

Study of the Impacts of Climate Change on the Women and Men of the Caribbean. Pilot Programme for Climate Resilience Countries

Prepared for the Inter-American Development Bank by:

Value for Women

Climate Change Division

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Pilot Programme for Climate Resilience Countries

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Photos: IDB and Regional Track of the Caribbean PPCR.





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List of acronyms and abbreviations

AP&FM	Adaptation Programme and Financing Mechanism
AVSF	<i>Agronome et Vétérinaires Sans Frontières</i>
CARDI	Caribbean Agricultural Research & Development Institute
CARPHA	Caribbean Public Health Agency
CDB	Caribbean Development Bank
CECCD	Council for Environment, Climate Change and Development
CEDAW	The Convention on the Elimination of all Forms of Discrimination Against Women
CER	Certified Emission Reductions
CERMES	Centre for Resource Management and Environmental Studies
CGA	Country Gender Assessment
CIMH	Caribbean Institute for Meteorology and Hydrology
CIMMYT	International Maize and Wheat Improvement Center (For its Spanish name <i>Centro Internacional de Mejoramiento de Maíz y Trigo</i>)
CNFO	Caribbean Network of Fisherfolk Organisations
CRFM	Caribbean Regional Fisheries Mechanism
CRI	Climate Risk Insurance
CSA	Climate-Smart Agriculture
ECU	Department of Climate Change, Environment and Development of Dominica
EFH	<i>Politique Nationale Egalité Femmes Hommes (Haiti)</i>
EWS	Early Warning System
FAO	Food and Agriculture Organisation of the United Nations
FGD	Focus group discussion
GIS	Geographic Information Systems
GBV	Gender-based violence
GDP	Gross domestic product

IDB	Inter-American Development Bank
IFC	International Finance Corporation
ILO	International Labour Organisation
IMF	International Monetary Fund
KII	Key informant interview
MEGJC	Ministry of Economic Growth and Job Creation
MFI	Microfinance Institution
MIT	Massachusetts Institute of Technology
NAWASA	Grenada's National Water and Sewerage Authority
NDC	Nationally determined contributions
NGO	Non-governmental organisation
OAS	Organisation of American States
OAS / CIM	Inter-American Commission of Women at the Organisation of American States
OECS	Organisation of Eastern Caribbean States
PANA	National Programme Action for Adaptation (Haiti)
PMDN	Natural Disasters Mitigation Programme (For its French <i>Programme de Mitigation des Desastres Naturels</i> (Haiti))
PPCR	Caribbean Pilot Programme for Climate Resilience
PSDH	<i>Plan Stratégique de Développement d'Haïti</i> (Haiti)
RWH	Rainwater harvesting
RCIIMS	Regional Coastal Zone Integrated Information Management System
SOFA	Solidarite Fan Am Yisyèn
SPCR	Strategic Programme for Climate Resilience
SREP	Scaling-Up Renewable Energy Programme
STEM	Science, engineering, technology, and mathematics
UNDP	United Nations Development Programme
UWI	University of West Indies
UWI-CERMES	Centre for Resource Management and Environmental Studies at the University of West Indies
WOCAN	Women Organizing for Change in Agriculture and Natural Resource Management

Introduction

Objectives

This report aims to provide an overview of the gender and climate resilience nexus in the Caribbean and provide gender-inclusive recommendations for climate resilience programmes in the region. This report has been developed within the context of the Caribbean Pilot Programme for Climate Resilience (PPCR) to support gender mainstreaming into the regional and national programme activities (see Box 1 for more information). Specifically, the report seeks to:

- **Understand** how men and women participate in climate resilience programmes and how gender inequalities are exacerbated by climate change impacts in the sectors covered by the PPCR.
- **Identify** institutional arrangements and good practices for integrating gender equality concerns in Caribbean climate resilience programmes.

The audience for this report is PPCR stakeholders (e.g. executing agencies, implementing partners, Inter-American Development Bank (IDB) country office teams) and project teams in the Caribbean seeking to mainstream gender into climate resilience projects in the future.



The Pilot Programme for Climate Resilience

The \$1.2 billion PPCR supports developing countries and regions to build their adaptation capacity and resilience to the impacts of climate change. First, the PPCR assists governments to integrate climate resilience into strategic development planning across sectors and stakeholders. Second, it provides concessional and grant funding to implement plans and pilot innovative public and private sector solutions. The Caribbean PPCR programme consists of six participating countries — Jamaica, Haiti, Dominica, Saint Lucia, Saint Vincent and the Grenadines, and Grenada — plus a Caribbean regional track of activities. Each country has its own investment plan, in addition to one for the Caribbean Region. Due to Haiti being the poorest and most vulnerable country in the region, findings and data differ significantly from those of the other PPCR countries.

Figure 1: Caribbean Regional Track of the PPCR Priority Areas

Country	PPCR Priority Areas
Regional	Agriculture and food security, coastal zone management, tourism, water resource management,* health,* ecosystem-based adaptation, infrastructure and land use planning*
Dominica	Agriculture and food security,* water quality and quantity,* fisheries,* climate change impacts on coastal and marine resources,* infrastructure and human settlements, tourism, forestry*
Grenada	Integrated water resource management,* capacity building at the sector level, and data management.
Haiti	Agriculture and food security,* coastal zone management and reconstruction* are the main areas, with sub-sectors/themes being infrastructure, land planning and data management*
Jamaica	Agriculture,* land-use planning,* health, water resources,* integrated coastal zone management,* climate proofing of national and sectoral plans, tourism, and data management*
Saint Lucia	Agriculture,* coastal and marine resources,* financial sector, forestry,* biodiversity, health,* human settlement, critical infrastructure, tourism, and water resource management.* Data needs were also highlighted for Saint Lucia, particularly the need for bathymetric and hydrometric data.*
Saint Vincent and the Grenadines	Monitoring and evaluation of environmental hazards,* watershed management,* public sensitisation and awareness, integrated planning, and data management*

*Denotes focus areas for gender assessment.

Methodology

The methodology for the gender assessment consisted of a literature review for secondary data and holding key informant interviews and focus group discussions with women in the PPCR countries for primary data collection and analysis. The PPCR priority areas of study were:



1. Agriculture



2. Natural resource management



3. Water management



4. Fisheries and marine resources



5. Health as it relates to climate change

These sectors are closely tied to the priority areas earmarked by each of the six PPCR countries for 2019 (see Figure 1 above).

The study was developed with the following inputs:

- **Desk review of 65 gender assessments, studies, and reports**
- **Key informant interviews (KIIs) conducted virtually and during field visits:** The study team conducted 24 interviews with key stakeholders and experts.

- **Three focus group discussions (FGDs) with women held in Dominica (18 participants) and Saint Lucia (12 participants)** identified by the National Skills Development Centre in Saint Lucia and the National Development Foundation of Dominica
- **A Gender Assessment session** with regional and national PPCR representatives in Kingston, Jamaica at the annual PPCR workshop (October 2019) to both sensitise them on gender and climate resilience issues and obtain inputs for the assessment

Why is gender important and mutually reinforcing for climate resilience?

1. Climate change impacts women and men differently, and resilience efforts must address these differences

Studies have shown that **men and women have different abilities to adapt to climate change because of gender inequalities in access to and control of assets, services, and decision-making**. Women's ability to adapt to climate change is further limited by gender norms, roles, and biases¹ present in communities, societies, places of work, and institutions of the Caribbean.

Climate change can exacerbate gender inequalities and in turn increase the vulnerability of communities and countries. Gendered impacts of climate change can negatively affect women's ability to generate income, reduce their time availability for productive and household endeavours, and further limit their mobility (see Figure 2 below). These in turn are further negatively impacted by women's lower levels of decision-making power and asset ownership needed to develop appropriate coping mechanisms. These series of factors create new challenges and opportunities for women's empowerment.



¹ FAO. 2011. *The State of Food and Agriculture 2010-11*. Food and Agriculture Organisation (FAO). Available online at <http://www.fao.org/docrep/013/i2050e/i2082e00.pdf>

Figure 2: Climate Change impacts on humans²

Climate Change Impact Pathways



Impact on Humans³

Agriculture

Crop failure and changes in land use
 Changed weed ecology competing with crops
 Risks to food security

Fisheries and marine resources

Fewer catches and changes in fishing routes increasing costs

Natural resource management

Soil degradation, animal migration, and reduction in pollinators
 Destruction/degradation of water sources

Natural disasters

Migration and violence
 Loss of assets
 Loss of life

Health

Increased range and seasonality of vector-borne diseases

Gendered impacts of Climate Change⁴



Income generation

Increased pressure on women and female headed households to diversify incomes due to crop failure, changes in land use, limited catches from fishing communities and loss of assets and migration combined with increased pressure to purchase food and increased health expenses



Time

Increased domestic and productive workloads for women - water and fuel collection, income generation, and care work. Greater incidence of and exposure to health risks and mortality due to disproportionate care work and limited access to health services.



Mobility

Increased vulnerability due to family disintegration as a result of migration and loss of life, further limiting mobility and access to markets or income generation alternatives. During emergencies women are also more likely to die due to gendered expectations around behaviour.



Decision making

Women are usually left out of decision-making processes related to resource allocation and prioritised services, affecting the impact of the response as their relevant perspective of family needs is dismissed.



Assets and land ownership

Limited alternatives for coping strategies given lack of land or home ownership.



Gender-based violence

During and after emergencies, women also face an increased risk of gender-based violence.

² Adapted from McMichael & Bertollini (2009) and WHO (2014).

³ Focus on PPCR priority sectors.

⁴ Informed by FAO (2017b).

2. Women are key change agents for climate resilience

Women are key drivers of environmental, agricultural, and income diversification necessary to promote climate resilience in Caribbean communities.⁵ Women play an important role in climate change adaptation and mitigation given their wide-ranging functions in the agricultural, fisheries and marine resources, and natural resources management. Additionally, women are change agents leading the environmental, agricultural, and income diversification necessary to promote climate resilience in the Caribbean.

Women's participation in leadership is linked to improved policies on climate change adaptation and mitigation.

Increasing women's voices at all levels of policy is likely to lead to a more equitable distribution of the benefits and costs of climate change policies and programmes while improving their efficiency, efficacy, and sustainability. Including **more women in positions of political authority and governing bodies has been associated with lower national carbon footprints.**⁶ Countries with a greater share of women parliamentarians are more likely to ratify environmental treaties and more stringent climate change policies.⁷ When women represent a greater share of a corporate board, the firm is more likely to disclose information on carbon emissions and commit fewer environmental violations.⁸

3. Gender equality improves agricultural productivity and water management

Closing gender gaps in agriculture can lead to increases in agricultural productivity and improve resource efficiency. It has been suggested that if women had equal access to productive resources as men, they could increase yields on their farms by 20% to 30%. This could raise total agricultural production in developing countries by 2.5% to 4%, which could in turn reduce the number of hungry people in the world by 100 to 150 million.⁹

Including women in the management of water projects can lead to better results.

Women tend to be responsible for collecting and managing water, although men are generally in charge of leading and organising water projects. A World Bank evaluation of 122 projects around the world found that water projects that included women in decision-making were six to seven times more effective than those that did not.¹⁰

⁵ World Bank Group (2011)

⁶ Ergas, C. and York, R. (2012). *Women's status and carbon dioxide emissions: A quantitative cross-national analysis*. *Social Science Research*. Volume 41, Issue 4, July 2012, Pages 965-976; McKinney, Laura & Fulkerson, Gregory. (2015). *Gender Equality and Climate Justice: A Cross-National Analysis*. *Social Justice Research*. 28. 10.1007/s11211-015-0241-y.

⁷ Norgaard, K. and York, R. (2005). *Gender and Society* Vol. 19, No. 4 (Aug., 2005), pp. 506-522; Mavisakalyan, A and Tarverdi, Y (2019). *Bankwest Curtin Economics Centre, Curtin Business School, Curtin University, GPO Box U1987, Perth WA 6845, Australia*

⁸ Liu, C. (2018). Are women greener? *Corporate gender diversity and environmental violations*. *Journal of Corporate Finance* Volume 52, October 2018, Pages 118-142

⁹ FAO (2011)

¹⁰ Narayan, D. (1995). *The contribution of people's participation: evidence from 121 rural water supply projects (English)*. *Environmentally Sustainable Development occasional paper series; no. 1*. Washington, DC: World Bank.

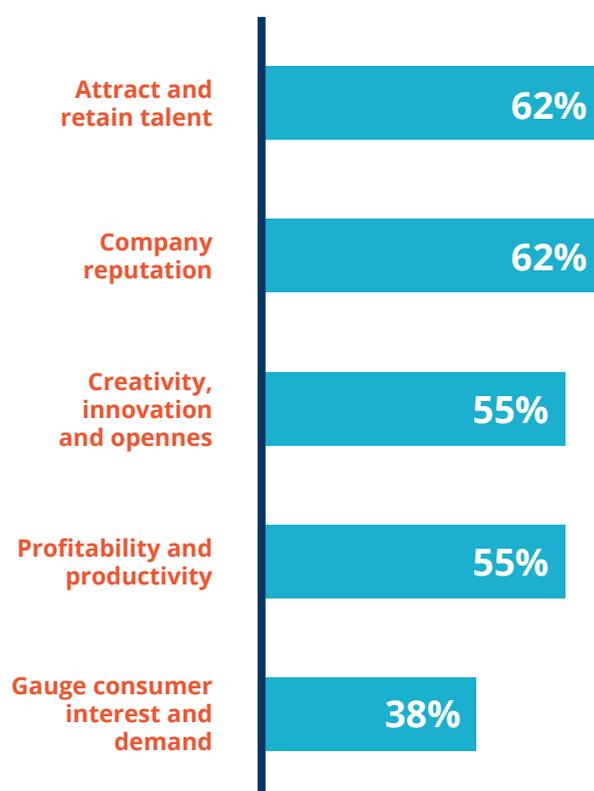
<http://documents.worldbank.org/curated/en/750421468762366856/The-contribution-of-peoples-participation-evidence-from-121-rural-water-supply-projects>

4. Gender equality is good for business, the economy, and development

Closing gender gaps can lead to increased economic growth. According to the International Monetary Fund (IMF), if women participated in the labour force at equal rates to men, the consequent gross domestic product (GDP) growth could bring significant gains to several Caribbean countries. The **potential boost to GDP if gender parity in labour force participation were reached could be as high as 12% in Saint Vincent and the Grenadines, 8% in Jamaica, and 7% in Saint Lucia.**¹¹ Additionally, closing gender gaps such as equalizing the number of women as employers and self-employed workers, as well as across occupational categories, could boost GDP further, ranging from 11% in Saint Lucia up to 27% in Suriname.¹²

In the Caribbean, an International Labour Organisation (ILO) study of 675 companies in the region found that **nearly half (46%) of all respondents reported a positive result from gender diversity and equality initiatives**, mainly focused on the ability to attract and retain talent (See Figure 3).¹³ These figures align with global and regional studies that link greater gender diversity in leadership to positive results. A study of 345 publicly listed firms in the Latin America by the McKinsey & Company found that companies with one or more women on their executive committees had earnings before interest and taxes 47% higher than those with all-male committees.¹⁴

Figure 3. Share of Caribbean enterprises reporting positive impacts on gender diversity and equality initiatives on their bottom line, 2017 ¹⁵



¹¹ IMF (2017) cited in ILO (2018). *Women in business and management: Gaining momentum in the Caribbean*.

¹² IMF (2017) cited in ILO (2018). *Women in business and management: Gaining momentum in the Caribbean*.

¹³ ILO (2017). *Women in business and management: Gaining momentum in the Caribbean*

¹⁴ McKinsey & Company (2013). *Women Matter: A Latin American Perspective. Unlocking women's potential to enhance corporate performance*. Nueva York: McKinsey.

¹⁵ ILO (2017). *Women in business and management: Gaining momentum in the Caribbean*

In Focus: Gender-Smart Climate Finance

Over the last few years, gender lens investing has been attracting the attention of multilateral development organisations, international development actors, and impact and mainstream investors alike. Gender lens investing is the deliberate incorporation of gender factors into investment analysis and decisions in order to improve social and business outcomes.¹⁶ On the other hand, the global climate finance architecture has been evolving over the last decade in order to better promote sustainable development, including steps towards greater gender equality and women's empowerment.¹⁷ There is an opportunity at the intersection of climate and gender finance to increase investment in climate resilience, traditionally receiving fewer resources when compared to mitigation efforts from global climate change finance mechanisms. A majority of global climate change finance is being directed at mitigation versus adaptation efforts. Hence, financing from local, national, and international programmes seeking to promote gender equality can be channelled towards climate change adaptation efforts by engaging women as change agents in climate resilience efforts.¹⁸

Emerging recommendations to increase gender-smart climate finance include the following:¹⁹

- 1** Identify existing investment vehicles that combine climate and gender, name them, and amplify them to make them easier for other investors to find them.
- 2** Investors can leverage their power by investing in and building gender-smart businesses in all sectors in their portfolios.
- 3** Increase investments and flow of capital to women-led enterprises in sectors that focus on climate adaptation, mitigation, and risk reduction.
- 4** Use sex-disaggregated data to articulate the business case and the environmental impact to attract more investors.
- 5** Create and share tools and materials to make it easier for investors and companies to start their own processes, informed by others' experience.
- 6** For sectors or regions where the needed vehicles don't exist, create them.

¹⁶ Value for Women (2019). *Impact Investing with a Gender Lens in Latin America*.

¹⁷ UNDP (2011) *Ensuring gender equity in climate change financing*.

¹⁸ Marquez, L. (2017). *Gender and Climate Resilience: Analysis and Toolkit. Case Study of Women in Gulf of Montijo, Panama*. Inter-American Development Bank.

¹⁹ For more information on these recommendations, please refer to the following article: Biegel, S. and Fries, R. (2020) *Climate Finance Needs a Gender Strategy. Here's How We Get Started*. [Online] Medium Venture Capital. Available at:

https://medium.com/@suzanne_1564/climate-finance-needs-a-gender-strategy-heres-how-we-get-started-9edeb6a51de1



Creating a Gender Market Alongside Carbon Markets

One global women-led organisation with expertise in both climate change and gender, Women Organizing for Change in Agriculture and Natural Resource Management (WOCAN), created the W+ Standard in 2015 to provide governments, NGOs, and companies a way to measure and finance women's empowerment outcomes within projects and supply chains. The W+ Standard is applied to energy, agriculture, and forestry projects that produce improved income, health, food security, leadership, time-saving, and education benefits for women and their families. It is a rigorous results-driven framework that quantifies and monetises the social capital created by women and rewards their contributions to climate resilience, sustainable environments, and communities through a donation provided to local women's organisations. Organisations and businesses that obtain satisfactory results generate W+ units and receive W+ certificates and labels that inform clients and customers of their support for women's empowerment. The W+ makes it possible for companies, funders, and individuals to obtain carbon emissions offsets that provide benefits to women, through purchases of Certified Emission Reductions (CERs) bundled with W+ units in a single package.

Gender and Climate Resilience Assessment

This section outlines the key findings relating to gender in the sectors covered. This chapter is divided into three sections:

I. General insights about gender and climate resilience in the Caribbean

II. Trends in gender and climate resilience in priority areas in the Caribbean

III. Gender and climate change overview in PPCR priority countries

General Insights: Gender and Climate Resilience in the Caribbean

The section below summarises insights from key informant interviews, focus group discussions (FGDs), and a review of secondary information. Twenty-four practitioners, academics, and government officials that were working on PPCR programmes and related activities or are experts at the intersection of climate resilience and gender equality were interviewed as part of this research.

1. There is a perception that gender inequalities are not a priority in the Caribbean

The majority of key informants working on PPCR programmes and participants at the PPCR Monitoring and Reporting Workshop noted that gender issues were not a priority or were deprioritised under competing agendas. Key informants working to redress gender inequalities in the region noted that this perception was a common challenge they had to overcome amongst those implementing public policies and beneficiaries themselves.

'I think there is a big difference with Africa, Latin America, but I do not think in the Caribbean you have this gender issue where men are particularly selected ahead of women to do activities in the project'. — PPCR implementing partner

'Climate change adaptation is relatively new [...] environmental projects were not focusing on climate change, so we had to push to include climate change in those projects, gender has been overshadowed by climate change'. — PPCR implementing partner

'In the Caribbean they think that because women have equal access to education, which they don't, that there are no gender inequalities'. — PPCR implementing partner

2. To find gender inequalities in the Caribbean, look beneath the surface

Gender experts interviewed as part of the project, in alignment with literature, noted that sometimes in the Caribbean, you need to look beneath the surface to identify gender inequalities. For example, while in the Caribbean more women than men are obtaining a university education, few of them are graduating with science, technology, engineering, and mathematics (STEM) degrees, which are necessary for many of the highly paid jobs that come with the fourth industrial revolution. Additionally, of particular importance for climate resilience efforts, experts noted that there is a significant difference in the progress different types of women have made. For example, young women have higher levels of unemployment than their male colleagues, and poor women in rural areas, many who are single heads of households, are more vulnerable to economic and climate shocks than educated, urban women.



There are many women in the project or in voluntary groups, but they are not necessarily leading, that is why it is important to see under the surface. There is still an issue about the glass ceiling [...] In Jamaica, people do not necessarily think there is a gender issue, more education on gender issues is needed. We try to introduce in our programmes how gender is related to climate change and how it affects women and vulnerable groups'. — Winsome Townsend, [Adaptation Programme and Financing Mechanism (AP&FM)] of the PPCR.

The percentage of women's participation in the Natural Disaster Mitigation Programme (PMDN) II is around 20%, below the quota for women and men required by the Haitian Constitution in the workplace, which stands at 33%. There is a pronounced imbalance in the technical categories, mainly because there are few women enrolling in the disciplines of Agronomy, Engineering and related fields'. — Key Informants from PMDN, Haiti



3. Women experience climate change differently, with the poorest and most vulnerable hardest hit

While women in the Caribbean have made significant gains in education, in entering the labour force and in running businesses, the reality for many women in rural areas continues to be one in which they are more likely to be poor, lack ownership of land and access to jobs, and are located in the areas most susceptible to climate change impacts and natural disasters. A majority of informants leading women's organisations or working on gender issues in the Caribbean particularly pointed to female-headed households, where women are the primary income earners, as being particularly vulnerable. Hence, national-level indicators on gender equality mask gaps between women's coping strategies, assets, and resilience to climate change.

