

Ways to Gender-Smart Climate Finance: Sustainable agriculture, food and forestry

A gender-smart climate finance investment can be defined as Paris aligned and meeting climate finance and [2X criteria](#).

Investing in agriculture, food and forestry is critical. It provides nutrition for all, as well as jobs and income to 1.1 billion people worldwide.¹ Globally, there is a strong business case for investing in the sector as the demand for food is growing. Currently, nearly 690 million people – or 8.9 per cent of the world population – are hungry. This is an increase of 10 million people in one year and a rise of almost 60 million in five years.²

Pathways to limit global warming to 1.5°C in accordance with the Paris Agreement imply rapid transitions in all sectors, including agriculture, food and forestry. This transition brings in risks for existing farming and forestry practices, as well as challenging existing patterns of land ownership. At the same time, agriculture, food and forestry will face significant challenges from the impacts of climate change. Increasing temperatures reduces yields of many types of crops and the productivity of fisheries and aquaculture. It can also adversely affect livestock. In some regions, changing patterns of rainfall will increase water stress, while extreme weather events such as storms are projected to become more frequent.³ Recent outbreaks of locusts in East Africa, which posed a serious risk to food security, have been linked with the impact of climate change.⁴

Women play important and varied roles in the agriculture, food and forestry sector, and in combatting climate change. We know businesses and investments that perform well on sustainability⁵ and gender diversity⁶ return greater profit. Gender-smart investing therefore makes business sense. Women are agents of change and often spearhead innovation in the sector. As such, there is a significant business and sustainability opportunity to integrate gender considerations into investments that can catalyse transformation and meet food security challenges.

What is a gender-smart climate finance investment?

Put simply, it is an investment that delivers significant climate outcomes and promotes gender equality and women’s empowerment.

A gender-smart climate finance investment can be defined as:

1. Being ‘Paris aligned’ – assessed as consistent with a pathway towards low greenhouse gas (GHG) emissions and climate-resilient 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.
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.

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](#).



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, climate eligibility frameworks, as well as specific impact frameworks (such as environmental social and governance (ESG) considerations, development impact and transition impact).

Click on each section to access relevant thematic information:

1

Why? Applying a gender-smart climate lens to investments in sustainable agriculture, food and forestry • page 2

Explaining the rationale, trends, business and impact drivers, and barriers and opportunities.

2

How to invest with a gender-smart climate lens: sustainable agriculture, food and forestry • page 5

Meet both climate finance and 2X gender finance eligibility.

3

What? Gender-smart climate finance in practice • page 6

Reviewing best practice and 2X gender-smart climate business solutions.



1. Why? Applying a gender-smart climate lens to investments in sustainable agriculture, food and forestry

Transformation is needed to reduce emissions, ensure resilience and meet food security challenges by adopting ‘climate-smart agricultural practices’.

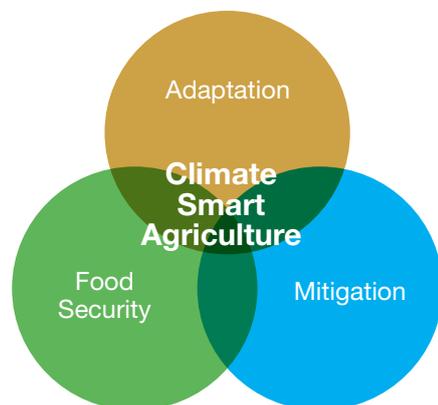
To respond effectively to climate and environmental stresses, and to achieve net-zero emissions by 2050, the agriculture, food and forestry sector needs a fundamental paradigm shift towards more resilient and inclusive, and less emissive, practices. Globally, the agriculture sector generates 19–29 per cent of total GHG emissions⁷ and the emissions result from natural processes, making it one of the hardest sectors to abate. On the other hand, the forestry and land sector also provide a significant sink for CO₂, incorporating it into plants and soils. The transformation in the sector therefore needs to both reduce emissions and increase the carbon sink.

