



Ways to Gender-Smart Climate Finance: Sustainable Water Supply and Sanitation

A gender-smart climate finance investment can be defined as Paris aligned and meeting climate finance and 2X criteria.

The growing global demand for water is already leading to water stress in many regions¹ that will only be exacerbated by the effects of climate change. Approximately one-third of countries have medium or high levels of water stress, which disproportionately impacts women through their primary role in accessing water for families.2 For both men and women, access to - and use of - clean, readily available drinking water supply and sanitation facilities are key for human health and ecosystem sustainability. About 660 million people still lack access to safe drinking water, which means \$1.7 trillion of investment is needed in the sector.3 Water is also vital for many economic activities, including agriculture, industry and some types of energy.

The impact of climate change on the water sector throughout this century are complex. Climate change affects the water cycle, influencing patterns of rainfall, leading to more frequent droughts and more intensive rainstorms, depending on the region. Climate change also negatively impacts freshwater ecosystems and is projected to reduce water quality and availability. Under 2°C of warming, there is the strong probability of reduced water availability in areas such as the Mediterranean and in southern Africa. This probability is reduced under 1.5°C of warming, but a drying trend is already detectable in the Mediterranean region with global warming of less than 1°C.4 More frequent extreme weather events – another consequence of climate change - can damage water infrastructure and cause economic losses. These effects can compound water stress and competition for water among agriculture, ecosystems, industry and settlements, which in turn could lead to loss of productivity and economic value.5

To protect society and natural systems, countries must build resilience to the impacts of climate change in the water and sanitation sector, and reduce emissions from water supply and wastewater treatment. Actions needed include water resource management (and more efficient use of water in all sectors), resilient water infrastructure, improved wastewater treatment, and the protection of natural systems such as river basins, aquifers and watersheds. Both technological and nature-based solutions will need to be deployed. The necessary measures will impact all sectors of the economy, bringing new business opportunities as well as risks.

Gender-smart investing is not just good business. It can catalyse climate finance for the sustainable use of water resources, sustainable water and sanitation services and increase resilience to climate change impacts. We know companies that perform well on sustainability and gender diversity return greater profit.6,7

What is a gender-smart climate finance investment?

Put simply, it is an investment that delivers both significant climate outcomes and promotes gender equality and women's empowerment. A gender-smart climate finance investment can be defined as:

- Being 'Paris aligned' assessed as consistent with a pathway towards low GHG emissions and climateresilient development in line with the objectives of the Paris Agreement. Paris aligned projects are characterised by:
 - A carbon footprint or carbon intensity that is limited or declining in line with a Paris aligned trajectory;
 - Limited vulnerability to physical climate hazards;
 - Low transition risk and carbon lock-in risk; and
 - Does not indirectly support non-aligned activities.

This brief is part of a series of gender and climate finance thematic and sector briefs produced by the 2X Climate Finance Taskforce. You can access the series here.













- 2. Meeting climate finance criteria.
- 3. Meeting 2X criteria.

Methodologies that assess Paris alignment at the transaction and institution level are emerging, for example Multilateral Development Banks (MDBs) have developed a joint Paris alignment approach and CDC has also published its own approach. Climate finance eligibility, either as mitigation or adaptation finance (or both), can be defined through established criteria or taxonomies, such as the joint MDB methodology for tracking climate finance or the European Union (EU) taxonomy for sustainable finance.

We encourage users of this guide to select a credible Paris alignment approach and climate finance definition which can then be overlaid with the 2X criteria to reveal the intersection of gender and climate finance. 2X is an industry standard aiming to mobilise investments in businesses that contribute to gender equality and women's economic empowerment.

When should I use this sector note?

This sector note supports development finance institutions (DFIs), MDBs, fund managers and other financial institutions to pursue gender-responsive climate investments in line with the 2X criteria and respective climate eligibility frameworks, as well as other relevant impact frameworks (such as environmental social and governance (ESG) considerations, development impact and transition impact).