For urban women who live in regions that have not been directly impacted by climate-related natural disasters recently, including younger women who were too young or not born the last time a major event occurred, climate change seems less relevant or urgent as it does not affect their day-to-day lives. For example, all of the participants in the focus groups in Castries, Saint Lucia noted that, while flooding had impacted their commutes and, in some cases, kept them from studying or working for a day, they did not have any major challenges related to excessive floods, which are one of the main climate change impacts on the island. However, the livelihoods of urban and rural participants in the focus groups in Dominica, a country which was severely damaged by Hurricane Maria in September 2017, were upended with most losing their homes, business, or crops.

'Climate change impacts are linked to gender as well as the economic context. Poor women are particularly affected by climate shocks, given the feminization of poverty. In cases where women are victims of assault or rape, they often lack access to resources. If climate change forces them to migrate, we often see cases where grandmothers have to take care of 5-year-old children in precarious situations, and simultaneously need to find a job as well, at that age'. — Sabine Lamour, Solidarite Fan Am Yisyèn (SOFA)

In Focus:**What does climate change mean to women in the Caribbean?**

There was a notable difference in how focus group participants in Saint Lucia and Dominica responded to the question, 'What does climate change mean to you?' Urban women participants in Saint Lucia, an island that has not had a major hurricane in over a decade, saw climate change as a nuisance while participants in Dominica, who just suffered through Hurricane Maria in 2017, saw it as a major threat to their livelihoods and businesses.

**Saint Lucia**

Climate change affects everybody whether it be too hot or cold. It affects everybody and I believe it is getting even worse. [...] To make it worse sometimes it means we have no electricity or water.

It means discomfort.

**Dominica**

Because now after experiencing Maria, it is about being resilient. After Maria if I didn't have a plan as to how to get my business back on track I would be like a fish out of water [...] It is about being prepared not just for hurricanes but also for warnings and heavy rainfall since you may have clients who cancel that day. So, I need strategies and plans to mitigate those impacts.

I find climate change scary and I think it is unfair because I am not doing anything to negatively impact the climate and you have all these countries that pollute, and our small island countries are impacted.

4. Understanding of and commitment to gender equality varies significantly.

A majority of participants working on climate resilience projects mentioned that in recent years, recognition of gender by practitioners and donors had increased, which has helped them reflect upon issues they had not thought about before. Some interviewees noted that, while at first, they were sceptical about the donor-imposed inclusion of gender in a project or the relevance of gender issues, it did highlight the importance of gender analysis. However, some interviewees mentioned that the quality of gender mainstreaming varies significantly and is focused on design rather than implementation.

“Agencies that are hoping to get Green Climate Fund grants are hiring short term gender consultants to show that they “have this” and then when a project gets proposed there is not an [sic] internal staffing’. — Climate change and gender expert

‘The discussion about gender is increasing. In my early days I was not that conscious of the differences, but as you grow in the science and the programmes that are relevant to people, it has become important to be gender-sensitive. We have looked at the use of information in Hurricanes and how information was used so differently between men and women. So, yes, we are very aware now of the gender differences of the sources of information and the responses of [sic] that information. We are becoming more aware of such gender differences’. — PPCR implementing partner

5. Evidence and good practices of climate Resilience and gender equality in the Caribbean region are lacking.

The assessment team reviewed 65 studies, practitioner documents, guides, and reports from international development actors and found that the literature looking at climate change and gender in the Caribbean is very scarce. Globally, there are many gender assessments for climate resilience programmes or reports looking at the intersection of climate adaptation and gender, but the content is very general and with limited examples. There is also a dearth of evidence-based solutions at the intersection of climate resilience and gender globally and, specifically, in the Eastern Caribbean countries and Haiti.

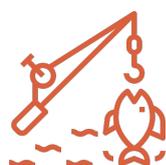
Trends:

Gender and Climate Resilience in Priority Areas

The following section provides a gender assessment of each of the PPCR priority areas:



Agriculture



**Fisheries
and marine
resources**



**Natural resources
and water
management**



Health



**Disaster risk
management**

1. Agriculture



In the Caribbean, **women's participation in the agricultural labour force is lower than men's**. Agriculture accounts for 23% of employment in the region, with the highest share in Haiti at 62%²⁰ where women traders known as *Madame Saras* are key actors in the agricultural value chain. Women account for 22% to 30% of the registered farmers in the region,²¹ a trend that has changed little since 1980.²² Women represent 22% and 30% of registered

farmers in Grenada and Jamaica, respectively.²³ The Caribbean Development Bank's (CDB) Country Gender Assessments (CGAs) suggest that the reason for low participation of women is linked to gender-based inequalities in accessing land, labour, financial capital, technology, and market information. This in turn also renders women ill-equipped to face the challenge of transitioning from subsistence to commercial agricultural production.²⁴

²⁰ FAO. (2013a). *Climate change, agriculture and food security in the Caribbean*. *Agronoticias: Agriculture News from Latin America and the Caribbean*. 28/February. <http://www.fao.org/in-action/agronoticias/detail/en/c/495191/>

²¹ FAO & CDB. (2019). *Study on the State of Agriculture in the Caribbean*. FAO, Rome. Available at: <http://www.fao.org/3/ca4726en/ca4726en.pdf?eloutlink=imf2fao>

²² FAO (2017a) *Atlas de la Mujer Rural en América Latina y el Caribe*. <http://www.fao.org/3/a-i7916s.pdf>

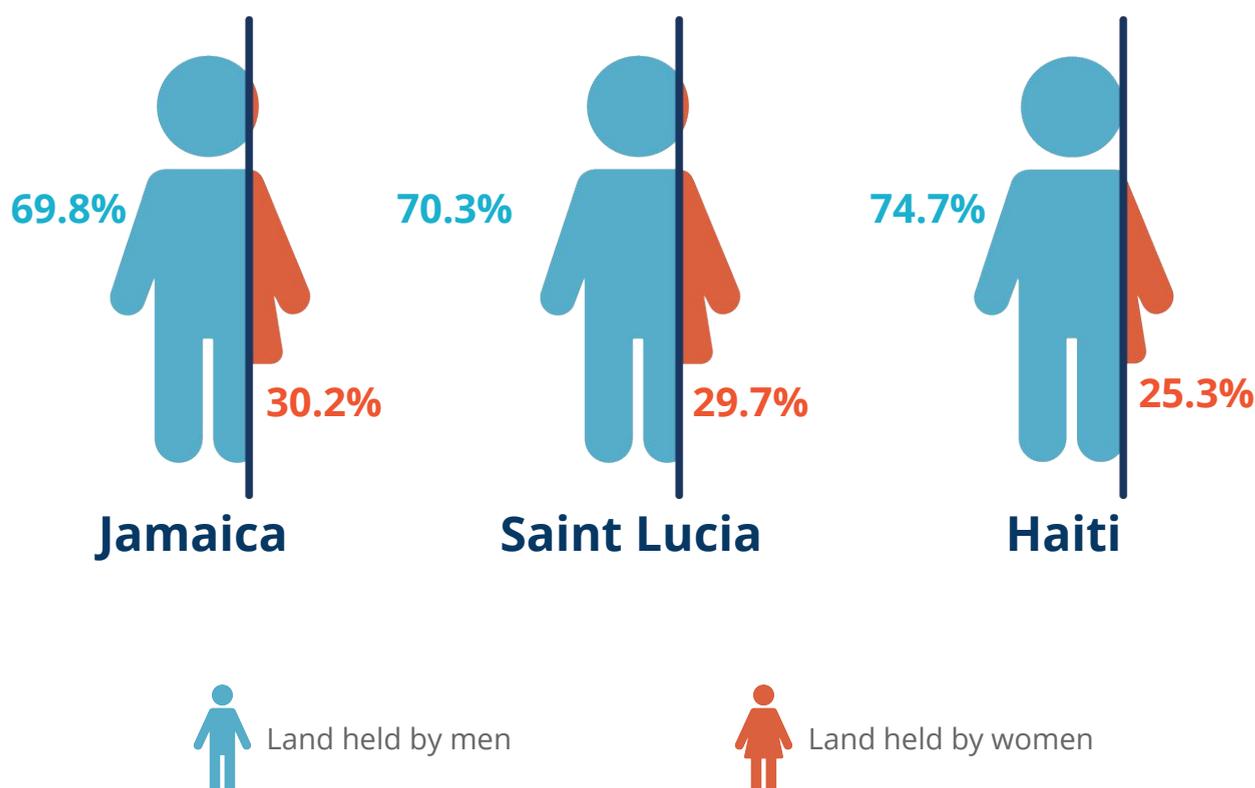
²³ FAO & CDB. (2019). *Study on the State of Agriculture in the Caribbean*. FAO, Rome. Available at: <http://www.fao.org/3/ca4726en/ca4726en.pdf?eloutlink=imf2fao>

²⁴ FAO & CDB. (2019, p.26). *Study on the State of Agriculture in the Caribbean*. FAO, Rome. Available at: <http://www.fao.org/3/ca4726en/ca4726en.pdf?eloutlink=imf2fao>

Women's lack of access to and control of productive assets limits their agricultural productivity.

Women's lack of rights to land ownership reduces their decision-making power, including over implementing climate mitigation measures, such as planting trees. In the Caribbean, less than one-third of agricultural land is held by women (see Figure 4; note that landholders are those who are in charge of agricultural production but not necessarily who owns the land)²⁵ In addition to inequitable decision-making, lack of land and asset ownership negatively impacts women's access to finance as they have less collateral. It is important to note that in all six PPCR countries, there are no legal restrictions to the inheritance of assets or ownership of land but rather gender disparities stem from cultural and gender norms.

Figure 4: Percentage of women agricultural producers who own land in selected countries²⁶



²⁵ FAO. (2015). *Gender and Land Rights Database*. Food and Agriculture Organisation of the United Nations. Available at: <http://www.fao.org/gender-landrights-database/en/>

²⁶ FAO. (2017a, p.28). *Atlas de las Mujeres Rurales de América Latina y El Caribe: Al tiempo de la vida y los hechos*. FAO, Santiago de Chile. Available at: <http://www.fao.org/3/a-i7916s.pdf>



Women have less access to inputs, such as training and technology, that would help them cope with the impacts of climate change on agriculture. According to the Food and Agriculture Organisation of the United Nations (FAO), only 5% of agricultural extension services globally are directed to women, and only 15% of agricultural extension personnel are women.²⁷ Additionally, the CDB finds that agriculture extension services in the region are not sufficiently sensitised to these challenges.²⁸ This means that women in agriculture are doubly disadvantaged in their access to the hard and soft resources necessary to improve production and resilience. However, studies have found that women tend to be as productive as men farmers when they have access to the same agricultural inputs and services,²⁹ representing an opportunity for agricultural services to improve women's climate resilience.

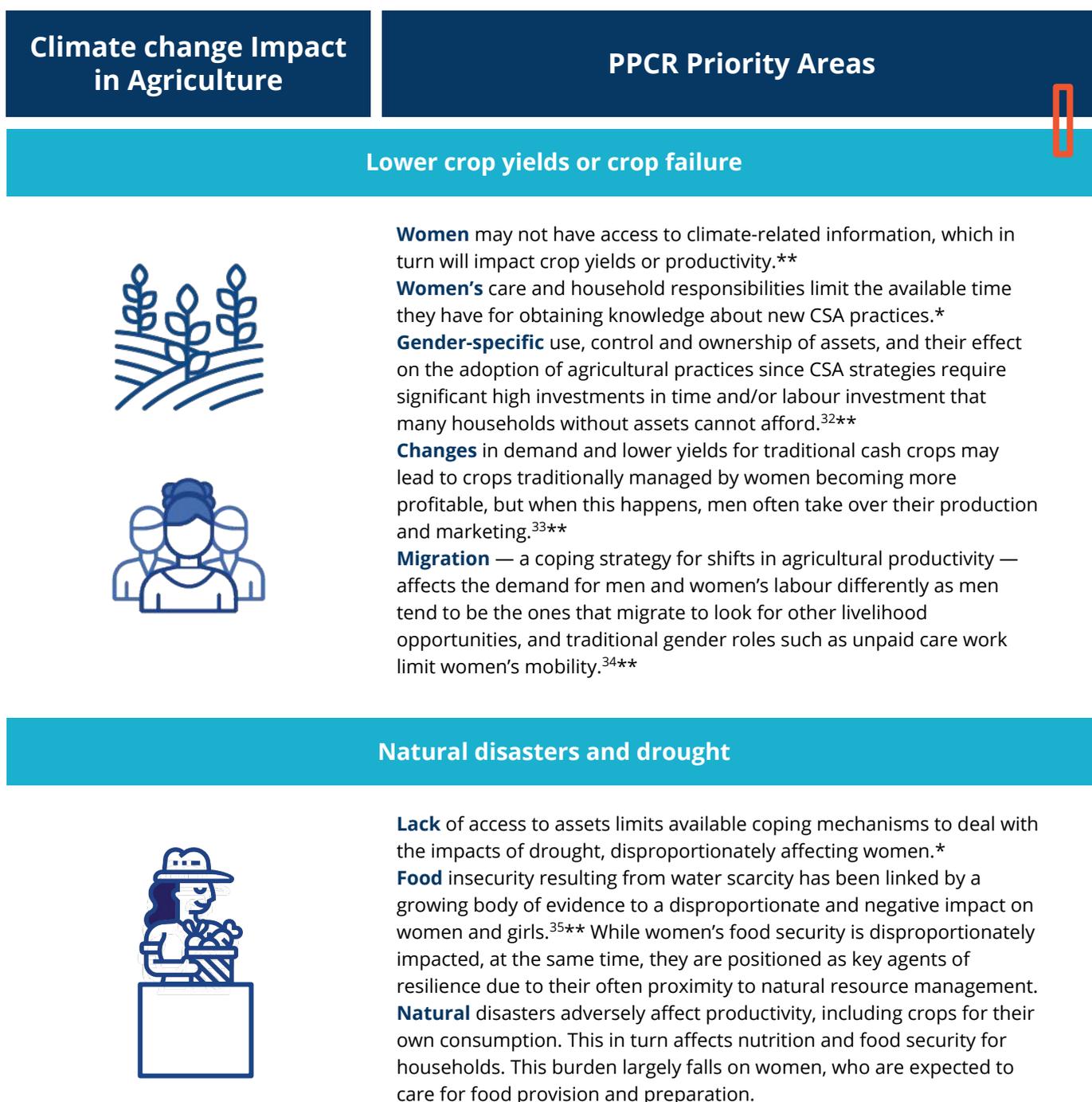
Women are under-represented in farmer cooperatives and producer groups. While women account for between a fifth and a third of farmers in the region, they are not represented equally in the decision-making processes in farmer organisations.³⁰ Hence, climate change adaptation interventions that rely on producer groups to deliver climate-smart agriculture (CSA) technical assistance and inputs will continue to replicate gender inequalities if women do not have a seat at the table.

²⁷ FAO. (2011). *The State of Food and Agriculture 2010-2011*. FAO, Rome. Available at: <http://www.fao.org/3/i2050e/i2050e00.htm>

²⁸ Rawwida Baksh and Associates (2016). *Country Gender Assessments (CGAs) Synthesis Report*. Caribbean Development Bank, Bridgetown.

²⁹ FAO. (2011)

³⁰ FAO and CDB (2018), *Study on the State of Agriculture in the Caribbean*.

Figure 5. Gendered impacts of climate change on agriculture³¹

Evidence base: *Backed by qualitative evidence, practitioner reports, or small, sample-sized studies of evidence in the Caribbean.
 **Backed by qualitative evidence in the Caribbean and global practitioner studies.
 ***Backed by qualitative evidence, practitioner studies, and data or empirical evidence.

³¹ Climate change impacts adapted from Iglesias, A. et al. (2009), *Impacts of climate change in agriculture in Europe: PESETA- Agriculture Study*, European Commission, Joint Research Centre.

³² FAO. (2017). *Climate Smart Agriculture Sourcebook. 2nd Edition*. Available at: <http://www.fao.org/climate-smart-agriculture-sourcebook/enabling-frameworks/module-c6-gender/c6-overview/en/?type=111>

³³ Berti et al., (2004); Doss (2001); Momsen (2010). Cited at FAO (2017) <http://www.fao.org/climate-smart-agriculture-sourcebook/enabling-frameworks/module-c6-gender/c6-overview/en/?type=111>

³⁴ Slavchevska et al. (2016). *Beyond Ownership: Women's and Men's Land Rights in SubSaharan Africa*. FAO.

³⁵ Segnestam, L. (2017). *Gendered Experiences of Adaptation to Drought: Patterns of Change in El Sauce, Nicaragua*. *Latin American Research Review*, 52(5), 807–823. DOI: <http://doi.org/10.25222/larr.220>

Women play different roles throughout agricultural value chains and are under-recognised.

These roles are not necessarily visible to government, private sector, and climate change adaptation projects. Some of these roles are outlined in Figure 6 below.³⁶

Figure 6: Women's Different Roles in Rural and Agricultural Households



Women as Producers: Producers are responsible for cash crop production, provide support for other household members (e.g. spouses) in commercial crop-producing efforts or tend to subsistence crops in the household. Primary production includes harvesting, planting, weeding, irrigation, and processing. Due to a variety of traditional gender norms (e.g. land and cooperative membership being passed down to male family members) and women's lack of land or asset ownership, women tend not to be members of cooperatives or producer groups. Additionally, women's agricultural roles are not necessarily recognised by public and private sector agricultural development programmes or services.



Women as leaders: While women in the Caribbean lead many climate resilience efforts, they continue to be under-represented in the leadership of local decision-making bodies like agricultural enterprises, water councils, and cooperatives that make important decisions regarding climate resilience.



Women as hidden influencers:³⁷ Women are agricultural extension officers, field staff of climate resilience projects, and workers or mid-level managers or administrators in agribusinesses, cooperatives, energy companies, and other relevant institutions. Mid-level managers serve as deputies to leaders and potentially advance to leadership roles over time. They are women who provide advice and services to others in their industry, and who, therefore, have a disproportionately strong influence on their peers because of the information they share and the respect they have.



Women as entrepreneurs: Women entrepreneurs play a vital role in the diversification of household income through entrepreneurial activities in rural areas and are important for household's resilience to climate change. Regardless of who produces, women are heavily involved in the marketing of agricultural crops.³⁸ The CDB finds that women engage as 'higglers' (intermediaries), purchasing directly from farmers and reselling to various markets, including overseas.³⁹



Women as agro-processing employees and day labourers: Farmers and workers provide a stable supply of goods and labour. Women and men may also adapt to climate change by working off their own farms, either in jobs that require permanent migration or as day labourers. This work is upending traditional gender roles in some farming households, although research suggests that many male farmers are resistant to these changes, creating tension in marital relationships.⁴⁰

³⁶ Framework adapted from: Root Capital. (2014). *Applying a Gender Lens to Agriculture Farmers, Leaders, and Hidden Influencers in the Rural Economy. Issue Brief NO. 2.*

³⁷ Framework adapted from: Root Capital. (2014). *Applying a Gender Lens to Agriculture Farmers, Leaders, and Hidden Influencers in the Rural Economy. Issue Brief NO. 2.*

³⁸ Value for Women. (2018). *Gender Inclusion for Climate-Smart Agribusinesses: A practical framework for integrating gender in climate-smart agriculture.*

³⁹ FAO and CDB. (2019). *Study on the State of Agriculture in the Caribbean Rome. 212 pp. Licence: CC BY-NC-SA 3.0 IGO*

⁴⁰ Alston M, Whittenbury K. (2013). "Does climatic crisis in Australia's food bowl create a basis for change in agricultural gender relations?" *Agric Hum Values* 30(1):115-128.



Insights from the Field

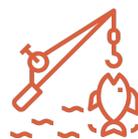
While there have been advances in gender equality for educated women, inequalities continue to be exacerbated for the most vulnerable women who tend to be in rural areas. There is an interesting dichotomy in the roles of women, since women may often run the organisations supporting farmers or climate resilience efforts. But many women in rural areas and female-led households continue to be poorer and more vulnerable to climate change.

Educational and communication campaigns must be tailored to resonate with women and men. Women may be more receptive to messages that involve changing practices that harm the environment. This finding aligns with work from other organisations which has found that tailoring messages for environmental services or products to women or taking their needs into account can improve the results of communications and marketing campaigns.

Women are more open to adopting agricultural innovations than men. A couple of agriculture experts mentioned that women are more willing to adopt agriculture innovations, which can improve the adaptation capacity of women farmers and encourage the adoption of practices in the household as a whole.