The agriculture, food and forestry sector is also highly vulnerable to climate change impacts and the consequences of climate change are translated into reduced yields, crop failure, income loss and food insecurity for farmers. By 2030, without adaptation, yields could decrease by as much as 30 per cent.⁸ Global temperatures are already 1°C degree warmer compared to pre-industrial levels, and if temperatures remain unchecked, the prevalence of extreme heat stress and other climatic changes is expected to significantly constrain crop seasons (for example by 20 per cent or more in most of sub-Saharan Africa).⁹

Investing with a gender lens will accelerate transformation to a net-zero sector towards 2050.

Climate-smart agriculture (CSA) aims to help transform agricultural systems for development and food security in the context of a changing climate. This is achieved by (a) sustainably increasing agricultural productivity and incomes; (b) adapting and building resilience to climate change; and (c) reducing and/or removing GHG emissions.¹⁰

The ability to adopt and implement CSA practices¹¹ is inextricably linked with reducing gender inequalities, as further described in this note. A gender-responsive approach is set to yield more effective and equitable outcomes and reduce the gender gap in outcomes from climate change activities.¹²



Examples of Climate Smart Agricultural Practices:
Reduced fertiliser use | No deforestation | Sustainable intensification | Resilient crop types



Gender-smart climate actions lead to better business outcomes

Rural populations heavily depend on the agriculture, food and forestry sector for income and livelihoods. Women make up 43 per cent of the agricultural labour force in developing countries, with variations across countries and regions¹³, forming the backbone of agriculture-based economies.¹⁴ Even so, women farmers often start off on an uneven playing field compared to men. Women in agriculture, food, forestry and fisheries receive only about 7 per cent of total agriculture investments worldwide and 5 per cent of agricultural extension services in developing countries.¹⁵ Enabling women to access resources to the same extent as men can increase on-farm yields by 20-30 per cent, leading to better business outcomes for farms.¹⁶ This could raise total agricultural output in developing countries by 2.5–4 per cent.¹⁷ Production gains of this magnitude could reduce the number of hungry people in the world by 12–17 per cent.¹⁸

Climate change risks particularly affect agriculture in poorer areas and are projected to disproportionately affect women because of pre-existing gender inequalities relating to asset ownership, access to information, labour availability, as well as financial and market access. In Zambia, where 78 per cent of small-scale farmers are women, severe droughts and weather patterns have recently cost the country more than US\$ 13.8 billion in crop failures.¹⁹ Understanding and addressing the cause of specific gender-based vulnerabilities in the design of agricultural adaptation interventions is crucial to protecting livelihoods and increasing economic opportunities.

Women are also part of the solution, as active agents of change. Research shows when women are included in leadership and decision-making roles there is a positive impact on natural resource management and adaptation outcomes.²⁰ For instance, a study in India indicated women’s participation in forest projects is associated with a 28 per cent greater probability of forest regeneration.²¹ Through their roles as farmers, entrepreneurs, consumers, and household managers, women present some of the most promising opportunities for investing in climate-resilient agriculture. Investors that opt for gender-smart climate solutions to address gender gaps, and adapting to (and mitigating against) climate change impacts, will in turn increase agricultural productivity.

Box 1. How Lady-Agri coaches supports agri-entrepreneurs through its links with the investment community and applies a climate lens to its activities²²



The LadyAgri Impact Investment Hub supports women agri-entrepreneurs in Africa and Small Island Developing States. Lady-Agri supports agri-businesses that are at least 51 per cent woman-owned, woman-led, and in a value chain traditionally dominated by women producers. Gender-smart agribusinesses that are not women-led but want to include, value and strengthen women in their agri-supply chains as suppliers, employees, or who want to grow their female agri-customer client base, are also supported.

Lady-Agri also applies a climate lens to its activities. It helps agri-entrepreneurs see the importance of social impact, climate resilience, environmental protection, and strive for a circular economy in their use of resources. The aim is to help agribusinesses demonstrate ‘best practices’ in line with the fundamental principles of the EU ‘Green Deal’ supported by the African Union. LadyAgri aims to ensure the LadyAgri Quality label is recognised under African-EU trade agreements and the African Continental Free Trade Agreement – as these trade agreements must work for women.

Box 2. How Root Capital helps women farmers cope with climate change impacts²³



The Wagner Foundation and IKEA Foundation, in partnership with Value for Women, have supported Root Capital through 12 Gender Equity Grants (GEGs) enterprises in Kenya and Peru. Root Capital applies a gender-lens to investing to provide childcare, offer access to finance and savings educational programmes for women, and enhance women farmers’ agricultural practices and skills. Three new GEGs are now launching in Central America to help women adapt to climate change. Businesses will receive support in the intersection of gender and climate change and will prioritise project proposals that support climate-related activities for women.