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An analysis of 100 water projects found that when initiatives included women, they were six to seven times more effective than those that did not



Why? Applying a gender-smart climate lens to the water and sanitation sector

Gender mainstreaming across climate finance investments in the water and sanitation sector can accelerate the transition towards net zero, resilient economies

Women as leaders, entrepreneurs and employees play a key role in securing and managing water resources, but are often excluded from employment opportunities and decision-making in the water sector, which is heavily male-dominated: data from 64 water and sanitation service providers in 28 countries showed that, on average, only 18 percent of water utilities workers were women.⁸

Women as consumers are already changing the way water is used, through innovations on water re-use and recycling, as well as the adoption of climate-smart, water-efficient agricultural practices. Enabling women through access to information, training and technology (for example on improved irrigation systems), will give women more autonomy, open up more economic opportunities and make it more likely that water savings are made. Traditional knowledge held by indigenous people, including women, can be important for resource-efficient and sustainable use of natural water ecosystems.

Clearly, women's participation is essential to accelerate the transition to a net zero and resilient water and sanitation sector. To support this transformation, action and investment is required in three key areas.

First, the emissions profile of water and sanitation investments needs to align with net zero pathways consistent with the goals of the Paris Agreement.

Emissions from water and sanitation investments – such as wastewater treatment plants and desalination plants – can be considerable and need to be decarbonised in line with a country's net zero pathway. This means improving energy and water use efficiency, using renewable power, reducing and utilizing methane emissions from sewage waste, reducing process emissions and using nature-based solutions. Water industries such as those in the UK are already developing roadmaps to reach net zero. 12

Second, investment is needed in new and improved water infrastructure in line with national adaptation plans.¹³ Increasing access to sustainable water supplies in cities and across agricultural and industrial businesses, for example, will help build end-user resilience in the face of changing patterns of precipitation and water stress. Ensuring that women benefit equally from increased access will help address the climate vulnerabilities women are particularly exposed to.





Third, new and existing water and sanitation assets themselves must be made resilient.14 Chronic and acute physical climate risks specific to the location of operation can both impact water infrastructure. For example, the flooding of sewer pumping systems can lead to health hazards and cross-contamination. 15 Climate change risk assessments and subsequent adaptation interventions must be carried out on all new and existing water infrastructure to ensure continuity of supply in a heating climate. From an investor perspective, this is important to protect the value of the investment. From an impact perspective, women are often more adversely affected by lack of water and sanitation infrastructure, and it is crucial for achievement of gender equality and the other United Nations Sustainable Development Goals (SDGs) that water supply is maintained.

Climate change has the propensity to exacerbate existing inequalities in the water and sanitation sector

Lack of clean water and sanitation disproportionately impacts women, and pressures on these systems will increase with climate change. In many countries, women are the primary users of water given their household responsibilities (fetching water, cooking, cleaning) and production activities, such as farming. Collectively, women around the world spend 200 million hours daily collecting water. There is also is an additional 266 million hours each day lost because there is no toilet at home. In over 80 per cent of households where water has to be fetched, women and girls do the fetching.

Menstruating girls who cannot access clean sanitation facilities with access to running water at school are more likely to stay at home and not go to school, leading to a higher risk of dropping out of education completely. In South Asia, a third of girls miss 1-3 school days a month during their period, while in sub-Saharan Africa one in ten girls miss school days during their period, sometimes missing up to 20 per cent of the school year. Women who must practice open defecation are twice as likely to face non-partner sexual violence compared to women with access to a household toilet. ¹⁹ Climate change is likely to impact existing water infrastructure and decrease the availability of water in many regions ²⁰ with potential impacts on access to clean water and sanitation.

Illnesses related to lack of water, basic sanitation and hygiene are responsible for the deaths of almost 800,000 women around the world in a single year. Some 88 per cent of all diarrhoeal diseases, and half of all nutritional deficiencies, are related to the lack of these basic services. Today, 50 per cent of child malnutrition is associated with unsafe water, inadequate sanitation and poor hygiene. Inadequate water supply and sanitation poses significant health risks (waterborne diseases, infant mortality) and prevents primarily women and girls from attending work and school. Impacts of climate change are likely to increase the burden of water-borne diseases through direct impacts such as floods bringing contamination, but also through other factors, such as increasing temperature and decreasing fresh water supply.