“Men need to see the results of the practice, they are not willing to completely change the traditional practices. However, we have seen that women may be more open to adopt new practices and sometimes they convince their husbands to adopt those practices”. — Nitya Chanana, Gender and agriculture expert, [International Maize and Wheat Improvement Center (CIMMYT)]

2. Fisheries and Marine Resources



There are very few women fishers but plenty of women fisherfolk involved in the fishing value chain.⁴¹ In the Caribbean, men tend to do the fishing while women are concentrated on the processing and marketing side of the industry.⁴² For example, in Dominica, while most fishers are men, 90% of fish vendors are women.⁴³ In a way, women are the face of the fishing industry⁴⁴ since they tend to handle the shops and consumption side of the fishing value chain. A study carried out by the Centre for Resource Management and Environmental Studies (CERMES) found that in value chains where fishers with low capital investment sell directly to institutional buyers (e.g. spear fisheries,

small lobster, and conch diving), these are dominated by men. As fish value chains become more complex, women can be found in commercial, marketing, and processing activities (e.g. tackle shops in Jamaica and dispensing diesel fuel in Barbados)⁴⁵ since there are more jobs on land, beyond doing the actual fishing. **Women's roles are not always visible in the fisheries value chain.** Despite the significant presence of women in the sector, most data collection systems of developing country fisheries fail to capture the actual contributions of small-scale fisheries and aquaculture to employment, production, and consumption.⁴⁶



Women in fisheries are usually very resourceful, they are better about reducing wastage and men not, they can be very clever at business, they have a big role to plan regarding VC management — Susan Singh Renton, Deputy Executive Director, [Caribbean Regional Fisheries Mechanism (CRFM)]

There are few women in fisheries decision-making bodies. There is little literature on gender, fisheries, and the Caribbean, but a few studies have delved into the issues. The CDB finds that most fisherfolk organisations in the Caribbean countries that have undergone gender assessments are dominated by men boat owners and fishermen, with a few exceptions, such as Barbados.⁴⁷ In a study of Grenada fisheries, men determine the rule systems for access rights, while women are engaged in post-harvest fish selling.⁴⁸ A small-scale study by the Centre for Resource Management and Environmental Studies at the University of West Indies (UWI-CERMES) of the members of the CNFO found that 53% do not agree that men and women participate equally in fisheries decision-making processes.⁴⁹

⁴¹ Siar & Kalikoski. (2016). *Strengthening organizations and collective action in fisheries. Towards the formulation of a capacity development programme*. FAO, Rome. Available at: <http://www.fao.org/3/a-i6205e.pdf>

⁴² FAO. (2013b). *Good practice policies to eliminate gender inequalities in fish value chains*. Available at: <http://www.fao.org/3/i3553e/i3553e.pdf>

⁴³ Government of the Commonwealth of Dominica (2017). *Post-Disaster Needs Assessment Hurricane Maria*. September 18, 2017. Available at: https://www.gfdr.org/sites/default/files/publication/Dominica_mp_012418_web.pdf

⁴⁴ UWI CERMES. *Gender scoping preliminary report: Caribbean fisheries in the context of the small-scale fisheries guidelines*, CERMES Gender in Fisheries Team (GIFT), Technical Report No. 86 Available at: https://www.cavehill.uwi.edu/cermes/projects/giftdocs/wif_forum_2019_summary_report_27_may_2019.aspx

⁴⁵ FAO and CDB. (2019). *Study on the State of Agriculture in the Caribbean* Rome. 212 pp. Licence: CC BY-NC-SA 3.0 IGO

⁴⁶ FAO. (2013). *Good practice policies to eliminate gender inequalities in fish value chains*. Available at: <http://www.fao.org/3/i3553e/i3553e.pdf>

⁴⁷ <http://www.fao.org/3/ca4726en/ca4726en.pdf?eloutlink=imf2fao>

⁴⁸ Finlay, J., McConney, P. Hazel Oxenford (2013). *Tenure in the Grenada beach seine fishery*. *Land Tenure Journal* N. 1. 2013 Available at: <http://empres-i.fao.org/nrla/nr/tenure/land-tenure-journal/index.php/LTJ/article/viewArticle/77>

⁴⁹ UWI-CERMES, with partners to conduct applied interdisciplinary research and outreach to better understand and assist with policy and practice concerning gender in Caribbean small-scale fisheries.

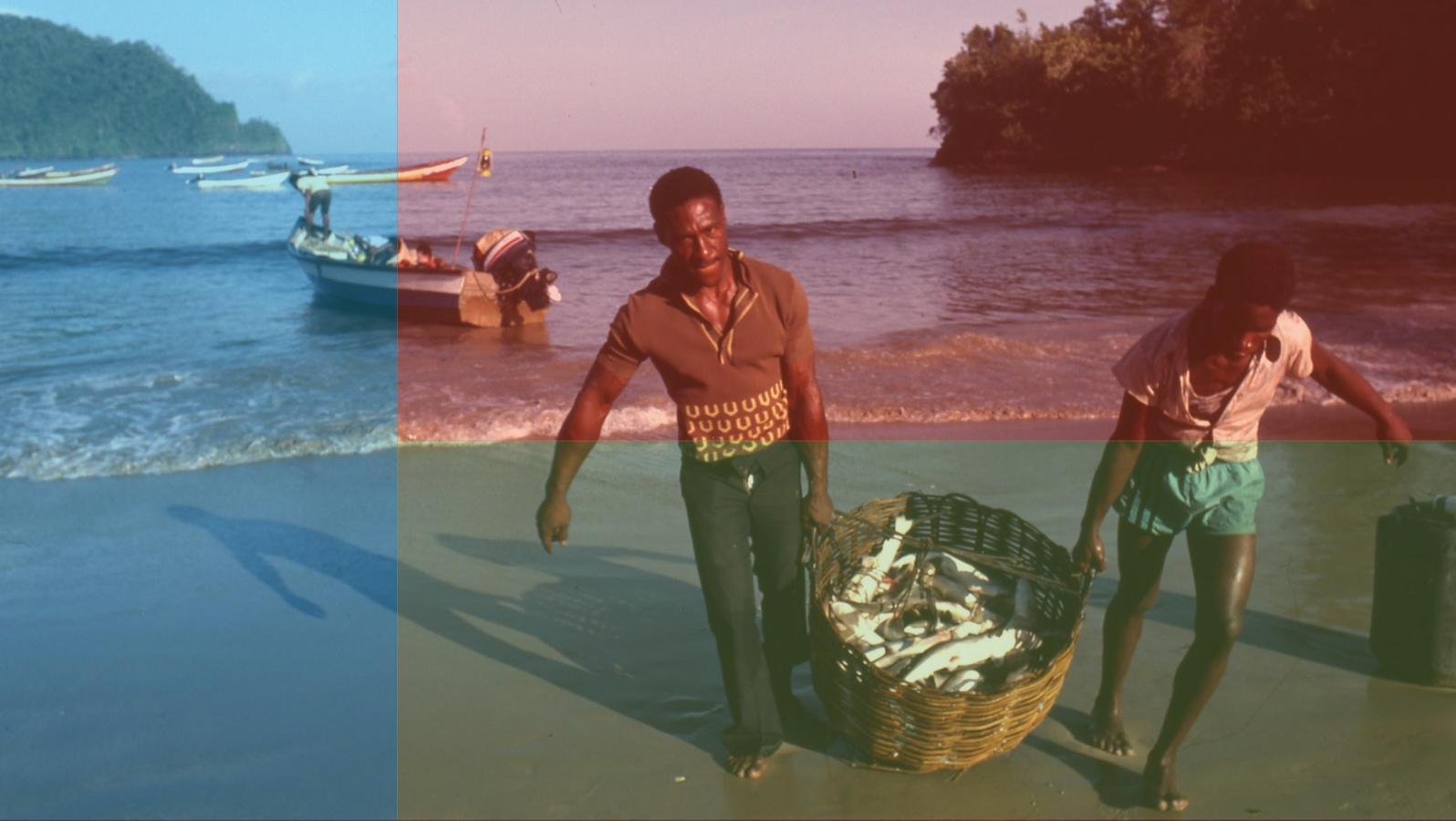


Figure 7: Gender inequalities in Fisheries and Marine Resources

<h3>Climate Impact in Fisheries and Marine Resources</h3>	<h3>Gendered Impacts</h3>
<p>Lower fish catches or new fish movement patterns</p>	<ul style="list-style-type: none"> <input type="checkbox"/> As climate change reduces fish stocks, the roles in the value chain change. Women’s ability to migrate or mobilise over great distances is limited compared to men’s given their traditional gender roles as caregivers of the family and household as well as a lack of transport to distant markets.** <input type="checkbox"/> Women tend to focus on near-shore activities (e.g. gleaning for invertebrates) and men’s in offshore boat fishing⁵⁰ leaving women with few options if climate change leads to reduced near-shore supplies of fish or other animals.*
<p>New markets utilisation of new commercial fish and under-utilised species</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Women generally have less access than men to transport, market information, information on quality standards and regulations, and marketplaces. Women are also exposed to greater harassment in markets and have more difficulty in finding secure storage facilities.*

Evidence base: **Backed by qualitative data, practitioner reports, or small, sample-sized studies of evidence in the Caribbean.*
***Backed by qualitative data in the Caribbean and global practitioner studies.*
****Backed by qualitative data, practitioner studies, and data or empirical evidence.*

⁵⁰ Kleiber, D. et al. (2014). Gender and small-scale fisheries: A case for counting women and beyond. *Fish and Fisheries*. 16. 10.1111/fof.12075.



Insights from the Field

Since men make up a majority of members in fisheries associations, they share information with other men. This leaves women out of gaining access to key industry information. Key informants noted that women may not be formally part of fisheries associations, and a lot of climate-related data and technical support services is disseminated through these organisations. As a result, women are not only left out of decision-making but also lack crucial information on how to cope with changing climate.

Men can leave when there are fewer fish stocks; women cannot. Other experts noted that when lower fish stocks lead to fisherfolk looking for new economic livelihoods, men can go to other cities or regions and work in the construction or service sectors while women from fishing communities would find that more difficult, given their role as caregivers in the household.

A lack of assets underpins inequalities for men and women in fisheries. An expert on fishing and gender issues cited that a project she had worked on identified power imbalances existing for both men and women who did not have assets (e.g. boats or motors) that could help them access credit, more boats, and hire crew members.



“Women’s and men’s livelihoods to be sustainable, the challenge with the role of women is that men have more opportunities for alternative livelihoods than women. “If we do not fish something we can do something else like be a taxi driver. Those options are not available for women.” — Sharon Hutchinson, Department of Agricultural Economics and Extension, University of West Indies (UWI)

3. Natural Resources and Water Management



Women and men have differentiated access and use of natural resources, which may make them more vulnerable to climate change events. These gender inequalities are reflected in the management of land, water, and forest resources in the Caribbean.

The implementation of land administration systems includes gender biases that perpetuate gender inequalities. Land administration systems, for example, may not have the resources to sufficiently secure tenure rights for both poor men and women, which in turn affects their ability to invest in farming and disaster risk and resilience measures. These challenges in land administration are exacerbated for women who have barriers to accessing land and other productive assets.⁵¹



'Look at the inheritance laws, there is an imbalance, not in the law but in the practice since men inherit the family land. The imbalance is in the practice, the social norms that say that women will be looked after by a man so they do not really need the land, and if they get married the land will go to another family...' — Leith Dunn, Head of the Institute for Gender and Development Studies, UWI

Water can be thought of as an asset, a service, and a space, and gender is impacted by each of these factors (see Figure 8).⁵² Women can play a key role in managing water in each of these three dimensions but are often overlooked or their roles are not visible to climate resilience or CSA programmes.

Water as an Asset. In Caribbean communities, there is a gendered division of labour for carrying water where men tend to carry water mainly for agricultural and livestock activities, and women carry water for cooking, washing, health, and hygiene purposes.⁵³ A study in Jamaica found that women tend to carry around 17%-35% more litres of water daily than men.⁵⁴

Water as a Space. As some of the main collectors and users of water, women's voices and perspectives are not well reflected in water governance, and women remain under-represented and disadvantaged in decision-making on the use, allocation, and governance of water. Hence, women's multiple uses of water are not necessarily considered in decision-making (e.g. for irrigation, livestock, and personal and domestic use).

⁵¹ Bynoe et al. Cited at FAO & CDB. (2019).

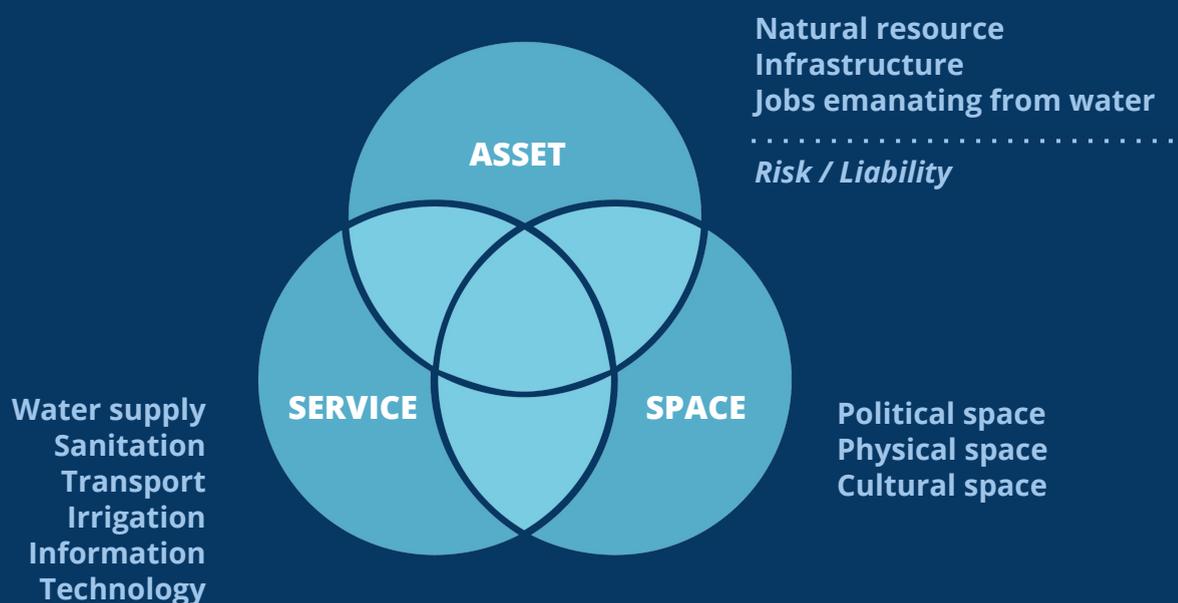
⁵² Das, M. B. (2017). "The Rising Tide: A New Look at Water and Gender." World Bank, Washington, DC.

⁵³ UNDP (2009). Case Study on the Impact of Climate Change on Water and Sanitation in Jamaica. Available at: https://www.undp.org/content/dam/rblac/docs/Research%20and%20Publications/Crisis%20Prevention%20and%20Recovery/UNDP_RBLAC_CaseStudyJamaica.pdf

⁵⁴ UNDP (2009). Case Study on the Impact of Climate Change on Water and Sanitation in Jamaica. Available at: https://www.undp.org/content/dam/rblac/docs/Research%20and%20Publications/Crisis%20Prevention%20and%20Recovery/UNDP_RBLAC_CaseStudyJamaica.pdf

Water as a Service. Women are under-represented in water services and utilities in the Caribbean. In a 2018 gender assessment of Grenada’s National Water and Sewerage Authority (NAWASA), women represented only 21.8% of employees with men dominating the technical fields (e.g. production quality, transmission, and distribution) and women the administrative roles (e.g. human resources, legal, communications).⁵⁶ While no sex-disaggregated data from water utilities in PPCR countries were found, a gender assessment of the Barbados Water Authority found that women made up just 28% of the workforce. Additionally, only 3.5% of the women working in the Barbados Water Authority in 2016 were employed in technical roles compared to 48.5% of men.⁵⁷

Figure 8: How do we think about the gendered nature of water?⁵⁵



⁵⁵ Das, M. B. (2017). "The Rising Tide: A New Look at Water and Gender." World Bank, Washington, DC.

⁵⁶ Green Climate Fund (2018a). Gender Assessment - FP059: Climate-Resilient Water Sector in Grenada (G-CREWS). 30 April 2018.

⁵⁷ Green Climate Fund (2018b). Gender Assessment - FP060: Water Sector Resilience Nexus for Sustainability in Barbados (WSRN S-Barbados). 30 April 2018.

Figure 9: Gendered Impacts of Climate Change on Natural Resources Management

Climate Change Impact in Natural Resources Management	Gendered Impacts
Deforestation / Scarcity of wood and fuel	<ul style="list-style-type: none"> <input type="checkbox"/> Women, who are in charge of firewood collection, may have to spend more time and resources obtaining firewood.
Water scarcity	<ul style="list-style-type: none"> <input type="checkbox"/> Asset: Water scarcity means less time available for personal, household, and productive activities by women as they spend more time collecting, harvesting, and carrying water. <input type="checkbox"/> Space: Women are not always involved in the decision-making of community water boards or leadership of water services when decisions are made to solve water scarcity problems. <input type="checkbox"/> Service: Agricultural water management has been effective in increasing yields and food production worldwide. If water professionals continue to be men, then the knowledge and information of new agricultural water management techniques such as rainwater harvesting (RWH) and flood control will be dominated by men.
Changes in rainfall	<ul style="list-style-type: none"> <input type="checkbox"/> Rainfall shocks result in income shocks that trigger a range of household-level coping strategies and policy responses, where women and female-headed households may have fewer assets to cope.

Evidence base: **Backed by anecdotal evidence in the Caribbean.*
***Backed by anecdotal evidence in the Caribbean and global practitioner studies.*
****Backed by anecdotal data, practitioner studies, and data or empirical evidence.*



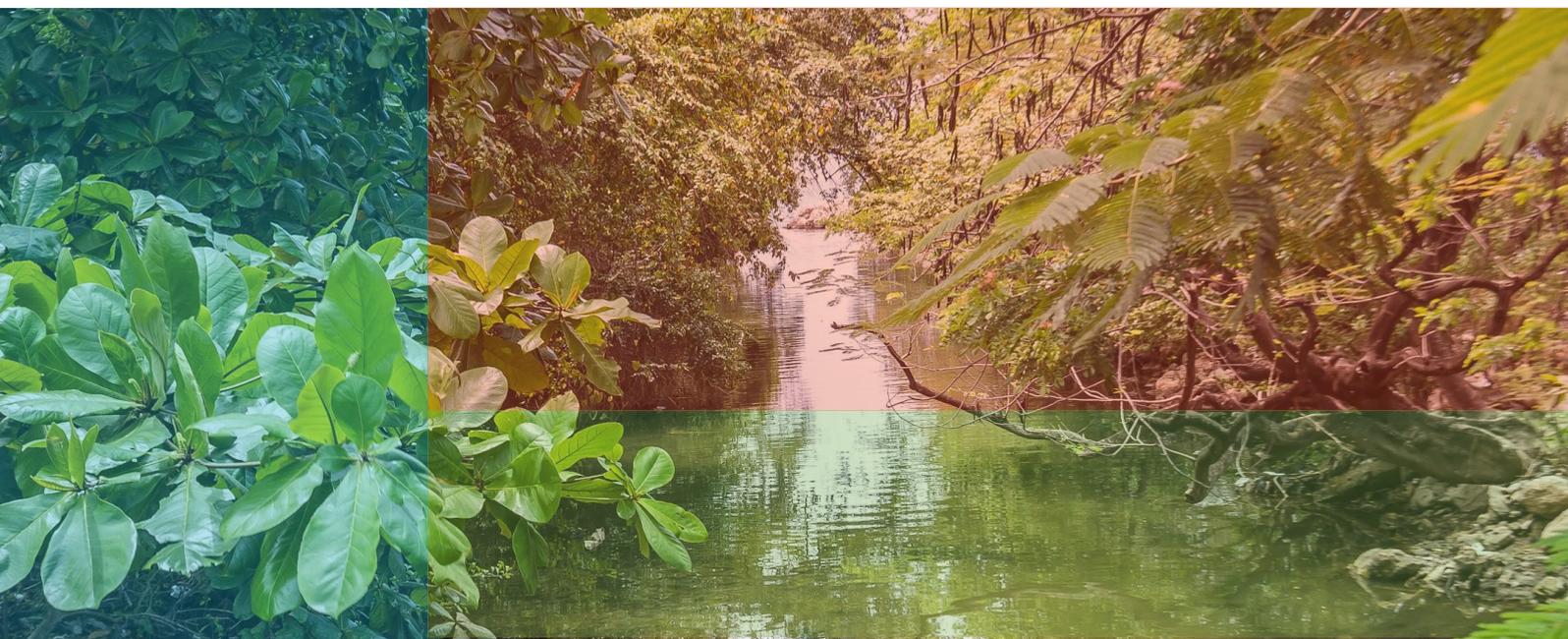
Insights from the Field

Water scarcity increases women's labour burden. Key informants working on agriculture and natural disaster mitigation programmes mentioned that water scarcity has a disproportionate negative impact on women and children. Key informants from English-speaking Caribbean countries did not raise the issue of gender inequalities with regards to water management as prominently as informants in Haiti, pointing to the prominence of the issue in Haiti.



'Some of the key negative impacts of climate change include the loss of livestock and having to go search for water in far-off locations. Moreover, the responsibility of finding and fetching water falls primarily on women and children'. — Key informants from the Programme for the PMDN, Haiti

'In many places, women are responsible for collecting water for domestic and sometimes for agriculture purposes as well. When you provide technology or have interventions to help them access water more easily, that reduces the labour burden'. — Nitya Chanana, Gender and Agriculture expert, CIMMYT



4. Health



Changes in the climate can impact the transmission of vector-borne diseases, disproportionately impacting women.⁵⁸

In particular, the mosquito vectors that carry dengue, malaria, chikungunya, and Zika are impacted by climate change, which in turn creates conditions allowing the diseases to flourish.⁵⁹ For example, studies have pointed to climate change-related drought as a catalyst for the Zika epidemic that hit northern Brazil in 2014 and 2015. In response to the drought, men and women in the region began storing large quantities of water in the households, inviting mosquitoes into the home. The ensuing Zika epidemic increased the number of pregnant women who then gave birth to newborns with congenital malformations.⁶⁰

Women bear a disproportionate burden, due to their role as caregivers,⁶¹ of responding to health issues after extreme events or natural disasters.

The constraints to women's mobility, largely due to gender norms and lack of assets and savings, are exacerbated in the aftermath of natural disasters. The resource implications of caring for household members, both economic and time, are increased.⁶² The increased time spent caring for household members' health and other recovery and coping activities impact women's ability to engage in economic livelihoods and other activities, whether inside or outside of the home. The ongoing COVID-19 pandemic is exposing these gender inequalities, as quarantine rules prohibit children from attending school or daycare, and women have to manage an increased caring burden whereby limiting their income-earning opportunities.⁶³ Finally, when faced with extreme events, women who are pregnant and lactating face additional challenges in caring for themselves, their family, and their community, as they have an increased need for food and water, and their mobility is limited.⁶⁴

A decline in food security and livelihood opportunities from climate change can also cause considerable stress and mental illness for women and men.