Business Case



- **Protect returns on investment:** According to the Network for Greening the Financial Sector (NGFS), 17 per cent of financial value is at risk from the physical impacts of climate change²⁴, and the agricultural, food and forestry sector is one of the most vulnerable. Investors and businesses that protect that value through gender-smart adaptation interventions that reduce the risk from climate change impacts are likely to outperform those that don't.
- **Unlock new markets:** Introducing gender-smart and climate-smart practices can unlock new opportunities. For example, carbon credits that measure gender or social co-benefits fetch higher prices on the voluntary carbon market than those which do not.^{25,26}
- **Meet women consumers' needs:** Women-centric business product design or service delivery can increase returns. Companies that deliver agricultural products or services with a gender lens – such as MPesa and DigiFarm – deliver unique value to women farmers, enabling them to better plan for and achieve climate and productivity goals.²⁷

Box 3. Ways to consider a climate lens in gender finance²⁸

There are ways for a gender-smart investment not already meeting climate finance eligibility to still promote climate outcomes indirectly. The investor can raise an investee's climate outcomes and address gender gaps through value-added activities that enhance mitigation, resilience or adaptation skills, and capacities for men and women. This includes improving land and water management practices (agroforestry, terracing, water harvesting structures), soil fertility and crop management practices (composting, conservation agriculture, efficient fertiliser use, improved high-yielding varieties) as well as livestock management practices (improved feed management, livestock species adapted to water scarcity and livestock manure management).

Impact Case



- **Accelerate the transition to net-zero towards 2050:** Feeding nine billion people by 2030 – while protecting the vital natural systems which sustain our planet – will be one of the core challenges of a transition towards a net-zero economy. Enabling more women to adopt climate-smart agricultural practices can catalyse action to reduce GHG emissions and enhance their resilience to climate change. At the same time, investments aiming to reduce GHG emissions can also bring disruptions to livelihoods and women's agricultural activity. Existing gender inequalities (such as women's extensive participation in the agricultural workforce and predominance in low productivity, traditional farming activities) often increase the challenge for women to transition to net-zero practices.
- **Build climate resilience to close the gender gap:** In most emerging markets, gender gaps tend to be exacerbated by climate change and existing vulnerabilities.²⁹ Gender inequalities in accessing and having control over assets, and increased household burdens due to male out-migration, are compounded by reduced food and water access and increased disaster exposure. These factors undermine women's economic opportunities, human capital enhancement, health and wellbeing.³⁰ Gender-smart climate investments can help build resilience for women and strengthen farming and agri-enterprises as they adjust to the impacts of climate change.
- **Drive the shift to more sustainable production:** Women (and indigenous communities in general) can play an important role in environmental presentation, through traditional knowledge and agricultural methods and interest in sustainable farming practices. Women also choose to grow different crops than men, safeguarding biodiversity and food security.³¹ Enabling women to access resources to the same extent as men can increase on-farm yields by 20-30 per cent, leading to better business outcomes for the farms.
- **Create green jobs for women:** Gender-smart climate investments have the potential to create green jobs, which provide higher returns to labour, as compared to conventional agriculture, particularly in the forestry sector.³² Overall, the transition to a net-zero agricultural sector is projected to generate over 200 million full-time jobs by 2050, especially more decent green jobs along the entire food production system.³³ If managed well, women will be able to access opportunities in more employment-intensive green technologies; management and preservation of ecosystems; and green agricultural research and extension services.



2. How to invest with a gender-smart climate lens: sustainable agriculture, food and forestry

A gender-smart climate finance investment can be defined as Paris aligned and meeting climate finance and 2X criteria. This section maps potential investments in the sustainable agriculture, food and forestry sector and explains how to interpret the 2X criteria.