BOX 1: Water equity and Water Access Rwanda

The Water Equity Global Access Fund catalyses the growth of water and sanitation financing by providing loans to local financial institutions (Fls), including banks, non-bank Fls, savings and credit cooperatives, housing finance companies, and non-profit microfinance institutions (MFls), to help support the growth of their water and sanitation microloan portfolios. These investments accelerate water and sanitation access for millions of people living in poverty within target markets. So far, 94 per cent of people reached are women.²⁵

Rwanda's abundant water resources face increased pressure from a changing climate. Climate risks include reduced water quality, increased flooding and sedimentation, as well as water shortage during longer dry spells.²⁶ Against this backdrop, Water Access Rwanda (WARwanda) is a woman-founded, woman-led social enterprise that provides simple, affordable and durable water solutions in East Africa, starting from Rwanda. WARwanda provides water filtration devices, products and services aimed at finding and exploiting underground water, as well as offering full community water development schemes and training programmes. WARwanda also aims to reduce women's time burden and risks of sexual harassment by introducing safe water kiosks.²⁷

	Three goals of the transition to Net Zero and a resilient water sector
1	Reduce emissions to Net Zero
2	Increase resilience of water infrastructure
3	Increase access to sustainable water supplies

Gender responsiveness





Business Case



- Improve effectiveness: Data from 64 water and sanitation service providers from 28 countries found that women constituted only 23 per cent of engineers and managers. For a water and sanitation service provider, increasing the number of women employees, thereby mirroring its customer base, can improve service outcomes, increase the tax base and number of service users, and improve overall satisfaction with services. An analysis of 100 water projects found that when initiatives included women, they were six to seven times more effective than those that did not. So
- Reach new customers: There is an \$18 billion market demand for water and sanitation services coming from low-income families in developing countries.³¹ Providing financing to meet these needs would reach as many as 600 million people and would meet women and girls' pressing needs for water and sanitation services. For instance, Water.org, an organisation that aims to remove the financial barrier to access safe water and sanitation, has served more than 15 million people so far. Of those served, more than 90 per cent of the loans were borrowed by women, who repaid them at a repayment rate of 99 per cent.³²
- Enhance customer satisfaction: Women household members are typically the primary users of water services (for cooking, cleaning and caretaking purposes) and often responsible for water bill payments. However, women are often not consulted on tariff setting, bill payment modalities and service design.³³ Expanding urban water and sanitation services in informal urban settlements can reach previously unserved areas and expand the client base, helping to address cost recovery challenges.





Approximately one-third of countries have medium or high levels of water stress

Impact Case



- Improve resource efficiency: A study³⁴ found that companies with improved gender diversity on boards are 46 per cent more likely to reduce the intensity of water use than those without.³⁵ Data from India also showed the number of sustainable drinking water projects in areas with women-led councils was 62 per cent higher than in those with men-led councils.³⁶
- Increase women's economic opportunities: Reducing the time women and girls spend in fetching water, particularly in rural areas, can increase time for productive and income-generating activities, as well as allowing more time for rest, leisure, and social interaction. Women and girls in Asia and Africa walk an average of six kilometres daily to collect water, preventing them from attending school or engage in income-generating activities.37 This distance is set to increase given water will be of a lower quality and be harder to find as a result of climate change. For every year a girl stays in school, her earning potential increases by as much as 25 per cent. Providing training for women to be employed in water supply also increases economic opportunities, for example women in Gujarat earned an income after being trained to fix village water pumps.38
- Reduce gender-based violence: Water scarcity and lack of sanitation facilities can put women and girls at risk of gender-based violence if they venture out at night to collect water or use the toilet.³⁹ In Delhi, India, about 70 per cent of sexual assaults occur when women go outside their homes to defecate in the open.
 ⁴⁰This is related to the fact that women tend to go out at night due to a feeling of lack of dignity if they go during the day.
- Increase resilience to climate change: Improving women's access to a robust water system also increases their resilience to climate change through improved health outcomes and, particularly in agriculture, through reduced vulnerability to climate-related droughts. For example, in China, a project to increase water-use efficiency in the agricultural sector has boosted production and increased farmer incomes.⁴¹ Women with stronger financial reserves are better able to cope with climate change impacts.