The stress, anxiety, depression, and other mental health conditions manifest differently in women and men. In the case of males, evidence demonstrates that men face a considerable burden given the socially ascribed expectation that they should provide economically for the household.⁶⁵ There is empirical evidence linking drought and suicide among men in Australia⁶⁶ and India.⁶⁷

⁵⁸ Randolph & Rogers. (2010) The arrival, establishment and spread of exotic diseases: patterns and predictions. *Nat Rev Microbiol.* 2010 May;8(5):361-71. doi: 10.1038/nrmicro2336. Epub 2010 Apr 7. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/20372156>

⁵⁹ Upton, J. (2018). Scientists Tease Out Climate Change's Role in Zika Spread. *Climate Central.* August 4. <http://www.climatecentral.org/news/scientists-tease-out-climate-role-zika-spread-20582>

⁶⁰ Shlomit, P and Semenza, J (2016) El Niño and climate change—contributing factors in the dispersal of Zika virus in the Americas?. *The Lancet.* February 01, 2016. DOI:[https://doi.org/10.1016/S0140-6736\(16\)00256-7](https://doi.org/10.1016/S0140-6736(16)00256-7)

⁶¹ Brody, A. et al. (2008) *Gender and climate change: mapping the linkages: A scoping study on knowledge and gaps.* Institute of Development Studies, Brighton.

⁶² Brody, A. et al. (2008) *Gender and climate change: mapping the linkages: A scoping study on knowledge and gaps.* Institute of Development Studies, Brighton.

⁶³ UNFPA (2020). COVID-19: A Gender Lens. *Protecting Sexual and Reproductive Health and Rights and Promoting Gender Equality. Technical Brief.* March 2020.

⁶⁴ WHO (2014). *Gender, Climate Change and Health.* Available at: https://apps.who.int/iris/bitstream/handle/10665/144781/9789241508186_eng.pdf

⁶⁵ WHO (2014). *Gender, Climate Change and Health.* Available at: https://apps.who.int/iris/bitstream/handle/10665/144781/9789241508186_eng.pdf

⁶⁶ Nicholls N et al. Inter-annual rainfall variations and suicide in New South Wales, Australia, 1964–2001. *International Journal of Biometeorology*, 2006, 50:139–143.

⁶⁷ Behere PB, Behere AP. Farmers' suicide in Vidarbha region of Maharashtra state: A myth or reality? *Indian Journal of Psychiatry*, 2008, 50:124–127.



Studies have found a differentiated response to disasters in men and women, with women presenting a greater prevalence of mood and anxiety disorders and men presenting an elevated prevalence of alcohol and other substance use disorders.⁶⁸ Further, studies have found that men and boys are less likely than women and girls to seek help for stress and mental health issues.⁶⁹ Finally, a study exploring the recovery experience after disasters pointed to barriers and disadvantages women face in terms of decision-making after disasters strike, potentially slowing down their recovery.⁷⁰

GBV continues to impact a significant proportion of the population. One in four women (25.2%) had experienced physical violence by a male partner, and 7.7% had been sexually abused by their male partner in the Caribbean according to a report by the Interamerican Development Bank.⁷¹ Further, a report submitted to The Convention on the Elimination of all Forms of Discrimination Against Women (CEDAW) by the International Lawyers Office in 2016 estimated that between 25% and 70% of Haitian women have been victims of GBV.⁷²

Natural disasters can lead to increased GBV. In 2017, during the aftermath of Hurricane Maria, cases of GBV in Puerto Rico increased.⁷³ In Dominica, a Hurricane Maria post-disaster needs assessment found that the majority of cases being heard in courts after the hurricane were related to GBV.⁷⁴ In Haiti, the increase in GBV after the 2010 earthquake was attributed to factors such as low socio-economic status, low education levels, and high unemployment rates in addition to rigid masculinity norms especially regarding male-female relationships.⁷⁵

⁶⁸ Goldmann, E., et al. (2014). 'Mental health consequences of disasters' Annual Review of Public Health.

⁶⁹ Masika, R. (2002). Gender, development, and climate change. Oxfam.

⁷⁰ University of Colorado at Boulder. (2019) "When natural disasters strike, men and women respond differently: Females tend to take risk more seriously, but their voices often go unheard."

⁷¹ Hosein, G and Basdeo-Gobin, T. (2019). Engaging Men to End Violence Against Women and Girls in the Caribbean: A Comparative Desk RevBest Practices. Interamerican Development Bank.

⁷² Hosein, G and Basdeo-Gobin, T. (2019). Engaging Men to End Violence Against Women and Girls in the Caribbean: A Comparative Desk RevBest Practices. Interamerican Development Bank.

⁷³ Vigaud-Walsh, F (2018). Hurricane Maria's Survivors: "Women's Safety Was Not Prioritized". Issue Brief. Refugees International.

⁷⁴ Government of the Commonwealth of Dominica (2017). Post-Disaster Needs Assessment Hurricane Maria. September 18, 2017. Available at: https://www.gfdr.org/sites/default/files/publication/Dominica_mp_012418_web.pdf

⁷⁵ Campbell, Doris, Hossein Yarandi and Jacquelyn Campbell. 2016. "Caring for Haitian women after Hurricane Matthew – what we learned from the 2010 earthquake." The Conversation. Available at: <https://theconversation.com/caring-for-haitian-women-after-hurricane-matthew-what-we-learned-from-the-2010-earthquake-66799>

Figure 10: Gendered Impacts of Climate Change on Health

Climate Change Impact on Health	Gendered Impacts
<p>Warmer temperatures and increased rainfall</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Vector-borne diseases like Zika disproportionately impact maternal and child health.** <input type="checkbox"/> Women are the primary caregivers, and their livelihoods are particularly impacted by epidemics and disease outbreaks. <input type="checkbox"/> Warmer temperatures and increased rainfall may extend the range and prolong the seasonality of transmission of vector-borne diseases whose impacts disproportionately impact women (e.g. Zika) or strain women's roles as caregivers in the household.* <input type="checkbox"/> Malnutrition due to food shortages after crop losses. Women are more prone to malnutrition, especially when they are pregnant or lactating.^{76*}
<p>Extreme events cause indirect effects on health</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Natural disasters lower the life expectancy of women more than men.^{77**} <input type="checkbox"/> Women's role as primary caregivers means they take on a significant burden of household health and care responsibilities in the aftermath of extreme events. <input type="checkbox"/> There is increased violence against women and girls.

Evidence base: **Backed by qualitative evidence, practitioner reports, or small, sample-sized studies of evidence in the Caribbean.*

***Backed by qualitative evidence in the Caribbean and global practitioner studies.*

****Backed by qualitative data, practitioner studies, and data or empirical evidence.*

⁷⁶ World Health Organisation. (2014). *Gender, Climate Change and Health*

⁷⁷ Eric Neumayer & Thomas Plümpner. (2007). *The Gendered Nature of Natural Disasters: The Impact of Catastrophic Events on the Gender Gap in Life Expectancy, 1981–2002. Annals of the Association of American Geographers, 97:3, 551-566, DOI: 10.1111/j.1467-8306.2007.00563.x*



Insights from the Field

Women household heads can experience greater levels of stress after natural disasters due to their roles as caregivers and main providers. Female heads of households who participated in the focus groups were more likely to mention the difficulty of hurricane and flood recovery than single and young women.



'I have four teenagers, I am the mother, the father, I am the main source of income. I lost my business, my home. I had to make a decision to send my children with family members because we didn't have anywhere to live. It was very difficult to send my children away'. — FGD participant, Dominica

'I am mammy, daddy, no help. I have 2 kids, of 4 and 11 years old, their father doesn't help so it's all on me. Luckily my apartment didn't get damaged, but it was really hard. I lost my business and I had to work from home, since I am not at [sic] town it was hard because after Maria it was everything blocked and it was difficult for the customers to come all the way to me instead of town'. — FGD participant, Dominica

Anecdotally, women are more inclined to access health services than men, and they are more willing to take precautions when there is a health risk.

Experts from the Caribbean Public Health Agency (CARPHA) and focus group participants noted that women are perceived to be more inclined to seek healthcare solutions for themselves and the family.



'Household behaviour of men and women, women are much more inclined to access health care services than men so hopefully they will be more willing to get information... If they become ill or if they know about Zika they will be more inclined to take precautions'. — Laura Boodram, Head of Vector-Borne Diseases, CARPHA

5. Natural Disasters and Disaster Risk Management



Women and men are affected by climate disasters differently due to their different vulnerabilities and capacities to deal with climate change. Gender-related restrictions, such as limited physical mobility, care work burden, and lack of resources and assets constrain women's capacity to respond to climate disasters. For instance, women have lower participation in the paid labour force, higher participation in the informal sector, and lower incomes, which increases their vulnerability to disaster-related risks.⁷⁸ Men are also affected by climate disasters in different ways. In agriculture, due to the role that men have of caring for and protecting the livestock, they tend to stay on the farm to protect the animals instead of moving to a secure shelter with other family members, increasing their vulnerability and exposure to life-threatening situations.⁷⁹

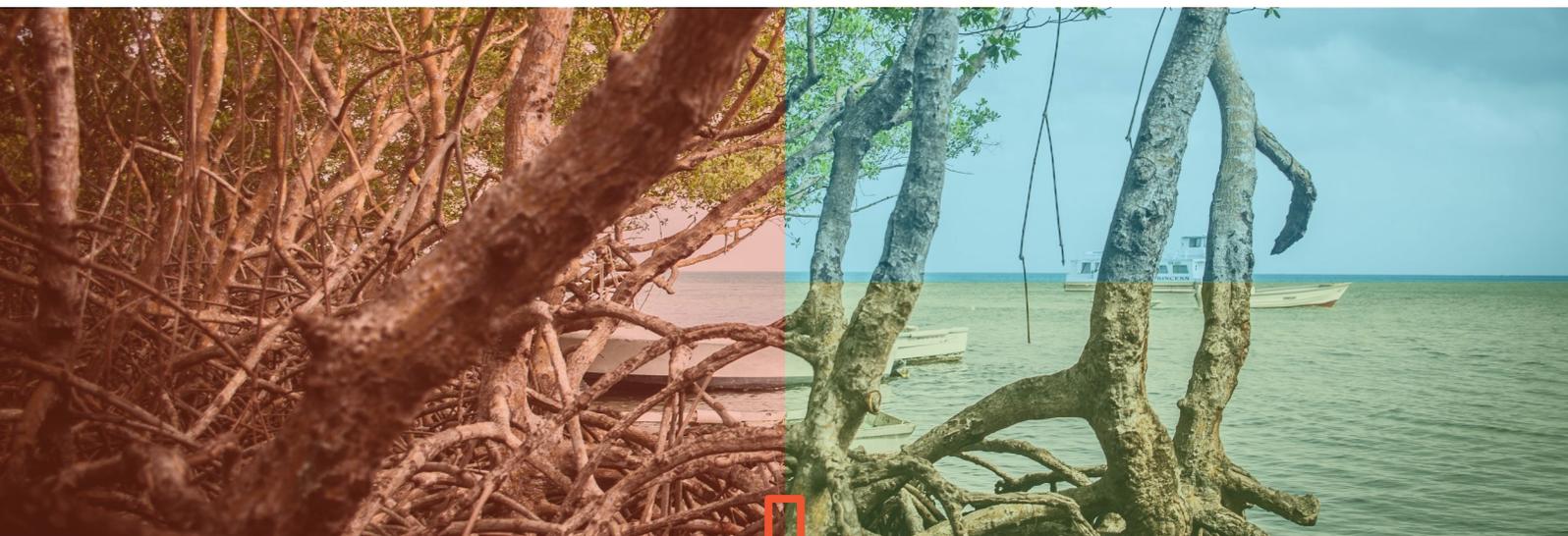
Poor, rural women and heads of household have few assets for post-disaster recovery. Female-headed households who do not have land titles may not benefit from disaster-recovery housing grants and programmes. These women may not have land titles because they live on family land that was never formally passed on to them. Women farmers who lose their crops or livestock may also not have the agricultural inputs, assets, or knowledge to recover their losses. After Hurricane Maria, 75% of women farmers interviewed by the Government of Dominica reported they were significantly impacted by a loss of tools and crops, and the lack of animal feeds, water, and shelter was leading to increased losses daily.⁸⁰ In 2017, after Hurricane Mathew struck Haiti, a household survey from the Igarape Institute found that 67% of respondents were made homeless or forced to use temporary housing and that women were significantly more likely than men to have reported ongoing displacement. A follow-up survey four months later found that 45.2% of male respondents reported living in permanent housing while only 35.8% of female respondents reported living in an apartment or house.⁸¹

⁷⁸ Dunn, L. 2009. *Enhancing Gender Visibility in Disaster Risk Management and Climate Change in the Caribbean: Country Assessment Report for the Dominican Republic*. Barbados UNDP and Caribbean Risk Management Initiative. <http://www.undp.org/cu/crmi/docs/crmi-gtjfcnarpdominicana-bp-2009-en.pdf>

⁷⁹ Dunn, L. ed. (2013) *Gender, Climate Change and Disaster Risk Management*. Institute of Gender and Development Studies Mona Unit, The University of the West Indies and the Friedrich Ebert Stiftung. Available at: <http://library.fes.de/pdf-files/bueros/fescaribe/10711.pdf>

⁸⁰ Government of the Commonwealth of Dominica (2017). *Post-Disaster Needs Assessment Hurricane Maria*. September 18, 2017. Available at: https://www.gfdr.org/sites/default/files/publication/Dominica_mp_012418_web.pdf

⁸¹ Kolbe et al (2017). *Haitian Women's Experiences of Recovery from Hurricane Mathew*. Igarape Institute. June 2017. https://reliefweb.int/sites/reliefweb.int/files/resources/NE-26_Haitian-Hurricane-05-06.pdf



Gender differences also impact the effectiveness of Early Warning Systems (EWSs) and other disaster prevention interventions.

Women's life expectancy declines more than men's after natural disasters due to how their unequal socioeconomic status and lack of rights and resources impact their ability to cope.⁸² However, treating women merely as victims exacerbates their vulnerability and denies their vital roles in reshaping climate change policies and disaster risk reduction.⁸³ A review of EWSs in the Caribbean found that while the literature pointed to gender gaps in the way men and women respond to disasters, there was insufficient knowledge amongst practitioners leading EWS in the region on how to incorporate gender concerns in their programmes. The review also found that there is a lack of use of social vulnerability data to address the capacity of vulnerable groups to undertake EWSs.⁸⁴

Women do most of the unpaid care work in shelters.

The trend of women to do most of the unpaid care work for children, seniors, and the sick is replicated in disaster recovery shelters and camps. For example, in Dominica, observational evidence suggests that there was a predominance of women, elderly persons, and children in the Hurricane Maria recovery shelters and that elderly women were doing the majority of the care work. Most of these elderly women who were interviewed by the Government of Dominica indicated that they were spending at least 18 hours per week on unpaid care work, a significant increase from how much time they spent before Hurricane Maria.⁸⁵

⁸² Eric Neumayer & Thomas Plümper (2007) *The Gendered Nature of Natural Disasters: The Impact of Catastrophic Events on the Gender Gap in Life Expectancy, 1981–2002*, *Annals of the Association of American Geographers*, 97:3, 551–566, DOI: 10.1111/j.1467-8306.2007.00563.x

⁸³ Dugarova, E. (2018). *Gender Equality as an Accelerator for Achieving Sustainable Development Goals*. Discussion Paper. UNDP

⁸⁴ World Meteorological Organisation (2018) *Caribbean 2017 Hurricane Season, an Evidence-based Assessment of the Early Warning System*. World Meteorological Organisation. Geneva. Available at: https://www.itu.int/en/ITU-D/Emergency-Telecommunications/Documents/2019/GET_2019/Caribbean-Report-WMO-CREWS.pdf

⁸⁵ Government of the Commonwealth of Dominica (2017). *Post-Disaster Needs Assessment Hurricane Maria*. September 18, 2017. Available at: https://www.gfdr.org/sites/default/files/publication/Dominica_mp_012418_web.pdf

Natural disasters can lead to increased violence against women and girls. According to a study by the International Federation of the Red Cross,⁸⁶ domestic violence and sexual violence increase following disasters. Other findings include increased GBV due to displacement, increase in the prevalence of transactional sex as a result of impoverishment, increase in child marriage and trafficking, and the fact that under-reporting causes these issues to go unnoticed and undocumented. Additionally, another study found that disruption of regular routines and livelihood patterns in conjunction with overcrowding conditions can contribute to anger, frustration, and violence, with children and women being the most vulnerable. That same study pointed out that adolescent girls reported high levels of sexual harassment and abuse in the aftermath of disasters and complained about the lack of privacy in emergency shelters.⁸⁷

Figure 11: Gendered impacts of climate change on disaster risk management

Climate change Impact on disaster risk management	Gendered Impacts
<p>Displacement / Loss of homes</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Vulnerable, rural women may not have access to climate-related information, which in turn will impact their ability to cope with natural disasters.** <input type="checkbox"/> Increased violence against women and girls in shelters or who have been relocated or displaced.
<p>Disaster-linked deaths</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Lack of access to assets limits available coping mechanisms to deal with the impacts of drought, disproportionately affecting women.*
<p>Post-traumatic stress disorder</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Psychological stress is likely to be heightened after disasters, particularly where families are displaced and have to live in emergency or transitional housing. Women and men experience and deal with these traumatic events differently.*
<p>Crop failure / destruction of economic assets</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Women's mobility constraints are exacerbated by extreme events and in turn hinder or further exacerbate their inability to cope.*

Evidence base:
 *Backed by anecdotal, practitioner reports, or small, sample-sized studies of evidence in the Caribbean.
 **Backed by anecdotal evidence in the Caribbean and global practitioner studies.
 ***Backed by anecdotal data, practitioner studies, and data or empirical evidence.

⁸⁶ International Federation of the Red Cross (2015) *Unseen, unheard: Gender-based violence in disasters* [Online]. International Federation of Red Cross and Red Crescent Societies, Geneva, 2015. Available at: https://www.ifrc.org/Global/Documents/Secretariat/201511/1297700_GBV_in_Disasters_EN_LR2.pdf
⁸⁷ Bartlett, S. (2008) 'Climate change and urban children: impacts and implications for adaptation in low- and middle- income countries' *Environment & Urbanization*, Vol 20(2): 501-519. [Online]. International Institute for Environment and Development (IIED). Available at: <http://journals.sagepub.com/doi/pdf/10.1177/0956247808096125>



Insights from the Field

Shelters and displacement camps may not have adequate infrastructure to house both men and women.

Key informants noted that hurricane shelters take in both men and women and do not have adequate facilities, such as separate bathroom facilities or sleeping areas for each gender and for families. Many women-headed households who have lost their homes may also have to stay in temporary housing and shelters longer since their lack of land or housing titles means they may not be able to access disaster recovery housing support. Women's landlords may prioritise their own needs above rebuilding efforts for their tenants. Finally, women who have suffered from domestic violence in the past may have nowhere to go if the few shelters for women survivors of violence are destroyed in a natural disaster.



'Gender based violence impacts development overall, and there is a higher risk when you are talking about climate change disasters. If you get into shelter you need to think of planning, so you don't create another disaster'. — Leith Dunn, Head of the Institute for Gender and Development Studies, UWI

'We have to be careful when we talk about shelters. People's homes are designated as shelters. After Hurricane Maria, the shelters were not specialised buildings but schools that were already lacking in infrastructure and not adequate as shelters. They lacked separate bathrooms for men and women. Men, women and children also had to sleep in the same room [...]' — Nigel Lawrence, Treasurer, Dominica National Council of Women

Disaster preparation and recovery efforts and grant mechanisms may not reach informal women entrepreneurs or vulnerable women.

All of the women entrepreneurs who participated in the focus groups noted that post-Hurricane Maria, small business grants from the government of Dominica were only made available for registered businesses so informal, non-registered businesses were not able to access the funds. Hence, in disaster recovery efforts, women entrepreneurs operating in the informal economy, particularly microentrepreneurs running small service businesses like hairdressers or market stall vendors, are at a disadvantage.