Climate finance eligibility

Climate finance in the agriculture, food and forestry sector will broadly be the finance of activities which reduce GHG emissions, including sequestering carbon dioxide from the atmosphere or build resilience to a known context-specific physical climate risk. Some potential examples include finance for:

- Improved soil fertility and crop management practices:** composting, cover cropping, conservation agriculture, efficient use of fertiliser, improved high-yielding varieties, provision of stress-tolerant varieties, and no-till or minimum tillage.
- Improved land management practices:** agroforestry, terraces and bunds, water harvesting structures and systems, improved agricultural water management, planting pits, and crop residue mulching.
- Improved livestock management:** improved feed management, livestock manure management, destocking, switching to livestock species or breeds that are more adapted to water scarcity and resistant to disease, and pasture management.
- Improved post-harvest technologies:** cold storage technologies and enhanced processing methods to reduce food losses – and women farmers’ workloads – while improving food safety.
- Resource efficiency:** reduced energy use, improvements in irrigation, agricultural waste turned into bio-products such as fertilisers, energy, materials and compounds; conversion of the agri-food waste into new materials, and resource efficiency in aquaculture.
- Afforestation, reforestation and biosphere conservation:** afforestation on non-forested land; reforestation on previously forested land; sustainable forest management activities; and biosphere conservation and restoration projects.

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 on the [2X Challenge Working Group’s ‘Guide to the 2X Criteria’](#).

Examples of investments eligible in the sector:

Women Entrepreneurs

Investment in women-founded or women-owned (51 per cent) and climate finance qualifying agribusiness.

Example: Dedicated adaptation finance loan to a women-founded, women-led company to fund integrated water management for water efficiency, which involves canal lining and micro-irrigation.

Women Leaders

Investment in climate finance qualifying agribusiness companies or funds in which the share of women in senior management stands at 30 per cent, or the share of women on the board or investment committee is at least 30 per cent.

Example: An investor or financial institution (FI) invests in a women-led forestry business producing sustainable timber, whose leadership is composed of all women and the investment committee has a female majority.

Women Employees

Investment in climate finance qualifying agribusiness, in which the share of women in the workforce stands at 30-50 per cent and there is one ‘quality’ indicator beyond compliance.

Example: A biogas and bio-fertiliser production plant that converts hazardous biowaste from the poultry industry to biogas, liquid and solid fertilisers, employs 33 per cent of women workers and has a programme in place to promote women’s career progression.

Women Consumers

Investment in climate finance qualifying agribusiness companies delivering products or services that specifically or disproportionately benefit women, or insurance providers delivering climate risk insurance to women farmers.

Example: A climate risk insurance provider that offers climate risk/crop failure insurance products primarily to female farmers.

Impact via Financial Intermediaries

Investments in climate finance qualifying on-lending facilities stand at 30 per cent of the investor or FI loan proceeds, 30 per cent of the investor or FI’s portfolio, or 30 per cent of companies supported by the fund are agribusiness companies that meet one of the direct criteria.

Example: A dedicated climate finance fund investee meets the indirect criteria by investing 30 per cent of their portfolio in businesses that meet one of the direct 2X criteria. Per best practice, for the leadership and employment criteria, the investor or FI monitors adherence to the percentage thresholds over time, and develops a Gender Action Plan to deliver additional efforts to support women’s career advancement.



3. What? Gender-smart climate finance in practice: agriculture, food and forestry

The following investments by 2X members provide an overview of what a gender-smart climate investment can look like in the agriculture, food and forestry sector.



- ENTREPRENEURSHIP
- CLIMATE ADAPTATION

How ClimADAPT improved women’s access to finance for climate-resilience investments in agriculture

Scene-setting: Tajikistan is among the most climate-vulnerable countries in Central Asia. Climate change could increase soil erosion, land degradation and water scarcity, the preservation of which is all vital for the agriculture sector. Through ClimADAPT, local banks and microfinance institutions in Tajikistan enhance men and women’s access to climate resilience technologies, particularly in the agriculture sector. With support from the European Bank for Reconstruction and Development and the Climate Investment Funds (CIF), women borrowers were encouraged to adopt climate resilience technologies through increased awareness-raising activities and the introduction of dedicated training for local banks.