2. How to invest with a gender-smart climate lens: water and sanitation

A gender-smart climate finance investment can be defined as Paris aligned and meeting climate finance and <u>2X criteria</u>. This section maps potential investments in the water and sanitation sector and explains how to interpret the 2X criteria.

Climate finance eligibility

Some examples of investments that may qualify as climate finance, and where a gender-smart lens could be applied in the water and sanitation sector include:

- Water collection, treatment and supply which either builds resilience to a context specific climate risk (adaptation finance) or reduces GHG emissions (mitigation finance)
- Activities that contribute to water efficiency by responding to context-specific climate risk of water stress (adaptation finance) or reduces GHG emissions (mitigation finance). This could include interventions like;
 - Reduction water consumption by improving water efficiency (investments in water-efficient technologies)
 - Reducing demand for irrigation water
 - Water harvesting
 - Greywater and blackwater reuse at the building or local level
 - Treated wastewater reuse for irrigation
 - Improved water management
- Industrial water use that either builds resilience to a context-specific climate risk (adaptation finance) or reduces GHG emissions (mitigation finance)
 - Industrial water efficiency certifications
- GHG emission reduction in wastewater management

2X eligibility

To qualify as a 2X investment, investments must meet or commit to targets under at least ONE of the 2X's criteria — women's entrepreneurship, leadership, employment, consumption, or financial intermediaries. More details on how to invest and apply the 2X criteria can be found in the 2X Challenge Working Group's 'Guide to the 2X Criteria'.

Examples of potential investments that align with the 2X criteria in the sustainable water and sanitation sector:

Women Entrepreneurs

Investment in women-founded or women-owned (51 per cent) companies providing climate finance qualifying water and wastewater services or technologies.

Example: A women-founded, women-led company that installs canal lining and micro-irrigation technologies in areas of climate-related water stress.

Women Leaders

Investment in companies providing climate finance-qualifying water and wastewater services and technologies, in which the share of women in senior management stands at 20 per cent or the share of women on the board or investment committee is at least 20 per cent.

Example: A company providing industrial water efficiency certification services whose leadership is composed of 50 per cent women.

Women Employees

Investment in companies providing climate finance-qualifying water and wastewater services and technologies, where the share of women in the workforce stands at 30 per cent, and there is one 'quality' indicator beyond compliance (such as mentoring, equal pay, skills development and employee resource network).

Example: A water and sanitation company building resilience to context-specific physical climate change risks provides training to 30 per cent of its women employees as hand-pump mechanics, thereby addressing a skills shortage in villages relying on such pumps for access to water.

Women Consumers

Investment in companies providing climate finance-qualifying water and wastewater services and technologies that improve women's access to the benefits of climate-smart water services through certain project design features, marketing strategies or tariff settings.

Example: An investee that undertook a gender assessment to design composting public toilets (thereby reducing GHG emissions) with safety considerations, ensuring that toilet doors have internal locks and that are situated in accessible locations that are well-lit and not too remote.

Impact via Financial Intermediaries

Investments in on-lending facilities where 30 per cent of the investor or FI loan proceeds, or where 30 per cent of the FI's portfolio or percentage of companies supported by the fund are climate finance-qualifying and meet direct criteria.

Example: A fund investee meets the indirect criteria by investing 35 per cent of their portfolio in water and sanitation service provision, which is 2X aligned based on the employment criteria and builds climate resilience. Best practice suggests the investor/FI monitors adherence to the percentage threshold over time and develops a Gender Action Plan to support additional efforts to support women's access to longer than law-stipulated maternity leave. The investment is considered 2X aligned and as climate finance.