'Even in terms of communication, not many women [in rural areas] are able to have the communication tool, such as ham radios, needed to access natural disasters or climate information. We are taking it for granted that we all have a radio or even newspapers'. — Ophelia Linton, National Council for Women in Dominica

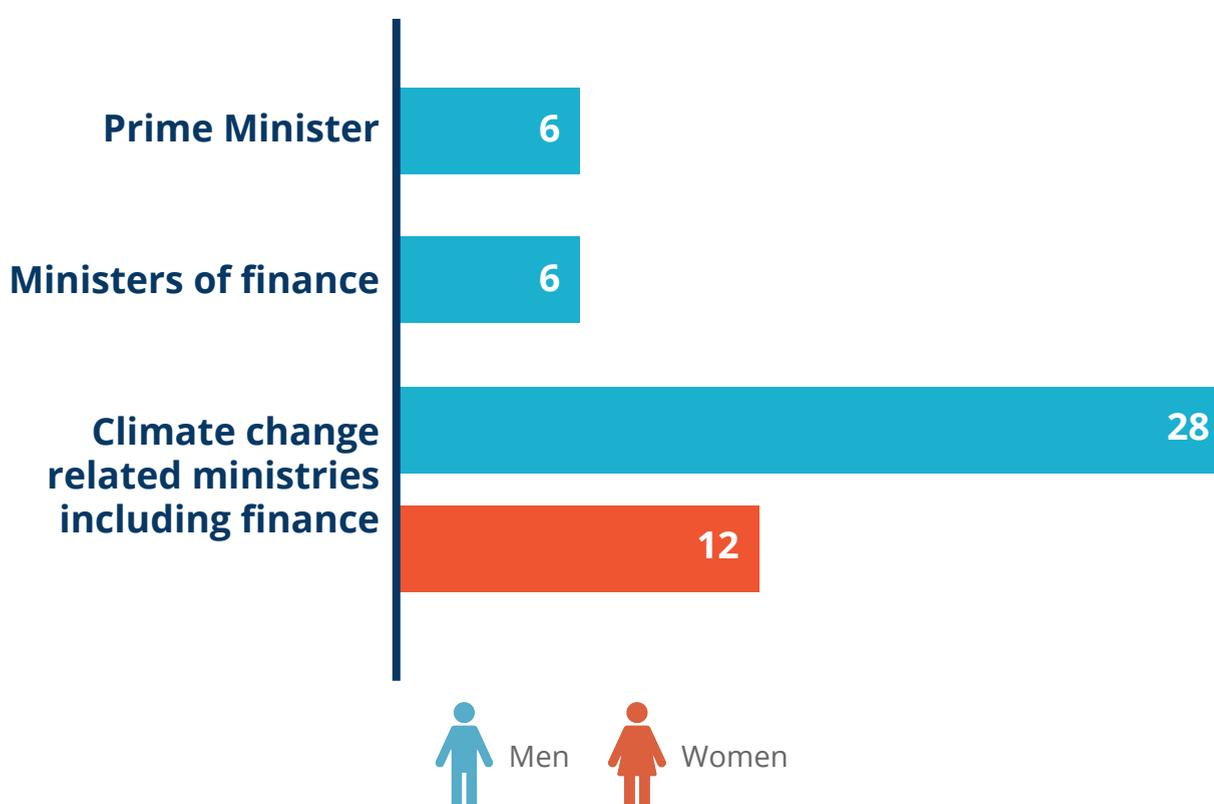
'After the storm, they did not prioritize small business people. Funds were allocated to big businesses and most of them have insurance, they can afford it because they are big companies. Funds were not allocated for small businesses, so it was harder for them to sustain themselves. Small businesses are the engine of the community ... For women businesses were harder because we lost our businesses and we had to take care of our children, especially for single mothers...' — FGD participant, Dominica

Crosscutting Trends: Gender and Climate Resilience

1. Women are under-represented in the leadership of climate resilience efforts

Gender inequalities in the Caribbean hinder women's potential from being agents of climate resilience. In the Caribbean, gender parity has been reached in government and middle management, but women are under-represented in senior leadership positions of public and private sector organisations linked to climate resilience. An analysis by the assessment team of climate change-related ministries⁸⁸ in PPCR countries found that only 29% of these ministries were led by women, and all prime ministers were men (see Figure 11).

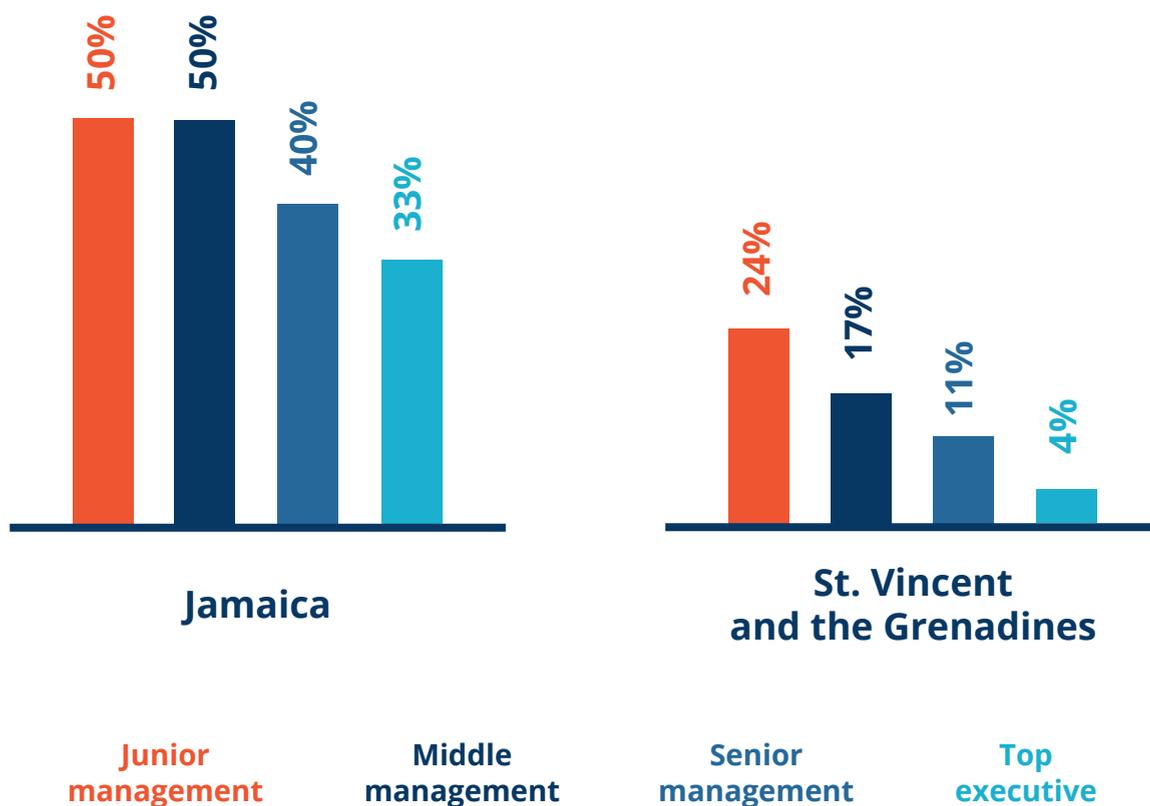
Figure 12: Women Ministries Leading Climate Change-Related Ministries in PPCR Countries



⁸⁸ Ministries analysed in the 6 Caribbean PPCR countries included: Agriculture, Commerce, Fisheries, Economy, Housing, Land, Public Works, Water Management, Tourism, and Trade.

Women in the Caribbean region are also under-represented in the senior leadership of private sector organisations (see Figure 13). While women in the Caribbean have made great strides in joining the labour force and in many cases reached equality in the private sector middle management roles, they continue to be under-represented in top leadership levels. A 2017 ILO study of 675 companies in 13 Caribbean territories found that while women made up 30% of managers at junior, middle, and senior levels, they only held 10% of top executive roles and 18% of board chairs.⁸⁹

Figure 13: Women in management positions in selected countries⁹⁰



⁸⁹ ILO (2018). *Women in business and management: Gaining momentum in the Caribbean*

⁹⁰ ILO (2018). *Women in business and management: Gaining momentum in the Caribbean*

2. Poor and vulnerable women are heavily at risk from climate shocks

Poverty in the PPCR countries tends to be concentrated in female-headed households. These households are led by women who are the main income earners, and they tend to be poorer and more vulnerable to economic and climate shocks. Women tend to have higher unemployment rates and lower incomes than men.⁹¹ Female-headed households represent a significant portion of households in PPCR countries, representing 41% in Grenada, 52% in Saint Vincent and the Grenadines, and 40% in Haiti.⁹² In Saint Lucia, being a female-headed household is related to substandard housing, weak social capital, and a home located in a disaster-prone area.⁹³

3. Gender gaps in financial inclusion can lead to vulnerabilities to climate shocks

Gender gaps in access to financial services have closed in Jamaica but remain in Haiti. In Jamaica, 79% of men and 78% of women have an account at a formal financial institution compared to 35% of men and 30% of women in Haiti.⁹⁴ Financial inclusion data for other Caribbean countries is limited because the World Bank's Financial Inclusion Index (Findex) survey has not been implemented in Dominica, Grenada, Saint Lucia, and Saint Vincent and the Grenadines.

Gender gaps in the use of financial services and income lead to vulnerabilities to climate change. While in Jamaica fewer women save at a financial institution than men (27% compared to 32% respectively), the gap is reversed with 13% of women saving at a financial institution compared to 11% of men. However, financial inclusion surveys in other LAC countries show that women tend to have less income to save than men. Additionally, women are vulnerable to climate shocks and natural disasters since only 54% of women in Jamaica and 46% in Haiti note that in the case of an emergency, they have funds to cover expenses,⁹⁵ which makes them more vulnerable to climate change. However, in the case of Haiti, there is no gender gap between men and women who can cover expenses.⁹⁶

⁹¹ Rawwida Baksh and Associates (2016). *Country Gender Assessments (CGAs) Synthesis Report*. Caribbean Development Bank, Bridgetown.

⁹² *Country Gender Assessment (CGAs) Saint Lucia*. Caribbean Development Bank, Bridgetown; *Country Gender Assessment (CGAs) Saint Vincent and the Grenadines*. Caribbean Development Bank, Bridgetown; *Country Gender Assessment (CGAs) Grenada*. Caribbean Development Bank, Bridgetown.

⁹³ *Country Gender Assessment (CGAs) Saint Lucia*. Caribbean Development Bank, Bridgetown

⁹⁴ World Bank (2017). *The Global Findex Database*.

⁹⁵ Measured as respondents who report the ability come up with 1/20 of gross national income (GNI) per capita in local currency within the next month to cover an emergency. World Bank (2017). *The Global Findex Database*.

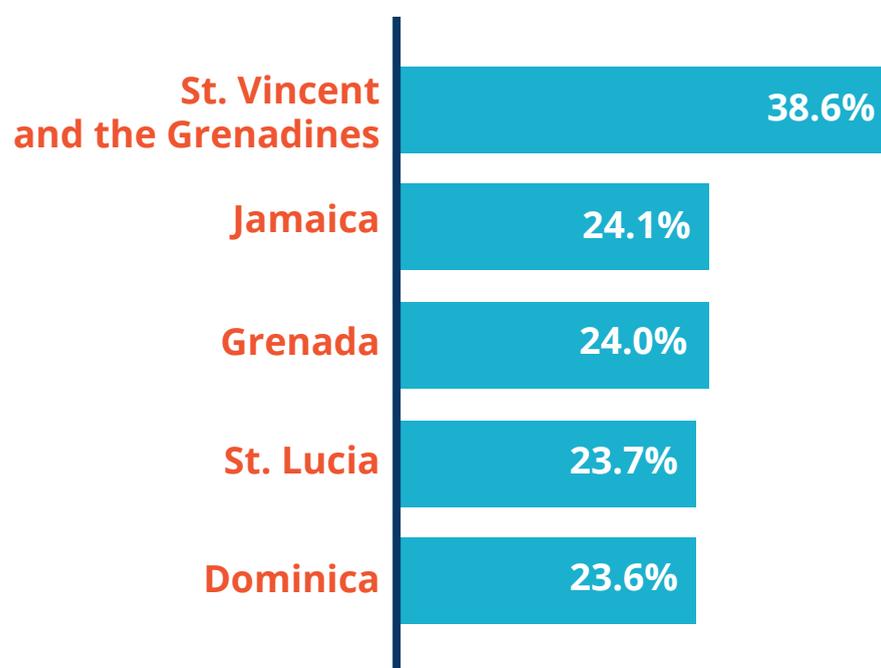
⁹⁶ World Bank (2017). *The Global Findex Database*.

4. Women-led businesses are smaller and have less access to training

Women in the Caribbean lead less than a third of SMEs. In fact, according to the World Bank's Enterprise Surveys, only in Saint Vincent and the Grenadines do women-led SMEs represent over a third of SMEs while in Dominica, Grenada, Saint Lucia, and Jamaica, it is less than 25%. On average, in the Caribbean as a whole, 24% of SMEs were led by women, compared to 20% of large enterprises. However, this includes the outlier of Saint Vincent and the Grenadines, where the share of women top managers at 5%. When excluding Saint Vincent and the Grenadines, the average share of large companies in the remaining Caribbean countries led by women decreases to 12%.⁹⁷

Women-led companies in the Caribbean have less access to training and technology than those led by men.⁹⁸ An IDB study found that women-led SMEs and firms with a higher presence of women in decision-making in the Caribbean tend to ask for less credit and take less part in training programmes.⁹⁹

Figure 14: Share of enterprises with at least one top female manager*¹⁰⁰



⁹⁷ ILO (2018). *Women in business and management: Gaining momentum in the Caribbean*.

⁹⁸ A more recent study by the IDB evaluated the productivity of women-led companies across 13 Caribbean countries. *Women-led businesses have less access to training and technology than those led by men*. InfoDev. (2015). http://www.infodev.org/sites/default/files/profiling_caribbean_women_entrepreneurs_i-03.pdf

⁹⁹ Crespi, et al. (2017) *Exploring Firm-Level Innovation and Productivity in Developing Countries: The Perspective of Caribbean Small States*. Inter-American Development Bank. February 2017. Available at: <http://dx.doi.org/10.18235/0000616>

¹⁰⁰ ILO (2018). *Women in business and management: Gaining momentum in the Caribbean*



Unless there is an enabling environment for women's entrepreneurship development it means that the capacity to survive climate change is going to be less. Think about the barriers that exist, we do not have child care, if I am running my business I will be juggling between child care, running my business and everything else like lack of collateral to access financing. In inheritance there is an imbalance again that does not exist in the law but exists in practice as men inherit family land. — Dr. Leith Dunn, Head of the Institute for Gender and Development Studies, University of West Indies

5. Gender inequalities limit the potential of both young men and women

In the Caribbean, boys tend to be facing more challenges in obtaining an education than girls. In Dominica, Saint Lucia, Saint Vincent and the Grenadines, boys tend to repeat grades more often than girls or have higher dropout rates.¹⁰¹ However, while there is a prevailing belief, highlighted by some key informants, that in the Caribbean boys have higher dropout rates or worse educational outcomes than girls, the evidence is mixed. For example, in Dominica, in terms of the rate of male/female primary enrolment between 2006/07–2008/09, girls had a slightly higher enrolment than boys (51.29% to 48.51%), while between 2009/10–2011/12, boys showed a higher enrolment rate than girls (51.1% to 48.9%).¹⁰² In Grenada, during the period of 2006/07–2011/12, more girls were enrolled in secondary education than boys, but from 2011/12, the country achieved gender parity.¹⁰³

Even though girls tend to have higher rates of school enrolment than boys in the region, **young women tend to have higher unemployment rates than young men.** In 2018, 29% of young women in Jamaica were unemployed compared to 21% of young men. Even though this gender gap of approximately eight percentage points has decreased from approximately 17 percentage points in 2012, the remaining gap presents a significant obstacle for the economic opportunities of thousands of young women. Similar trends can be found in Haiti, Saint Lucia, Dominica, and Saint Vincent and the Grenadines.

¹⁰¹ Rawwida Baksh and Associates (2016). *Country Gender Assessments (CGAs) Synthesis Report*. Caribbean Development Bank, Bridgetown.

¹⁰² Rawwida Baksh and Associates (2016). *Country Gender Assessments (CGAs) Synthesis Report*. Caribbean Development Bank, Bridgetown.

¹⁰³ Rawwida Baksh and Associates (2016). *Country Gender Assessments (CGAs) Synthesis Report*. Caribbean Development Bank, Bridgetown.

6. Gender norms and toxic masculinity permeate different aspects of Caribbean society

Engrained gender biases continue to exacerbate gender inequalities throughout the Caribbean.¹⁰⁴ There are very few studies measuring the presence of gender biases in society or business in PPCR countries. However, the World Values Survey in Trinidad and Tobago and Haiti demonstrated that 27% and 39% of people respectively agreed that if jobs are scarce, more men should have access to jobs than women.¹⁰⁵ While more men than women held this view, 23% of women in Trinidad and Tobago and 13% in Haiti also agreed with this.¹⁰⁶ Hence, gender biases are held by both men and women alike.

Women's unpaid care, household, and agricultural work is under-valued.¹⁰⁷ As in many other regions of the world, women's unpaid care work in the home, their work in the informal economy and in agriculture is not quantified or taken into account in economic and social policy-making.¹⁰⁸ In fact, none of the Caribbean countries analysed for this assessment had implemented a time-use survey, a survey that, among other things, allows women's unpaid work to be quantified. The lack of time-use surveys in the Caribbean contrasts with the neighbouring Latin American region where the majority of countries have developed time-use surveys.

¹⁰⁴ Rawwida Baksh and Associates (2016). *Country Gender Assessments (CGAs) Synthesis Report*. Caribbean Development Bank, Bridgetown.

¹⁰⁵ Inglehart, R. et al. (2014). *World Values Survey: Round Six - Country-Pooled Datafile Version*: <http://www.worldvaluessurvey.org/WVSDocumentationWV6.jsp>. Madrid: JD Systems Institute.

¹⁰⁶ *Ibid.*

¹⁰⁷ Rawwida Baksh and Associates (2016). *Country Gender Assessments (CGAs) Synthesis Report*. Caribbean Development Bank, Bridgetown.

¹⁰⁸ Rawwida Baksh and Associates (2016). *Country Gender Assessments (CGAs) Synthesis Report*. Caribbean Development Bank, Bridgetown.



Gender and Climate Change In PPCR Priority Countries

The following section provides an overview of gender and climate resilience issues for each of the Caribbean PPCR countries. For country-specific profiles, please see Annex 1. Each PPCR country profile includes the following: i) Country Fact Sheet, ii) Gender and Climate Resilience Overview, and iii) Overview of Gender and Climate Resilience PPCR Priority Areas (where available).

Overview: Gender and Climate Change in PPCR Priority Countries

All PPCR countries have signed international commitments and frameworks to promote gender equality. These commitments include CEDAW, 1979; the Inter-American Convention on the Prevention, Punishment and Eradication of Violence Against Women (Convention of 'Belém do Pará') 1995; the Beijing Declaration and Platform for Action (1995); the Millennium Development Goals (2000); the Commonwealth Plan of Action for Gender Equality (2005-2015); the Inter-American Commission of Women at the Organisation of American States (OAS/CIM) Strategic Plan of Action (2011-2016); and the Quito Consensus (2007); and among Organisation of Eastern Caribbean States (OECS) member states, the Treaty of Basseterre (1981).¹⁰⁹

¹⁰⁹ Rawwida Baksh and Associates (2016). *Country Gender Assessments (CGAs) Synthesis Report*. Caribbean Development Bank, Bridgetown.



Four PPCR countries (Dominica, Haiti, Jamaica, and Grenada) have drafted a national gender policy with peripheral mentions to the intersection of gender and climate change issues (please see Figure 15). As of October 2019, Saint Lucia, and Saint Vincent and the Grenadines did not have a national gender policy.¹¹⁰ Additionally, the CDB has found that **agricultural** sectoral policies in Caribbean countries¹¹¹ also tend to lack a gender analysis, which needs to be included in national policies and plans related to agricultural diversification and expansion, and food security.

As part of the study, the assessment team analysed multiple climate policies and Climate Investment Fund (CIF) related strategy and programme documents for each of the six PPCR countries (please see Figure 16). The analysis found that some **PPCR countries have included gender considerations as part of their climate resilience and CIF-related policies, albeit mainly without providing specific gender objectives or programmes.** The six PPCR

countries have all mentioned gender in their climate change policies; however, the proposed actions vary in scope. None of the six countries has included gender as a part of the key objectives of their climate resilience programmes or strategies with the exception of Saint Vincent and the Grenadines, which has included the development of gender policies as part of their results matrix. Four of the six countries (Dominica, Grenada, Haiti, and Saint Vincent and the Grenadines) have recognised and described the differentiated impacts on women from climate change. In the case of Saint Lucia, there is a recognition for the need to gather more data to establish these gender and climate linkages, and the programme aims to become the source for such information. In the case of Jamaica, there is a reference to national gender inclusion policies but no clear linkage to climate change. Other countries have specific workstreams dedicated to designing gender-informed policies and are using gender as criteria for investments or are expecting to mainstream gender-sensitive approaches in design, implementation, and evaluations.

Additionally, a report by the World Meteorological Organisation¹¹² found that gender issues were not considered in the meteorological programmes in the Caribbean. While the report pointed out that women are joining the workforce of EWS offices gradually, there are no mentions of these offices working on specific gender issues or collecting sex-disaggregated data. The report points to under-staffing being an issue as well as a lack of coordination with national gender bureaus.

¹¹⁰ Rawwida Baksh and Associates (2016). *Country Gender Assessments (CGAs) Synthesis Report*. Caribbean Development Bank, Bridgetown.

¹¹¹ Rawwida Baksh and Associates (2016). *Country Gender Assessments (CGAs) Synthesis Report*. Caribbean Development Bank, Bridgetown.

¹¹² World Meteorological Organisation (2018) *Caribbean 2017 hurricane season, an evidence-based assessment of the early warning system* [Online]. World Meteorological Organisation. Geneva. Available at: https://www.itu.int/en/ITU-D/Emergency-Telecommunications/Documents/2019/GET_2019/Caribbean-Report-WMO-CREWS.pdf

Figure 15: Inclusion of Climate Change Objectives in National Gender Policies
(see Annex 2 for more detail)

Country	National Gender Policy	Does the policy include Climate Change-related key objective?
Dominica	National Policy and Action Plan for Gender Equity and Equality (2006, updated in 2014)	Y
Grenada	The Gender Equality Policy and Action Plan 2014-2024	Y
Haiti	National Policy for the Equality of Men and Women (2014-2034)	N
Jamaica	National Policy for Gender Equality (2011) National Development Plan — Gender Sectoral Plan (2009-2030)	Y
Saint Lucia	No (2017)	N
Saint Vincent and the Grenadines	No	N/A



Figure 16: Inclusion of Gender Objectives in National Climate Change Institutional Arrangement / Policies (see Annex 3 for more detail)¹¹³

Country	National Climate Change Institutional Arrangement / Policy	Does the policy include gender as a key objective?
Dominica	Low-Carbon Climate Resilient Development Strategy (2012-2020)	N
Dominica	Strategic Programme for Climate - Resilience (SPCR) 2012-2017	N
Grenada	Grenada SPCR, prepared for the PPCR in 2011.	N
Haiti	National Programme Action for Adaptation — Haiti (PANA) Plan Stratégique de Développement d'Haïti (PSDH) Nationally determined contributions (NDC)	N
Haiti	Climate Investment Funds Scaling-Up Renewable Energy Programme (SREP) SREP Investment Plan for Haiti	N
Jamaica	Jamaica SPCR Prepared for PPCR in 2011, revised in 2012	N
Saint Lucia	Saint Lucia's SPCR	N
Saint Vincent and the Grenadines	SPCR Saint Vincent and the Grenadines (2011)	N



¹¹³ Analysis based on data from: World Meteorological Organisation (2018) Caribbean 2017 hurricane season, an evidence- based assessment of the early warning system [Online]. World Meteorological Organisation. Geneva. Available at: https://www.itu.int/en/ITU-D/Emergency-Telecommunications/Documents/2019/GET_2019/Caribbean-Report-WMO- CREWS.pdf (pp.68-72)



Recommendations for Integrating Gender in the Policy and Practice of Climate Change Adaptation

This section provides overarching and specific recommendations for policy-makers and government and international organisation practitioners that are developing climate resilience projects, in particular PPCR-related activities. The recommendations are split into three subsections:

1. Gender Mainstreaming in Climate Resilience Projects: Key Recommendations

2. Gender Equality and Climate Resilience: A Framework for Action

3. Gender Mainstreaming in the PPCR: Operational Recommendations



1. Gender Mainstreaming in Climate Resilience Projects: Key Recommendations

Based on the assessment above, the assessment team has developed a set of overarching recommendations that are relevant for all climate resilience projects.



1. Commit to promoting gender equality within climate resilience projects

- **Make** a public, high-level commitment to promote gender equality to ensure accountability to internal and external stakeholders. Ideally, the commitment should be made by the minister, president, CEO, general manager, or minister of the respective entity.
- **Develop** a Gender Action Plan with specific targets and an allocation of human and financial resources.



2. Make women leading the way on climate resilience visible

- **Recognise** women leaders in public and private sector organisations working on climate resilience to serve as role -models for women in middle management.
- **Make** gender and climate resilience issues more visible through project documents, reports, and studies in order to show the importance of redressing gender inequalities in climate resilience projects.

In Focus: Commonwealth Foundation: Bringing the Gender and Climate Change Experts Together

In 2018, just under a year after the Caribbean was hit by hurricanes Irma and Maria, the Commonwealth Foundation, in partnership with the United Nations Development Programme's (UNDP's) Global Environmental Facility (GEF) and the Institute of Gender and Development Studies of the University of the West Indies (Mona, Jamaica), brought together 40 civil society leaders from all Caribbean Commonwealth countries in Barbados to discuss the issues at the intersection of gender and climate change. This forum and follow-up activities sought to bring together civil society leaders from both the gender and climate change space to identify advocacy pathways for climate change programming. Forums like these help bring a gender lens to climate change processes.



3. Give women a voice and engage them as agents of climate resilience

- **Engage** women through direct interventions that recognise their role as agents of change in agricultural, fisheries, and land management value chains.
- **Recognise** women in communities as leaders in climate resilience by developing specific interventions to ensure they are included in project decision-making and the design of the solutions and programmes that seek to benefit them.
- **Develop** capacity-building interventions that help women organise themselves or join wider decision-making instances that seek to change the main productive activities of the community (e.g. from fishing to tourism, smallholder to commercially sustainable agriculture).

Including Haitian Women as Users, Technicians, and in Project Decision-Making in Water Supply¹¹⁴

The IDB's water supply, sanitation, and hygiene project in urban, periurban, and rural areas in Haiti's Grand North Region is including women in project decision-making and jobs throughout the project cycle. During project consultations, women and women's associations were specifically included with the understanding that women play a pivotal role in water management in their communities. The project, which will expand water access, includes the following training programmes targeted at women: training in plumbing and electricity, access to microcredit to support women entrepreneurs who operate small businesses in condominal water networks, and train women in the operation and management of water and sanitation systems so they can better participate in decision-making in the project steering committees. Further, clauses will be written in the contracts for vendor companies to incentivise the contracting of women in technical and line staff positions. Finally, the project will track the impact of improved water supply on women users' time spent on fetching and carrying water.

¹¹⁴ For more information please see the <https://www.iadb.org/en/project/HA-L1135>



4. Think gender when communicating climate change messages and information

- **Understand** how men and women respond to communications messages and channels, and design messages that can apply to both.
- **Identify** the appropriate channels to reach vulnerable women or women who may not normally obtain CSA, meteorological data, and early warning system information through traditional channels.
- **Engage** women in the development and implementation of EWSs.¹¹⁵ Practitioners developing EWSs should explicitly consider gendered impacts on vulnerability, participation, dissemination, response, and power and decision-making.¹¹⁶

¹¹⁵ For more guidance on including gender in early warning systems please see the Practical Action policy brief *Gender- Transformative Early Warning Systems*.

¹¹⁶ Practical Action (2019). *Gender-Transformative Early Warning Systems*. Policy Brief. June 2019.

Thinking gender when communicating climate change data

Studies have found that women are slightly more likely than men to be concerned about the environment and have stronger pro-climate opinions.¹¹⁷ At the community level, women can be spokespeople for EWS information, climate information, and the implementation of climate-smart practices.

Some recommendations that projects can consider in this regard are outlined below:

Use inclusive and gender positive communication

- **A first step** involves making women more visible and recognizing this through language that disaggregates by sex. Example: the statement, 'This water harvesting project has impact on women and men farmers in Jamaica' ensures that women and men are equally visible and represented.
- **By representing** women and men in a full range of roles and positions, norms and stereotypes are challenged. This includes portraying women in positions of authority and power and showing both women and men in non-traditional roles. Example: images or text portraying a woman as a CEO or driving a tractor and men caring for children or performing household tasks.

Think about intersectionality

- **Consider** how gender intersects with class, race, ethnicity, ability, age, and other factors. It is important to represent women and men from all areas where activities take place. Example: represent a diversity of women and men of varying ethnicities and ages; include images of people with disabilities.

Think about the communication channel and messenger

- **During** the design of the intervention, women's groups can be tasked with identifying the ideal communication channels to reach women.
- **Women** can be engaged in the production of communication content, such as videos and brochures.

For more information, please see the Value for Women Gender and Communications Checklist.

¹¹⁷ Pearson, A. et al. (2017). *Race, class, gender and climate change communication*. Oxford Encyclopaedia of Climate Change Communication. 10.1093/acrefore/9780190228620.013.412.



5. Collect, analyse, and use sex-disaggregated data

- **Move** beyond counting beneficiaries and use the sex-disaggregated data by undergoing a gender analysis to obtain insights into the differentiated needs of men and women within a project.
- **Set** appropriate sex-disaggregated targets for project outcomes and avoid automatic 50% targets for women beneficiaries since these may be counter-productive in certain Caribbean contexts where women already outnumber men or when gender issues disproportionately negatively impact men.



6. Ensure gender-related elements in design carry on to implementation

- **Budget** for the successful implementation of gender-related activities by ensuring the necessary human and financial resources are available in design. Key informants noted that many times gender-related activities are included in design but not prioritised during implementation. Similarly, women's organisations noted that they have been consulted during design climate resilience programmes but are not included in the implementation.
- **Provide** incentives or opportunities for hiring local women, women technicians, and women-led businesses in project-related activities.



7. Engage and support women's organisations

- **Provide** financing for women's organisations to be involved in the design and implementation of climate resilience programmes. Women's organisations in the PPCR countries interviewed as part of this assessment were notably lacking resources and full-time staff even though they typically were the only organisation representing women at the national or local level.



2. Gender Equality and Climate Resilience: A Framework for Action

Based on the above assessment, a Framework for Action: Climate Resilience and Gender has been developed to support policy-makers and practitioners in the Caribbean region to prioritise interventions based on the type of women stakeholders and beneficiaries of the programme. This framework seeks to guide implementing agencies, practitioners and policy-makers when designing and implementing climate resilience programming in order to help them prioritise the type of gender-smart solutions that are most relevant to them. The Framework (Figure 17) includes two axes:

i) Gender-smart climate resilience solutions, interventions that seek to redress gender inequalities and promote climate resilience, organised around women's ability to have a voice and build knowledge, finance and assets;

ii) Categories of women beneficiaries or potential beneficiaries of climate resilience interventions. These groups include employed women (wage workers) who can be located in both urban and rural areas but mainly located in urban areas;

women entrepreneurs who are mainly located in urban areas except in Haiti where women traders, known as Madame Saras, are an important part of the agriculture value chain; rural women, mainly producers and fisherfolk, who perform a variety of activities across the agricultural value chain, including unpaid work in their own smallholder farms; poor and vulnerable women who are mainly located in rural areas and tend to be the main or only income earner in the household; and young women who are studying, just entering the labour force or are unemployed.

Finally, the framework notes the suggested level of priority¹¹⁸ each type of population should receive when designing gender-smart solutions for climate resilience projects:

- (***) **Priority** population for the design / implementation of climate resilience intervention;
- (**) **Important** population for the design / implementation of climate resilience intervention;
- (*) **Population** should be considered for the design / implementation of climate resilience intervention.

Figure 17: Climate Resilience and Gender Equality: A Framework for Action

Beneficiary Group	Gender-Smart Interventions for Climate Resilience Projects						
	Voice	Knowledge		Finance	Assets		
	Include Women in Decision-Making	Gender-Sensitive Climate-Communication	Engage Women in EWS/ Disaster Risk Planning	Targeted Technical Assistance	Gender-Smart Financial Solutions	Insurance Solutions for Women	Incentivise Women's Land Titling
Employed Women	●	●	●	●	●	●	●
Women Entrepreneurs	●	●	●	●	●	●	●
Rural Women, Producers, and Fisherfolk	●	●	●	●	●	●	●
Poor and Vulnerable Women	●	●	●	●	●	●	●
Young Women	●	●	●	●	●	●	●
Women's and Gender Organisations and Institutions							

¹¹⁸ The assessment team employed the following criteria for the prioritisation of each group: i) vulnerability to climate shocks; ii) opportunity for the group to promote climate resilience in their community; iii) relevance of intervention for the target group.



1. Incentivise Participation in Decision-Making

Currently, programmes like the PPCR include sex-disaggregated indicators that track the number of beneficiaries, but rarely track women's participation in decision-making. These types of indicators do not do much to resolve gender inequalities in the Caribbean since it does not account for including relevant women stakeholders in decision-making. There are three types of women's groups and stakeholders that policy-makers, donors, and practitioners should seek to include in climate resilience project decision-making: local and national women's organisations, women scientists, technical staff and middle managers; gender bureaus, and women's ministries.

Figure 18: How should different women and women’s organisation stakeholders be included in climate resilience programme decision-making?

Key Stakeholders	Why?	How?	
		Executing Agencies/ Practitioners / Ministries	High- Level Policy-Makers / Donors
<p>Women Producers / Rural Women / Women Fisherfolk</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Due to land ownership requirements or cultural norms women are left out the board membership of cooperatives and community water boards Since women do not normally own boats or do the fishing, they are excluded from fishing cooperative boards but are involved in other parts of the fishing value chain Cooperative and producer groups are a key entry point for climate resilience interventions 	<ul style="list-style-type: none"> <input type="checkbox"/> Explicitly ask for women to be involved in decision-making meetings <input type="checkbox"/> Consider requiring changes in producer group or cooperative bylaws, such as land ownership requirements, that limit women’s participation <input type="checkbox"/> Set aside spaces to consult women’s groups or women within cooperatives in projects in addition to including them in decision-making meetings 	<ul style="list-style-type: none"> <input type="checkbox"/> Set targets for women’s participation in cooperatives, water boards or producer groups that are proportional to women’s participation in productive activities in these value chains. <input type="checkbox"/> Provide financial incentives for executing agencies that meet the targets in the form of additional grants or budget amounts.
<p>Local and National Women’s Organisations</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Represent the voices of women, particularly vulnerable women and female heads of households, in at- risk communities and regions in Caribbean countries who are under-represented in climate <input type="checkbox"/> Are able to support data collection and dissemination efforts that reach traditionally excluded women 	<ul style="list-style-type: none"> <input type="checkbox"/> Engage women’s organisations to lead consultations or research with women <input type="checkbox"/> Create mechanisms of project accountability led by women or women’s organisations to verify the effectiveness of project programmes 	<ul style="list-style-type: none"> <input type="checkbox"/> Create specific mandates requiring the participation of women’s organisations in design and implementation. <input type="checkbox"/> Include additional budget support for women’s organisations in project implementation to ensure women’s organisations are part of the solution



Key Stakeholders	Why?	How?	
		Executing Agencies/ Practitioners / Ministries	High- Level Policy- Makers / Donors
<p>Women Scientists, Technical Staff, and Middle Managers</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Women are well represented in these roles in climate resilience projects, but they may not have a say in key features of project design <input type="checkbox"/> A minority of ministers leading climate change initiatives in the Caribbean are women 	<ul style="list-style-type: none"> <input type="checkbox"/> As part of climate capacity building programmes include leadership trainings for women in middle management 	<ul style="list-style-type: none"> <input type="checkbox"/> Set targets for the inclusion of women in the leadership of climate resilience related organisations and ministries
<p>Gender Bureaus or Women's Ministries</p>	<ul style="list-style-type: none"> <input type="checkbox"/> These institutions are responsible for mainstreaming gender into government policies but are not always at the table when climate resilience programmes are being developed 	<ul style="list-style-type: none"> <input type="checkbox"/> Meet with gender bureaus and identify synergies between gender and climate programmes 	<ul style="list-style-type: none"> <input type="checkbox"/> Include gender bureaus from the initial design stages of climate resilience programmes Align climate resilience projects with national gender policies and international gender commitments



2. Climate Change Awareness: Incorporate gender into the development and analysis of climate-related Information

An important development in the promotion of gender equality is the emphasis on the collection, use and dissemination of sex-disaggregated data. This includes the use of 'big data', extremely large data sets that may be analysed computationally to reveal patterns, trends, and associations. Similarly, geospatial and meteorological data is being used for a series of climate resilience efforts and EWSs. Climate adaptation methods have come to rely on Geographic Information Systems (GIS), and the amount of high-quality geospatial data that has become available in recent years has increased significantly. The use of this data can help the following: i) satellite imagery can capture regular changes in biophysical and environmental phenomena; ii) human infrastructure and patterns (light intensity, roads); and iii) social outcomes and patterns (e.g. health and nutrition, education outcomes and presence of schools, literacy).

- **Apply a gender lens to climate data systems and maps.** In the case of climate change resilience projects like those strengthening the capacity of meteorological systems in the Caribbean region and the dissemination of the data provided by these, there is an opportunity to combine this data with a community participative approach that develops climate vulnerability maps that are overlaid with maps outlining data from household surveys noting the presence of female-headed households, gender gaps in employment, and gender gaps in financial and physical assets.
- **Include a gender analysis when analysing data on climate data use.** Practitioners should seek to understand gender differences in how men and women respond to communications messages and how specific communication channels may be disproportionately unable to reach vulnerable women.
- **Develop meteorological and climate information dissemination strategies with the specific goal of being able to reach more women** or ensuring information reaches women and men equally. This can be done by improving content so that it is more visually appealing and easy to understand language by the general population and at-risk groups like low-income women. Additionally, practitioners must identify the most relevant channels (e.g. radio, community volunteers) to reach poor and rural women who may not have access to cable television or adequate social and support networks.

3. Incorporate Gender into EWS and Climate Risk Dissemination

Since gender roles determine how men and women react and cope with climate disasters, products and services aimed at mitigating the risk should be tailored to their gender-specific needs. Differences in gender roles, expectations, norms and responsibilities affect the capacity of women, men, girls, and boys to respond to early warning systems. These differences impact risk perception and responses of communities, families, and individuals.¹¹⁹

Not only do women and men acquire and act on natural disaster risk information differently but the livelihoods of vulnerable women are at a higher risk of being negatively impacted by natural disasters, so it is recommended that policy-makers and practitioners:

- **Identify the appropriate channels to reach vulnerable women or women who are not receiving regular meteorological data and EWS information through traditional channels.** For example, focus group participants in Dominica noted their main and most trusted source for Hurricane Maria information was the Weather Channel from the United States, which was available to those with cable or satellite television, but poor and vulnerable women may not have these services and would be at a disadvantage.
- **Women and women's organisations can be engaged as agents in the development and use of early-warning systems for climate shocks.** While some governments in the Caribbean region have included women's organisations in the Caribbean for EWS consultations, anecdotal information from key informants notes that these engagements have tended to be one off, and women's organisations have not been considered as key actors within EWS plans. For example, projects can create women's committees that hire local women to spread EWS-related information. Further, women tend to be more receptive to health-related messaging around vector-borne diseases so they can become agents of change in their communities and promote safe practices.
- **Women can be trained in the collection and response of big data necessary for early warning systems, be compensated for these efforts, and work out of their homes.** These efforts can build on international development experiences where women and youth are trained in monitoring and data collection efforts using mobile phones. The impact of the interventions is two-fold: women gain valuable skills, and early-warning systems are better informed by those most likely to benefit from those that are disproportionately impacted by these disasters.

¹¹⁹ World Meteorological Organisation (2018) Caribbean 2017 hurricane season, an evidence-based assessment of the early warning system [Online]. World Meteorological Organisation. Geneva. Available at: https://www.itu.int/en/ITU-D/Emergency-Telecommunications/Documents/2019/GET_2019/Caribbean-Report-WMO-CREWS.pdf (p.66-67)

4. Targeted technical assistance and capacity building

Since rural women and female-headed households in the Caribbean are some of the most vulnerable populations to climate impacts and targeted interventions through agriculture programmes can significantly increase their resilience to climate change. These gender-smart agricultural solutions are:

- **Targeted CSA advisory services and capacity building for women.** Develop specific projects or targeted interventions within wider projects for women in order to provide them with CSA technologies, inputs and practices, such as climate-resilient varieties for adaptation, sustainable soil, and water management. While the whole project does not need to be
- **Set targets and assign financial resources for women's participation in agriculture, water, and natural resource management technical assistance.** These targets seek to explicitly help overcome women's lack of participation in these activities if they are not part of cooperatives or producer groups given explicit or implicit membership restrictions (e.g. ownership may be a requirement to be a member of cooperatives).
- **Ensure that the programme addresses barriers faced by women in accessing technical assistance** and capacity building initiatives by ensuring these interventions are developed at a place, time and location that facilitates women's participation.

- **Engage women entrepreneurs as distributors of climate-smart solutions such as upgraded water management and RWH systems.** This helps to provide women with new skills and income opportunities while allowing service providers to diversify their workforce composition. Further, in countries like Haiti, improved water technology can ease the access to water such as solar power irrigation pumps to extract water can help women to reduce the time spent on collecting water.



'We worked on an integrated pest management support programme where we were trying to get farmers to use alternatives to pesticides and we would go into the communities and interview the households of the farmers and that would include the women involved on the farm or who was doing the marketing or was harvesting. We were asked to look at the role of women and, at first, I did not know why we had to do this. Now I understand more about how the messaging needs to be different because women and men think differently [...] because the message resonates differently for them and you have to think about how to better target and message the women [...] but most of the time you are talking to a mixed audience so you can't tailor delivery for one sex so you have to make a message that resonates with both'. — Dionne Clarke Harris, [Caribbean Agriculture Research & Development Institute (CARDI)]

5. Developing gender-smart financial solutions to improve climate resilience

There are a variety of financial solutions that can help different types of women build climate resilience in their homes, businesses and communities. These financial solutions include savings, credit and insurance that help women to diversify their economic activities, buy inputs for climate-smart agriculture, and provide a safety net during climate-related shocks.

Credit and Savings

Improving access to credit and savings accounts targeting women, who tend to have less access to formal financial services in the Caribbean, can help climate resilience efforts by: i) supporting women to smooth consumption in their households during climate shocks (e.g. droughts, floods, natural disasters); ii) facilitating investment in women's businesses, farms, or assets like lands or homes, including home improvement to cope with the impacts of climate change; and iii) providing a channel for post-disaster financial support from governments, financial institutions or international organisations. Hence, climate resilience projects should consider:

- **Engaging** financial institutions in order to develop targeted credit for women-led businesses and women farmers
- **Engaging** financial institutions and/or digital financial service providers to create strategies to provide banking accounts for hard to reach and vulnerable women as part of disaster risk mitigation plans and CSA and fisheries activities
- **Providing** financing to support women entrepreneurs in becoming distributors of climate-smart products (e.g. solar chargers and panels; biodigesters)

Climate Risk Insurance

Climate-risk microinsurance interventions targeting low-income, rural populations and linked to climate indices have gained prominence in the last decade. The main benefit is that when a climate shock like droughts or heavy rains takes place, producers do not have to prove their losses but rather when the system hits certain indicators (e.g. rainfall below certain levels) farmers are paid.¹²⁰ Further, producers that do not have the money to pay premiums can pay through climate resilience-related labour or initiatives. Further, the microinsurance programmes that have reached scale are those that have worked through existing microfinance institutions (MFIs) or farmer cooperatives, providing an opportunity for women's engagement on two fronts.

Gender-sensitive climate risk insurance (CRI) can play a role in adaptation as part of a risk management strategy. Some CRI offers certain coverage or services according to women's behaviours and needs such as family cover (as women care more for the entire family), bundled coverage on the back of a savings plan (as women tend to be better savers than men), or group coverage (as women tend to be more engaged in mutual assistance).¹²¹

6. Incentivise or develop initiatives to improve women's land and house land titling

Women's lack of land and home ownership is one of the most salient gender inequalities preventing climate resilience. Without these assets, women are limited in their access to finance to grow their businesses or their farms and are left out decision-making instances like farming or fishing cooperatives. Further, natural disaster recovery programmes require titling in order for beneficiaries to receive housing or farming reconstruction grants.

Practitioners and policy-makers can enhance women's access to land and house land titling by:

- **Ensuring** legal and regulatory instruments, improving women's access to productive resources, including the right and access to land titles and capital.
- **Designing** financing products and services to reduce specific barriers women-led agri-businesses face. Loans requirements such as collateral should be revised and complemented by crop insurances to protect against unpredictable weather events.¹²²

¹²⁰ Lascher, Bill. *Could micro-insurance help the poorest communities deal with climate change?* *The Guardian*. November 8, 2017. Online. Can be found at: <https://amp.theguardian.com/sustainable-business/micro-insurance-poorest-communities-climate-change>

¹²¹ Miles, K., Wiedmaier-Pfister, M. (2018) *Applying a Gender Lens to Climate Risk Finance and Insurance*. Resilience Global Partnership Secretariat. Available at: https://www.insuresilience.org/wp-content/uploads/2018/11/insuresilience_applygender_181128_web.pdf

¹²² Land Portal. (2019). *FAO addresses gender inequalities in Caribbean farming*. *Land Portal*. Viewed March 19, 2010. <https://landportal.org/news/2019/01/fao-addresses-gender-inequalities-caribbean-farming>



3. Gender Mainstreaming in the PPCR: Operational Recommendations

The recommendations in the two sections above are meant to provide general guidance climate resilience interventions, while the section below, outlines specific recommendations for the key components of the Caribbean Regional Track PPCR. Some regional PPCR components, such as agriculture and natural resource management that deal with direct beneficiaries will be more relevant for the inclusion of gender equality than those focused on building the capacity of organisations that are producing, analysing and disseminating climate data.