3. What? Gender-smart climate finance in practice

The following investments by 2X members provide an overview of what a gender-smart climate investment can look like in the sustainable water and sanitation sector.



- CONSUMPTION
- CLIMATE ADAPTATION

How Azure Source Capital expands women's access to clean water in El Salvador

Setting the scene: Azure Source Capital (Azure) helps improve water supply for 300,000 men and women, by combining financial support with training so local residents can operate their own water systems. El Salvador faces chronic water shortages resulting from delayed and insufficient investment in infrastructure, exacerbated by climate change. One-third of the population is dependent on external water delivery, and an estimated two-thirds of the country's water systems need major capital investment to ensure reliable access to clean drinking water. The COVID-19 pandemic has also exacerbated these challenges, with stay-at-home orders making it harder to travel to a source of clean water, even as hand washing and sanitation became more critical.

Approach and impact: Financing to Azure, a special lending vehicle, has supported loans to small cities and rural communities for investment in new and rehabilitated water pumps, pipelines, and storage tanks. Azure combines financial support with training (engineering guidance and business support) ensuring local residents can reliably operate their own water systems. In response to the COVID-19 pandemic, Azure adopted special measures and provided support to help restore water services to about 10,000 families and 11 community and municipal water service providers. Because the task of collecting clean water often falls to women, and can become a time-consuming chore, the project advances DFC's 2X Women's Initiative to economically empower women to improve their consumption of quality water services. Catholic Relief Services and impact investor Total Impact Capital are also sponsors of the project.42





- ENTREPRENEURSHIP, CONSUMPTION
- CLIMATE ADAPTATION

How EBRD enhances water resilience of women farmers in Morocco

Setting the scene: EBRD provided a sovereign loan to the government of Morocco to enable a switch from unsustainable groundwater abstraction to more sustainable and climate resilient surface water resources, which contribute to the restoration and climate resilience of the Saiss aquifer. The loan will also help reduce climate displacement risks through water management and ecosystem-based adaptation.

Approach and impact: With the support of the Green Climate Fund (GCF) and the EU, the EBRD promotes women's participation in a water-resilient agricultural sector. Even though women comprise nearly 50 per cent of the agricultural labour force in Morocco, women's employment is almost entirely informal. Women's low literacy levels in the Saiss plain (between 56-64 per cent) make them less likely to seize economic opportunities. The project will improve women's access to economic opportunities through sustainable climate-smart agriculture by increasing the number of women-led agri-micro- small and medium-sized enterprises in Saiss, promoting women's engagement and enhancing women farmers' capacity on sustainable farming.⁴³









- CONSUMPTION
- CLIMATE ADAPTATION

How EIB enhances the resilience of JIRAMA in Madagascar and helps reduce women's time poverty

Setting the scene: EIB invested in increasing the production capacity of drinking water plants in Antananarivo, Madagascar, by improving the distribution network and replacing dilapidated pipes. EIB's investment enhanced the resilience of the water utility (JIRAMA) and improved access to drinking water for 2.2 million people.

Approach and impact: Improved access to drinking water is expected to benefit women and girls the most, given they are tasked with collecting water for household use. Reducing women's time poverty by enhancing water supply and sanitation is expected to enable women to allocate time to income-generating activities and improve girls' educational attainments.⁴⁴







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The following resources provide guidance on gender-climate impact measurement for this sector:

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- World Bank, Women in Water Utilities: Breaking Barriers (2019)
- World Bank, Toolkit for Mainstreaming Gender in Water Operations (2016)
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Investing with a gender and climate lens in this sector can help enhance your contribution to the following SDGs:



Achieve gender equality and empower all women and girls



Reduce inequality within and among countries



Ensure availability and sustainable management of water and sanitation for all



Take urgent action to combat climate change and its impacts



Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation

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