Figure 19: Caribbean Regional Track PPCR Components and Priority for Gender Mainstreaming

PPCR Regional Programme Component	Gender Mainstreaming Priority*
PPCR Component 1. Improving geospatial data and management for adaptation planning, sea-level rise, and storm surge impact analysis	
Activity 1: LIDAR data acquisition and processing for three selected highly vulnerable locations in Haiti (bathymetric only) and Jamaica (bathymetric and near-shore topographic).	
Activity 2: Processing of the data to create geospatial outputs for use by key national and regional repositories to support their ongoing climate analysis and adaptation planning.	
Activity 3: Capacity building for all six pilot countries in the use and value of LIDAR technology and products especially in development and sustainability planning.	
PPCR Component 2. Consolidating and expanding the regional climate network and global platform linkages	
Activity 1: Acquisition and installation of additional weather stations to improve the acquisition weather data across Caribbean PPCR countries.	
Activity 2: Development of priority climate products and services in Grenada, Jamaica, Saint Lucia, and Saint Vincent and the Grenadines.	
Activity 3: Capacity building of the national meteorological offices to deliver on their expanded role as national climate centres.	
Activity 4: Acquisition and installation of backup/fail-over systems for the secure storage of regional climate data.	

PPCR Component 1. Downscaling and expanded climate projection models and high-resolution maps

- Enhancement of the technological capacity and capabilities to analyse existing regional climate modelling outputs, as well as generating and assessing new model outputs. ●

- Development of a portal to enable ease of access to new downscaled analyses for expanding various climate dynamics, variability and change for regional climate models. ●

- Development of a framework for linking regional climate models (tier 1) to sector models (tier 2) to support adaptation planning and decision-making in key sectors. ●

- Development of a Regional Coastal Zone Integrated Information Management System (RCIIMS), including the production of high-resolution climatic data for the coastal zone. ●

PPCR Component 4. Applied adaptation initiatives

Subcomponent 1. Health

- Activity 1.** Develop a health audit tool ●

- Activity 2.** Conduct audit of available climate and vector-borne diseases data ●

- Activity 3.** Survey and report on social, epidemiological, and clinical role of gender in the spread of climate influenced VBDS ●

- Activity 4.** Develop an early warning surveillance system integrating climate variability and vector-borne diseases ●

Subcomponent 2. Marine

Activity 1: Development and deployment of an Information and Communication Technology (ICT) early warning system to reduce climate variability and change-related risks on fisheries ●

Activity 2: Development of a fishery and environment database ●

Activity 3: Conduct and report on a regional fishery-related ecological and socio-economic impacts assessment ●

Subcomponent 3. Agriculture

Activity 1: Development and dissemination of climate change resilient agriculture production systems, including model simulations of climate change impacts on production systems and livelihoods ●

- a) Training in crop modelling (completed 2018)
- b) Crop Modelling (ongoing)
- c) Molecular Characterisation of drought resistance in sweet potato varieties (completion August 2019)

Activity 2: Agriculture infrastructure upgrades to enhance resilience of the region ●

- a) Seed bank — Bodles Jamaica (completed); seed batch dryers for three regional facilities (delivery July 2019)
- b) Gene Bank – St Vincent (expected completion Dec 2019)
- c) Weaning and Hardening facilities in 4 PPCR countries (expected completion Dec 2019); and (c) increased storage capacity for climate- resilient cultivars

Subcomponent 4. Water

Activity 1: The enhancement policy and capacity building for the implementation of RWH systems ●

Activity 2: RWH systems in three water-stressed communities rehabilitated/constructed ●

*Meaning of priority ranking:

High The activity targets direct beneficiaries (most agriculture and fisheries projects but not all) and addresses an area with significant -gender gaps identified in the PPCR Gender Assessment.

Medium The activity does not target direct beneficiaries but addresses an area of significant gender gaps identified in the PPCR Gender Assessment (training for technicians etc. --- leadership).

Low The activity does not target direct beneficiaries or address a significant gender gap identified in the PPCR Gender Assessment.

Annex 1: Country Profiles



Dominica

Fact Sheet

- **Income Group: Upper middle**¹²³
- **Population: 71,625 (2018)**¹²⁴
- **Co2 per capita: 1.9 CO2 METRIC TONS (2014)**
- **Human Development Index (HDI) Ranking (2018): 103/189**
- **Renewable energy consumption (% of total final energy consumption) 7.8%**
- **Forest area (% of total land area) 57.4%**
- **Agriculture, value added (% of GDP): 12.67**¹²⁵
 - **Employment in agriculture (% of total employment) (modelled ILO estimate): n/a**
 - **Employment in agriculture, female (% of female employment) (modelled ILO estimate): n/a**
 - **Employment in agriculture, male (% of male employment) (modelled ILO estimate): n/a**
- **Labour force participation rate (% ages 15 and older): n/a**
- **Employers, total (% of total employment) (modelled ILO estimate): n/a**
 - **Employers, female (% of female employment) (modelled ILO estimate): n/a**
 - **Employers, male (% of male employment) (modelled ILO estimate): n/a**

¹²³ Enterprise surveys

¹²⁴ World bank (2018a). World Bank Data.

¹²⁵ World Bank (2018a). World Bank Data.



- **Women with account at financial institution (% of female population ages 15 and older) 2017: n/a**
- **Coming up with emergency funds: possible (% age 15+): n/a**
- **Percentage of female graduates from STEM programmes in tertiary education, female (%): n/a**
- **Percentage of female graduates from STEM programmes in tertiary education, male (%): n/a**
- **Percentage of students in tertiary education enrolled in Engineering, Manufacturing and Construction programmes, female (%): n/a**
- **Percentage of students in tertiary education enrolled in Engineering, Manufacturing and Construction programmes, male (%): n/a**
- **Female professional and technical workers (% of total): n/a**
- **World Economic Forum (WEF) Gender Parity Index 2017 Ranking: n/a**
 - **Economic Participation and Opportunity Sub-Index: n/a**
- **Women, Business, and the Law Scores¹²⁶**
 - **Getting Paid:¹²⁷ 50/100**
 - **Starting a Job:¹²⁸ 25/100**
 - **Women ownership rights to property: yes**
 - **Women's rights to inherit assets from parents or spouses: yes**
- **Enterprise surveys**
 - **Per cent of firms with female participation in ownership: 41**
 - **Per cent of firms with majority female ownership: n/a**
 - **Per cent of firms with a female top manager: 23.6**

¹²⁶ World Bank (2018b). *Women, Business, and the Law: 2018*. Washington, DC: The World Bank. Available at: <http://wbl.worldbank.org/>

¹²⁷ In *Women, Business, and the Law*, the indicator "Getting a Job" assesses restrictions on women's ability to work, such as prohibitions on working at night or in certain occupations. This also covers laws on maternity, paternity and parental leave, retirement ages, equal remuneration for work of equal value and non-discrimination in the workplace. A score of less than 100 indicates at least one legal limitation on a woman's job prospects, earning potential, career growth or ability to balance work and family in the areas measured.

¹²⁸ In *Women, Business, and the Law*, the indicator "Starting a job" includes equal remuneration for work of equal value, anti sexual harassment legislation, and non-discrimination in the workplace. It examines personal income tax credits and deductions available to women relative to men and the provision of childcare and education services.

Dominica: Gender and Climate Resilience Overview

Dominica is an upper middle-income country, ranking 103/189 in the UNDP's Human Development Index. As far as the legal framework, Dominica has significant gaps in laws allowing equality in women getting paid and starting a job.

Chapter 1, Section 13 of the Constitution of Dominica prohibits discrimination on the basis of sex and guarantees equality and equal protection under the law. In June 2006, the Government of Dominica adopted the National Policy and Action Plan for Gender Equity and Equality in the Commonwealth of Dominica, spearheaded by the Women's Bureau which was subsequently renamed the Bureau of Gender Affairs (BGA).¹²⁹ In 2014, the BGA, with support from UN Women, undertook a national consultative policy review process, which resulted in the Updated National Gender Policy and Action Plan 2014-2024.

The Government of Dominica has made gender and climate adaptation a priority. The Ministry of Community Development, Gender Affairs and Information of Dominica has a National Policy and Action Plan for Gender Equity and Equality in the Commonwealth of Dominica, which was adopted by the Government of Dominica in 2006 and updated in 2014. The main objective of the Policy is to secure for men and women alike the opportunities to maximise their potential as human beings and as valuable citizens recognising physiological and biological differences as well as those resulting from socially imposed constructs. This policy considers climate change and disaster management as one of the nine areas of work in relation to gender.

On the climate change front, Dominica's Low-Carbon Climate Resilient Development Strategy establishes the need to develop mitigation and adaptation strategies that respond to the differentiated impacts on men and women. Specific actions include considering women's needs and capacity building for emergency shelter management, vulnerability assessment and risk management and provision of safety nets in the form of affordable financing for asset recovery.

¹²⁹ Rawwida Baksh and Associates (2016). *Country Gender Assessments (CGAs) Synthesis Report*. Caribbean Development Bank, Bridgetown.



Grenada

Fact Sheet

- **Income Group: low-income¹³⁰**
- **Population: Total: 111, 454, 49.75% women, 50.24% men**
- **Co2 per capita: 2.2 CO2 METRIC TONS (2014)**
- **Human Development Index (HDI) Ranking (2018): 75/189**
- **Renewable energy consumption (% of total final energy consumption) 11%**
- **Forest area (% of total land area) 50%**
- **Agriculture, value added (% of GDP): 6.2¹³¹**
 - **Employment in agriculture (% of total employment) (modelled ILO estimate): n/a**
 - **Employment in agriculture, female (% of female employment) (modelled ILO estimate): n/a**
 - **Employment in agriculture, male (% of male employment) (modelled ILO estimate): n/a**
- **Labour force participation rate (% ages 15 and older): Women: N/A**
- **Employers, total (% of total employment) (modelled ILO estimate): n/a**
 - **Employers, female (% of female employment) (modelled ILO estimate): n/a¹³²**
 - **Employers, male (% of male employment) (modelled ILO estimate): n/a**

¹³⁰ Enterprise Surveys (2010)

¹³¹ World Bank (2016), World Bank Data.

¹³² World Bank (2016), World Bank Data.

- **Women with account at financial institution or with mobile money-service provider (% of female population ages 15 and older): n/a**
- **Coming up with emergency funds: possible (% age 15+): n/a**
- **Percentage of female graduates from STEM programmes in tertiary education, female (%): 8.2¹³³**
- **Percentage of female graduates from STEM programmes in tertiary education, male (%): 19.1¹³⁴**
- **Percentage of students in tertiary education enrolled in Engineering, Manufacturing and Construction programmes, female (%): 0.6¹³⁵**
- **Percentage of students in tertiary education enrolled in Engineering, Manufacturing and Construction programmes, male (%): 4.5¹³⁶**
- **Female professional and technical workers (% of total): n/a**
- **World Economic Forum (WEF) Gender Parity Index 2017 Ranking: n/a**
 - **Economic Participation and Opportunity Sub-Index: n/a**
- **Women, Business, and the Law Scores¹³⁷**
 - **Getting Paid:¹³⁸ 100/100**
 - **Starting a Job:¹³⁹ 50/100**
 - **Women ownership rights to property: Yes**
 - **Women's rights to inherit assets from parents or spouses: Yes**
- **Enterprise surveys**
 - **Per cent of firms with female participation in ownership: 57.3%**
 - **Per cent of firms with majority female ownership: n/a**
 - **Per cent of firms with a female top manager: 24%**

¹³³ World Bank (2017). World Bank Data.

¹³⁴ World Bank (2017). World Bank Data.

¹³⁵ World Bank (2017). World Bank Data.

¹³⁶ World Bank (2017). World Bank Data.

¹³⁷ World Bank (2018b). *Women, Business, and the Law: 2018*. Washington, DC: The World Bank. Available at: <http://wbl.worldbank.org/>

¹³⁸ In *Women, Business, and the Law*, the indicator "Getting a Job" assesses restrictions on women's ability to work, such as prohibitions on working at night or in certain occupations. This also covers laws on maternity, paternity and parental leave, retirement ages, equal remuneration for work of equal value and non-discrimination in the workplace. A score of less than 100 indicates at least one legal limitation on a woman's job prospects, earning potential, career growth or ability to balance work and family in the areas measured.

¹³⁹ In *Women, Business, and the Law*, the indicator "Starting a job" includes equal remuneration for work of equal value, anti sexual harassment legislation, and non-discrimination in the workplace. It examines personal income tax credits and deductions available to women relative to men and the provision of childcare and education services.

Grenada: Gender and Climate Resilience Overview

Grenada is a low-income country, ranking 75/189 in the UNDP's Human Development Index. As far as the legal framework, Grenada has specific gaps in laws allowing women starting a job.

The Government of Grenada has made gender and climate adaptation a priority. The Ministry of Social Development and Housing of the Government of Grenada is implementing their Gender Equality Policy and Action Plan, 2014-2024 (GEPAP), which was adopted by the Government of Grenada in 2014, and was developed with the support of UN Women and a consultative process that took place across the country with public and private sector stakeholders and women beneficiaries.¹⁴⁰ Chapter 1 of the Constitution of Grenada is regarded as Grenada's Human Rights Charter, and Article 13 prohibits discrimination by law and by persons acting as agents of the State. The main objective of the Policy is to promote gender equality in outcomes for women and men and sets out to influence policies and practices. Within Grenada's Gender Policy there is a recognition of the importance to develop gender-sensitive disaster response and preparedness, and of the absence of discussions on gender equality in policy-making, planning and development programmes related to climate change at the moment of its publication.

On the climate change front, Grenada's SPCR recognises the differentiated impacts that climate change is expected to have on men versus women due to different factors and insists on the need to gather and analyse sex-disaggregated data in order to promote gender-sensitive design and implementation of mitigation and adaptation strategies. One important element in this policy is the fact that women are expected to be part of the discussion at all the different stages of intervention design, implementation, and evaluation.

¹⁴⁰ Rawwida Baksh and Associates (2016). *Country Gender Assessments (CGAs) Synthesis Report*. Caribbean Development Bank, Bridgetown.



Figure 21: Preliminary Government of Grenada Climate Change and Gender Equality Projects¹⁴¹

Thematic Area	Actions
<p>General Gender and Climate Adaptation / Mitigation</p>	<p>As part of the Grenada GCF Ready programme, a two-day workshop on Gender Sensitivity for Climate Finance Project Writing was held in April 2019 for government, non-governmental organisations (NGOs), private sector, and other partners. It was organised by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, in collaboration with the Division of Economic and Technical Cooperation (National Designated Authority) in the Ministry of Finance, and the Division of Gender and Family Affairs (National Gender Machinery) of the Ministry of Social Development, Housing and Community Empowerment.</p> <p>-----</p> <p>Grenada appointed its Gender and Climate Change Focal Point in 2019.</p>
<p>Natural Disasters and Gender Equality</p>	<p>Grenada is part of the regional UNDP project being developed, Enabling Gender-Responsive Disaster Recovery, Climate and Environmental Resilience in the Caribbean (EnGenDER,) that will, among other things, provide technical support on gender equality policy mainstreaming to agencies with responsibility for development and implementation of gender-responsive and inclusive National Adaptation Plans (NAPs) and Nationally Appropriate Mitigation Actions (NAMAs).</p>

¹⁴¹ Grenada Comprehensive National Review on Implementation of the Beijing Declaration and Platform for Action (2019) https://www.cepal.org/sites/default/files/grenada_comprehensive_national_review_to_beijing_25_may_2019.pdf





Haiti

Fact Sheet

- **Income Group: low-income¹⁴²**
- **Population: 11, 123, 176. 49.44% men; 50.56 % women¹⁴³**
- **Co2 per capita: .3 CO2 METRIC TONS (2014)**
- **Human Development Index (HDI) Ranking (2018): 168/189¹⁴⁴**
- **Renewable energy consumption (% of total final energy consumption) 76%¹⁴⁵**
- **Forest area, 2016 (% of total land area) 3.5%¹⁴⁶**
- **Agriculture, value added (% of GDP): 17.5¹⁴⁷**
 - **Employment in agriculture (% of total employment) (modelled ILO estimate): 49.7¹⁴⁸**
 - **Employment in agriculture, female (% of female employment) (modelled ILO estimate): 34.1¹⁴⁹**
 - **Employment in agriculture, male (% of male employment) (modelled ILO estimate): 67.2¹⁵⁰**
- **Labour force participation rate 2017 (% ages 15 and older): Women:63.8 ; Men:72.6¹⁵¹**
- **Employers, total (% of total employment) (modelled ILO estimate): 1¹⁵²**
 - **Employers, female (% of female employment) (modelled ILO estimate): .8¹⁵³**
 - **Employers, male (% of male employment) (modelled ILO estimate): 1.2¹⁵⁴**
- **Women with account at a financial institution (% of female population ages 15 and older): 38%¹⁵⁵**
- **Coming up with emergency funds: possible (% age 15+) 2017: Women 46%, men 46%**

¹⁴² World Bank (2017). *The Global Findex Database*.

¹⁴³ World Bank (2018a)

¹⁴⁴ UNDP, *Human Development Index (2018)*, <http://hdr.undp.org/en/composite/HDI>

¹⁴⁵ World Bank (2015). *World Bank data*.

¹⁴⁶ World Bank (2016). *World Bank data*.

¹⁴⁷ World Bank (2016). *World Bank data*.

¹⁴⁸ World Bank (2018a). *World Bank data*.

¹⁴⁹ World Bank (2018a). *World Bank data*.

¹⁵⁰ World Bank (2018a). *World Bank data*.

¹⁵¹ ILO (International Labour Organisation) (2018a). *ILOSTAT database*. www.ilo.org/ilostat.

¹⁵² World Bank (2016)

¹⁵³ World Bank (2016). *World Bank data*.

¹⁵⁴ World Bank (2016). *World Bank data*.

¹⁵⁵ World Bank (2017). *The Global Findex Database*.



- **Percentage of female graduates from STEM programmes in tertiary education, female (%): n/a**
- **Percentage of female graduates from STEM programmes in tertiary education, male (%): n/a**
- **Percentage of students in tertiary education enrolled in Engineering, Manufacturing and Construction programmes, female (%): n/a**
- **Percentage of students in tertiary education enrolled in Engineering, Manufacturing and Construction programmes, male (%): n/a**
- **Female professional and technical workers (% of total): n/a**
- **World Economic Forum (WEF) Gender Parity Index 2017 Ranking: n/a**
 - **Economic Participation and Opportunity Sub-Index: n/a**
- **Women, Business, and the Law Scores¹⁵⁶**
 - **Getting paid:¹⁵⁷ 75/100**
 - **Starting a Job:¹⁵⁸ 50/100**
 - **Women ownership rights to property: yes**
 - **Women's rights to inherit assets from parents or spouses: yes**
- **Enterprise surveys**
 - **Per cent of firms with female participation in ownership: n/a**
 - **Per cent of firms with majority female ownership: n/a**
 - **Per cent of firms with a female top manager: n/a**
- **Adolescent fertility rate (births per 1,000 women ages 15-19): 37.4¹⁵⁹**

¹⁵⁶ World Bank (2018b). *Women, Business, and the Law: 2018*. Washington, DC: The World Bank. Available at: <http://wbl.worldbank.org/>

¹⁵⁷ In *Women, Business, and the Law*, the indicator "Getting Paid" assesses restrictions on women's ability to work, such as prohibitions on working at night or in certain occupations. This also covers laws on maternity, paternity and parental leave, retirement ages, equal remuneration for work of equal value and non-discrimination in the workplace. A score of less than 100 indicates at least one legal limitation on a woman's job prospects, earning potential, career growth or ability to balance work and family in the areas measured.

¹⁵⁸ In *Women, Business, and the Law*, the indicator "Starting a job" includes equal remuneration for work of equal value, anti sexual harassment legislation, and non-discrimination in the workplace. It examines personal income tax credits and deductions available to women relative to men and the provision of childcare and education services.

¹⁵⁹ World Bank 2017



Haiti: Gender and Climate Resilience Overview

Haiti is a low-income country and one of the poorest countries in the region, ranking 168/189 in the UNDP's Human Development Index. As far as the legal framework, Haiti presents specific gaps in laws allowing equality in women getting paid and starting a job.

The Government of Haiti has made gender and climate adaptation a priority. It has created an Inter-ministry Committee for Equality between Women and Men through Policy for Equality of Women and Men to be in place from 2014 to 2034. The main objective of this policy is to promote equality in outcomes for women and men in terms of rights and justice but also with regards to participation in economic, political and social affairs. Within this policy, however, there is no mention of climate resilience.

On the climate change front, Haiti's Climate Investment Fund focuses on renewable energy and considers gender inequity as one of the key sector challenges. In order to address this challenge, a Gender and Energy Interagency commission was created to maximise women's involvement in the clean energy supply chain and also as beneficiaries of energy services.



Jamaica

Fact Sheet

- **Income Group: upper middle income**
- **Population: 2,934,855 million, 49.75 men, 50.35 women.¹⁶⁰**
- **Co2 per capita: 2.6 CO2 METRIC TONS (2014)**
- **¹⁶¹ Human Development Index (HDI) Ranking (2018): 97/189**
- **Renewable energy consumption (% of total final energy consumption) 16.8%**
- **Renewable electricity output (% of total electricity output): 10.26**
- **Forest area (% of total land area) 31%**
- **Agriculture, value added (% of GDP): 6.6¹⁶²**
 - **Employment in agriculture (% of total employment) (modelled ILO estimate): 16.5¹⁶³**
 - **Employment in agriculture, female (% of female employment) (modelled ILO estimate): 9¹⁶⁴**
 - **Employment in agriculture, male (% of male employment) (modelled ILO estimate): 22.5¹⁶⁵**
- **Labour force participation rate (% ages 15 and older): Women:57.3 ; Men:77.4**
- **Employers, total (% of total employment) (modelled ILO estimate): 3.1¹⁶⁶**
 - **Employers, female (% of female employment) (modelled ILO estimate): 2.2¹⁶⁷**
 - **Employers, male (% of male employment) (modelled ILO estimate): 3.8¹⁶⁸**
- **Women with account at financial institution or with mobile money-service provider (% of female population ages 15 and older): 77.8¹⁶⁹**

¹⁶⁰ World Bank (2018) <https://data.worldbank.org/indicator/SP.POP.TOTL.FE.ZS?locations=JM>

¹⁶¹ World Bank (2014) <https://data.worldbank.org/indicator/>

¹⁶² World Bank (2016)

¹⁶³ World Bank (2018a)

¹⁶⁴ World Bank (2018a)

¹⁶⁵ World Bank (2018a)

¹⁶⁶ World Bank (2016)

¹⁶⁷ World Bank (2016)

¹⁶⁸ World Bank (2016)

¹⁶⁹ hdr.undp.org/en/indicators/175706



- **Coming up with emergency funds: possible (% age 15+) 2014: Women 54%, men 66%**¹⁷⁰
- **Percentage of female graduates from STEM programmes in tertiary education, female (%): n/a**
- **Percentage of female graduates from STEM programmes in tertiary education, male (%): n/a**
- **Percentage of students in tertiary education enrolled in Engineering, Manufacturing and Construction programmes, female (%): n/a**
- **Percentage of students in tertiary education enrolled in Engineering, Manufacturing and Construction programmes, male (%): n/a**
- **Female professional and technical workers (% of total): n/a**
- **World Economic Forum (WEF) Gender Parity Index 2017 Ranking: 44/149**
 - **Economic Participation and Opportunity Sub-Index: 29/149**
- **Women, Business, and the Law Scores**¹⁷¹
 - **Getting Paid:**¹⁷² 50/100
 - **Starting a Job:**¹⁷³ 25/100
 - **Women ownership rights to property: yes**
 - **Women's rights to inherit assets from parents or spouses: yes**
- **Enterprise surveys**
 - **Per cent of firms with female participation in ownership (2010): 38.2**
 - **Per cent of firms with majority female ownership (2010): n/a**
 - **Per cent of firms with a female top manager: 24.1%**

¹⁷⁰ World Bank (2017). *The Global Findex Database*.

¹⁷¹ World Bank (2018b). *Women, Business, and the Law: 2018*. Washington, DC: The World Bank. Available at: <http://wbl.worldbank.org/>

¹⁷² In *Women, Business, and the Law*, the indicator "Getting a Job" assesses restrictions on women's ability to work, such as prohibitions on working at night or in certain occupations. This also covers laws on maternity, paternity and parental leave, retirement ages, equal remuneration for work of equal value and non-discrimination in the workplace. A score of less than 100 indicates at least one legal limitation on a woman's job prospects, earning potential, career growth or ability to balance work and family in the areas measured.

¹⁷³ In *Women, Business, and the Law*, the indicator "Starting a job" includes equal remuneration for work of equal value, anti sexual harassment legislation, and non-discrimination in the workplace. It examines personal income tax credits and deductions available to women relative to men and the provision of childcare and education services.



Jamaica: Gender and Climate Resilience Overview

Jamaica is an upper middle-income country, ranking 97/189 in the UNDP's Human Development Index. As far as the legal framework, Jamaica is ranked 133/187 in the World Bank's Women, Business, and the Law (WBL) with specific gaps in laws allowing equality in women getting paid and starting a job.

The Government of Jamaica has made gender and climate adaptation a priority. The Ministry of Youth, Sports and Culture with Responsibility of Gender Affairs published a National Policy for Gender Equality in 2011. This policy promotes equal access to opportunities, resources, and rewards to women and men in order to eliminate discrimination based on gender and promotes sustainable human development. Additionally, the National Development Plan in its Gender Sectoral Plan considers differentiated approaches for women and men considering their particular impacts and constraints. Women are expected to be actively involved in environmental decision-making.

On the climate change front, Jamaica's SPCR has a limited mention of the gender-differentiated impacts and needs from climate change impacts; however, the programme recognises the need to assess these through gender mapping and mentions the need for gender sensitivity during design, planning and implementation.



Saint Lucia

Fact Sheet

- **Income Group: upper middle-income¹⁷⁴**
- **Population: 181,889; 48.94% men, 51.06% women.**
- **Co2 per capita: 2.3 CO2 METRIC TONS (2014)**
- **Human Development Index (HDI) Ranking (2018): 90/189**
- **Renewable energy consumption (% of total final energy consumption) 2.1%**
- **Forest area (% of total land area) 33%**
- **Agriculture, value added (% of GDP): 2.1¹⁷⁵**
 - **Employment in agriculture (% of total employment) (modelled ILO estimate): 10¹⁷⁶**
 - **Employment in agriculture, female (% of female employment) (modelled ILO estimate): 4.1¹⁷⁷**
 - **Employment in agriculture, male (% of male employment) (modelled ILO estimate): 14.7¹⁷⁸**
- **Labour force participation rate (% ages 15 and older): Women:61.2 ; Men:75.9**
- **Contributing family workers, total (% of total employment) (modelled ILO estimate): 8¹⁷⁹**
 - **Contributing family workers, female (% of female employment) (modelled ILO estimate): 1.24**
 - **Contributing family workers, male (% of male employment) (modelled ILO estimate): 0.4¹⁸⁰**

¹⁷⁴ World Bank (2010). Enterprise Surveys Database.

¹⁷⁵ World Bank (2016)

¹⁷⁶ World Bank (2018a)

¹⁷⁷ World Bank (2018a)

¹⁷⁸ World Bank (2018a)

¹⁷⁹ World Bank (2016)

¹⁸⁰ World Bank (2016)

- **Employers, total (% of total employment) (modelled ILO estimate): 5.9¹⁸¹**
 - **Employers, female (% of female employment) (modelled ILO estimate): 3.3¹⁸²**
 - **Employers, male (% of male employment) (modelled ILO estimate): 8¹⁸³**
- **Women with account at financial institution or with mobile money-service provider (% of female population ages 15 and older): n/a**
- **Coming up with emergency funds: possible (% age 15+): n/a**
- **Percentage of female graduates from STEM programmes in tertiary education, female (%): n/a**
- **Percentage of female graduates from STEM programmes in tertiary education, male (%): n/a**
- **Percentage of students in tertiary education enrolled in Engineering, Manufacturing and Construction programmes, female (%): n/a**
- **Percentage of students in tertiary education enrolled in Engineering, Manufacturing and Construction programmes, male (%): n/a**
- **Percentage of female graduates from STEM programmes in tertiary education, female (%): n/a**
- **Female professional and technical workers (% of total): n/a**
- **World Economic Forum (WEF) Gender Parity Index 2017 Ranking: n/a**
 - **Economic Participation and Opportunity Sub-Index: n/a**
- **Women, Business, and the Law Scores¹⁸⁴**
 - **Getting Paid:¹⁸⁵ 100/100**
 - **Starting a Job:¹⁸⁶ 100/100**
 - **Women ownership rights to property: yes**
 - **Women's rights to inherit assets from parents or spouses: yes**
- **Enterprise surveys**
 - **Per cent of firms with female participation in ownership: 32.1%**
 - **Per cent of firms with majority female ownership: n/a**
 - **Per cent of firms with a female top manager: 23.7%**

¹⁸¹ World Bank (2016)

¹⁸² World Bank (2016)

¹⁸³ World Bank (2016)

¹⁸⁴ World Bank (2018b). *Women, Business, and the Law: 2018*. Washington, DC: The World Bank. Available at: <http://wbl.worldbank.org/>

¹⁸⁵ In *Women, Business, and the Law*, the indicator "Getting a Job" assesses restrictions on women's ability to work, such as prohibitions on working at night or in certain occupations. This also covers laws on maternity, paternity and parental leave, retirement ages, equal remuneration for work of equal value and non-discrimination in the workplace. A score of less than 100 indicates at least one legal limitation on a woman's job prospects, earning potential, career growth or ability to balance work and family in the areas measured.

¹⁸⁶ In *Women, Business, and the Law*, the indicator "Starting a job" includes equal remuneration for work of equal value, anti sexual harassment legislation, and non-discrimination in the workplace. It examines personal income tax credits and deductions available to women relative to men and the provision of childcare and education services.



Saint Lucia: Gender and Climate Resilience Overview

Saint Lucia is an upper middle-income country, ranking 90/189 in the UNDP's Human Development Index. As far as the legal framework, Saint Lucia is ranked 41/187 in the World Bank's WBL with no gaps in laws pertaining to women and men and their income generation activities.

The Government of Saint Lucia considers climate adaptation a priority. There is no gender equality policy whatsoever in the country, but its SPCR expects to become a source of sex-disaggregated information with regards to differentiated needs and impacts in relation to climate change adaptation and mitigation strategies. The focus is on data collection and analysis, to find evidence of potential links between climate change and gender.



Saint Vincent and the Grenadines

Fact Sheet

- **Income Group: upper middle income¹⁸⁷**
- **Population: 110, 210 total; 50.41% men, 49.59% women¹⁸⁸**
- **Co2 per capita: 1.9 CO2 METRIC TONS (2014)**
- **Human Development Index (HDI) Ranking (2018): 99/189**
- **Renewable energy consumption (% of total final energy consumption) 5.8%**
- **Forest area (% of total land area) 69%**
- **Agriculture, value added (% of GDP): 6.9¹⁸⁹**
 - **Employment in agriculture (% of total employment) (modelled ILO estimate): 13.5¹⁹⁰**
 - **Employment in agriculture, female (% of female employment) (modelled ILO estimate): 6.7¹⁹¹**
 - **Employment in agriculture, male (% of male employment) (modelled ILO estimate): 18.6¹⁹²**
- **Labour force participation rate (% ages 15 and older): Women:58.6%; Men:80.3%**
- **Contributing family workers, total (% of total employment) (modelled ILO estimate): .6¹⁹³**
 - **Contributing family workers, female (% of female employment) (modelled ILO estimate): .57**
 - **Contributing family workers, male (% of male employment) (modelled ILO estimate): .6¹⁹⁴**

¹⁸⁷ World Bank (2010). *Enterprise Surveys Database*.

¹⁸⁸ World Bank (2018a).

¹⁸⁹ World Bank (2016)

¹⁹⁰ World Bank (2016)

¹⁹¹ World Bank (2016)

¹⁹² World Bank (2016)

¹⁹³ World Bank (2016)

¹⁹⁴ World Bank (2016)

- **Employers, total (% of total employment) (modelled ILO estimate): 2.9¹⁹⁵**
 - **Employers, female (% of female employment) (modelled ILO estimate): 1.6¹⁹⁶**
 - **Employers, male (% of male employment) (modelled ILO estimate): 3.8¹⁹⁷**
- **Women with account at financial institution or with mobile money-service provider (% of female population ages 15 and older): n/a**
- **Coming up with emergency funds: possible (% age 15+): n/a¹⁹⁸**
- **Percentage of female graduates from STEM programmes in tertiary education, female (%): n/a**
- **Percentage of female graduates from STEM programmes in tertiary education, male (%): n/a**
- **Percentage of students in tertiary education enrolled in Engineering, Manufacturing, and Construction programmes, female (%): n/a**
- **Percentage of students in tertiary education enrolled in Engineering, Manufacturing, and Construction programmes, male (%): n/a**
- **Female professional and technical workers (% of total): n/a**
- **World Economic Forum (WEF) Gender Parity Index 2017 Ranking: n/a**
 - **Economic Participation and Opportunity Sub-Index: n/a**
- **Women, Business, and the Law Scores¹⁹⁹**
 - **Getting Paid:²⁰⁰ 50/100**
 - **Starting a Job:²⁰¹ 25/100**
 - **Women ownership rights to property: yes**
 - **Women's rights to inherit assets from parents or spouses: yes**
- **Enterprise surveys**
 - **Per cent of firms with female participation in ownership: 76%**
 - **Per cent of firms with majority female ownership: n/a**
 - **Per cent of firms with a female top manager: 38.6%**

¹⁹⁵ World Bank (2016)

¹⁹⁶ World Bank (2016)

¹⁹⁷ World Bank (2016)

¹⁹⁸ World Bank (2017). *The Global Index Database*.

¹⁹⁹ World Bank (2018b). *Women, Business, and the Law: 2018*. Washington, DC: The World Bank. Available at: <http://wbl.worldbank.org/>

²⁰⁰ In *Women, Business, and the Law*, the indicator "Getting a Job" assesses restrictions on women's ability to work, such as prohibitions on working at night or in certain occupations. This also covers laws on maternity, paternity and parental leave, retirement ages, equal remuneration for work of equal value and non-discrimination in the workplace. A score of less than 100 indicates at least one legal limitation on a woman's job prospects, earning potential, career growth or ability to balance work and family in the areas measured.

²⁰¹ In *Women, Business, and the Law*, the indicator "Starting a job" includes equal remuneration for work of equal value, anti sexual harassment legislation, and non-discrimination in the workplace. It examines personal income tax credits and deductions available to women relative to men and the provision of childcare and education services.



Saint Vincent and the Grenadines: Gender and Climate Resilience Overview

Saint Vincent and the Grenadines is an upper middle-income country, ranking 99/189 in the UNDP's Human Development Index. As far as the legal framework, Saint Vincent and the Grenadines is ranked 135/187 in the World Bank's WBL with specific gaps in laws allowing equality in women getting paid and starting a job.

The Government of Saint Vincent and the Grenadines has climate adaptation a priority. There is no gender equality policy whatsoever in the country; however, its SPCR considers gender equality as key for reducing vulnerability of communities and amply discusses how climate change adaptation and mitigation strategies should consider gender differences in interventions. The climate resilience strategy aims to influence policy-making and practices that are gender-sensitive.



Annex 2: Gender Inclusion programmes spearheaded by the government

Country	National Gender Policy (Name)	Key Objective Climate Change (Y/N)	Mentions Climate Change as an issue	PPCR Priority Areas
Dominica	National Policy and Action Plan for Gender Equity and Equality (2006, updated in 2014)	Y	'One of the new areas is the issue of climate change and disaster management, there is also a section that talks about family, cultural practices and stereotypes, so it's about nine areas but these are all of the areas that have been presented'.	Agriculture and food security, water quality and quantity, fisheries, climate change impacts on coastal and marine resources, infrastructure and human settlements, tourism, forestry
Grenada	The Gender Equality Policy and Action Plan 2014-2024	Y	'Grenada is exposed to considerable macro-economic vulnerability due to natural disasters, which impact on men and women differently. Gender sensitivity needs to be embedded in both disaster response as well as disaster preparedness, with respect to the specific needs of different communities, households and persons with special needs. Despite the fact that many aspects of the 'green economy' all have gender dimensions, e.g. water management, waste management, land management, renewable energy, clean transportation, and 'green' buildings, discussions on gender equality are relatively absent from policy-making, planning, and development programmes on these issues'.	Agriculture and food security, water quality and quantity, fisheries, climate change impacts on coastal and marine resources, infrastructure and human settlements, tourism, forestry
Haiti	Politique Nationale Egalité Femmes Hommes (EFH) (2014-2034)	N		Agriculture and food security, coastal zone management and reconstruction (sectors/themes) are the main areas, with sub-sectors/themes being infrastructure, land planning, and data management

Country	National Gender Policy (Name)	Key Objective Climate Change (Y/N)	Mentions Climate Change as an issue	PPCR Priority Areas
Jamaica	National Policy for Gender Equality (2011) National Development Plan- Gender Sectoral Plan (2009-2030)	Y	<p>Involve women actively in environmental decision-making at all levels and integrate gender concerns and perspectives in policies and programmes for sustainable development to minimise the differential effects of climate change and natural disasters. Establish and strengthen mechanisms at the national level to assess the differential impact of environmental policies on women and men (Beijing Platform for Action 1995)</p> <p>National Development Plan — Gender Sectoral Plan (2009-2030) Climate Change adaptation and mitigation measures will need to take into account issues such as energy production and use; water production, access and right; land use and management; disaster mitigation; gendered governance and decision-making; impact on the economy, migration and displacement of peoples. In all of these areas, women’s and men’s roles and status have to be taken into account if the solutions are to be viable and sustainable. A new political ethos has to prevail when taking into account this issue in our planning to 2030 — one that places the equality between men and women at its centre, especially those living in poverty.</p>	Agriculture, land-use planning, health, water resources, integrated coastal zone management, climate proofing of national and sectoral plans, tourism, and data management



Country	National Gender Policy (Name)	Key Objective Climate Change (Y/N)	Mentions Climate Change as an issue	PPCR Priority Areas
Saint Lucia	No (2017)	N	Saint Lucia does not have a national plan to address GBV, nor does it have a gender equality policy.	Agriculture, coastal and marine resources, financial sector, forestry, biodiversity, health, human settlement, critical infrastructure, tourism, and water resource management. Data needs were also highlighted for Saint Lucia particularly the need for bathymetric and hydrometric data
Saint Vincent and the Grenadines	No	N/A	N/A	Monitoring and evaluation of environmental hazards, watershed management, public sensitisation and awareness, integrated planning, and data management



Annex 3: Institutional arrangements for design and implementation of gender and climate activities

Country	National Climate Change Institutional Arrangement / Policy	Gender as Key Objective (Y/N)	Mentions Gender Equality as an issue	Includes Specific Activities Related to Gender Equality
Dominica	Low-Carbon Climate Resilient Development Strategy (2012-2020)	No	The document dedicates a chapter to the linkage between climate change and gender. It refers to a report that informs how climate change adaptation and mitigation strategies should include a gender perspective to ensure that women and other vulnerable segments of society are also benefited from such interventions. Enhancing Gender Visibility in Disaster Risk Management and Climate Change in the Caribbean is the name of the report prepared by the UNDP.	The recommendations included in the mentioned report, including construction of community emergency shelters, training in vulnerability assessment and risk management, and the provision of social safety nets through financial service provision to rebuild and recover assets after extreme events are being addressed as priority investments under the Climate Resilient Development Pathway pillar of the strategy.
Dominica	SPCR 2012-2017	No	The document considers addressing gender issues as of high importance and informed by national surveys and considers this a priority. It also mentions that at least 40% of Climate Change Trust Fund should be reserved for women and hints at upcoming specificity during implementation.	Activities mentioned include gender impact assessments and criteria when assigning grants.
Grenada	Grenada SPCR, prepared for the PPCR in 2011.	No	The document recognises the differentiated impacts that climate change is expected to have on men versus women due to different factors. It is a priority to collect gender-disaggregated data to inform gender-sensitive design of interventions.	As part of all four technical assistance projects an overall strategy for gender inclusion should be prepared for implementation. Additionally, the investment projects are expected to include women in all stages, understand specific gender concerns for planning and implementation, pay attention to extremely vulnerable groups which could include men and children, and include women as part of the monitoring and evaluation processes.

Country	National Climate Change Institutional Arrangement / Policy	Key Objective Climate Change (Y/N)	Mentions Gender Equality as an issue	Includes Specific Activities Related to Gender Equality
Haiti	PANA PSDH NDC	No	PANA is the first strategic document of our country that takes into account the gender in climate change (women and girls are the most affected by the country's vulnerabilities). The PSDH includes gender equality as one of the priorities for social re-foundation. The NDC took into account the gender and climate change sector, addressing gender issues in all priority sectors.	The document highlights the importance of gathering and analysing gender-disaggregated data to inform design, implementation and follow up, considering clear linkages between climate change and differentiated impacts on vulnerable groups including women.
Haiti	Climate Investment Funds Scaling-Up Renewable Energy Programme (SREP) SREP Investment Plan for Haiti	No	The document considers gender inequity as one of the key sector challenges. The document highlights the accentuated challenges women face due to energy deprivation.	A Gender and Energy Interagency Commission was created in August 2014. Several initiatives also expect women to be integrated in the supply chain particularly linked to improve women's livelihoods but also off-grid energy business and sustainability. Gender-sensitive approaches are part of the criteria for funding decisions.
Jamaica	Jamaica SPCR Prepared for PPCR in 2011, revised in 2012.	No	Does not make a specific link between climate change and its increased impacts on women. The document makes a reference to national gender policies without this reflection.	The document points at a few gender inclusion activities such as identifying the differentiated needs and vulnerabilities via gender mapping and other unspecified tools, and more specifically within the investment project 1, one of its specific objectives is to enable effective planning and design of gender sensitive adaptation initiatives.



Country	National Climate Change Institutional Arrangement / Policy	Key Objective Climate Change (Y/N)	Mentions Gender Equality as an issue	Includes Specific Activities Related to Gender Equality
Saint Lucia	Saint Lucia's SPCR	No	There is a recognition of the need to look into gendered impacts of climate change but the focus is more on gathering and analysing sex-disaggregated data.	There is mention of the importance of ensuring inclusion and participation with special attention to gender and vulnerable groups. The programme aims at gathering sex-disaggregated data and becoming a source of such information in relation to climate change impacts.
Saint Vincent and the Grenadines	SPCR Saint Vincent and the Grenadines (2011)	No	Gender is highlighted as key for reducing vulnerability of communities and also as part of improvements required in legislation and enforcement. One of the key results from the implementation of the investment strategy is to have designed and implemented a gender-sensitive disaster risk management strategy. There is ample discussion about the increased vulnerabilities that women experienced when faced with the immediate impacts and aftermath of climate change risks and events.	Component 1 focuses on piloting watersheds and through the implementation of these pilots also collect data around gender issues. A specific workstream around developing a gender-sensitive shelter management policy is included.



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