Approach and impact: ClimADAPT enhanced the gender capacity of local banking staff to better cater to the needs of women customers. Local banks showed flexibility in adapting their collateral requirements for accessing loans and repayment plan terms to meet women’s needs, by accepting the use of jewellery, shop inventories and commercial assets as collateral. Communications materials helped attract more potential women borrowers. About 30 per cent of ClimADAPT borrowers were women, holding 19 per cent of the total amount of loans disbursed (higher than the national average of women borrowers). The overall value of loans accessed by women borrowers showed an increase of five percentage points between 2017 and 2018, rising from 14 per cent to 19 per cent of total loans by the PFIs. This growth was attributed to increased efforts from partner financial institutions (PFIs) to build their gender capacity internally, as well as reach out more actively to women borrowers.



- EMPLOYMENT
- CLIMATE MITIGATION

How Miro Forestry helps transition to a net-zero economy economy by creating jobs and enhancing women’s skills in Ghana and Sierra Leone³⁴

Scene-setting: In 2015, CDC committed to invest US\$ 15 million into Miro Forestry, and has subsequently made loans of US\$ 2 million alongside Finnish DFI Finnfund, the European Investment Bank, and other investors. Miro is a sustainable forestry and timber business with plantations in Ghana and Sierra Leone. The company has prioritised improving women’s access to jobs through targets, mentorship and upskilling.

Approach and impact: Miro’s latest business plan anticipates tripling its workforce, employing more than 4,500 people after 2030. The focus on women’s empowerment followed a strategic decision by the company to address the issue of high absentee levels and attrition rates by focusing on its female employees. At its Ghana site, Miro set a target to increase the number of women in the workforce from 26 per cent to 40 per cent within two years. This included an upskilling programme for women which aimed to provide equal opportunities for training, and increase the hiring of women by providing unconscious bias training to senior management.



References

- 1 ILO, [Agriculture: plantations; other rural sectors](#)
- 2 FAO, [The State of Food Security and Nutrition in the World 2020: Key Messages \(2020\)](#)
- 3 IPCC, [Special Report: Global Warming of 1.5°C - Summary for Policymakers](#)
- 4 Nature climate change, [Climate change and locust outbreak in East Africa \(2020\)](#)
- 5 Harvard Business Review, [Making Sustainability Profitable \(2013\)](#)
- 6 McKinsey, [Delivering through Diversity \(2018\)](#)
- 7 World Bank, [Addressing Food Loss and Waste: A Global Problem with Local Solutions \(2020\)](#)
- 8 Global Commission on Adaptation, [Adapt now: a global call for leadership on climate resilience \(2019\)](#)
- 9 Global Commission on Adaptation, [Adapt now: a global call for leadership on climate resilience \(2019\)](#)
- 10 FAO, [Climate-Smart Agriculture](#)
- 11 Climate-smart agriculture is defined as “an integrated approach to managing landscapes – cropland, livestock, forests and fisheries – that address the inter-linked challenges of food security and climate change”.
- 12 FAO, [A Gender-Responsive Approach to Climate-Smart Agriculture \(2016\)](#)
- 13 World Bank, [Women, Agriculture and Work in Africa](#)
- 14 FAO, [Women in Agriculture: Closing the gender gap for development \(2011\)](#)
- 15 FAO, [\(infographic\) Equal access to resources and power for food security in the face of climate change \(2013\)](#)
- 16 FAO, [Climate Change - When you think farmer – think female! \(2021\)](#)
- 17 FAO, [The State of Food and Agriculture \(2010-11\)](#)
- 18 FAO, [The State of Food and Agriculture \(2010-11\)](#)
- 19 World Economic Forum, [Women lose most from the climate crisis. How can we empower them? \(2020\)](#)
- 20 [Climate Change, Agriculture and Food Security. Supporting women farmers in a changing climate: five policy lessons \(2015\)](#), [Deliver For Good. Invest in Girls and Women to Tackle Climate Change and Conserve the Environment \(2019\)](#)
- 21 UNDP, [Gender and REDD+ Policy Brief 6](#)
- 22 [LadyAgri website](#)
- 23 Root Capital, [How Climate Change Impacts Women Farmers - and What We're Doing About It \(2019\)](#)
- 24 NGFS Report, [Climate Change as a Source of Financial Risk \(2019\)](#)
- 25 Gold Standard, [Carbon Pricing: Why do prices vary by project type?](#)
- 26 [The W+ Standard](#)
- 27 World Economic Forum, [The evidence is in: mobile money can help close the gender gap \(2016\)](#)
- 28 World Bank, [Gender in Agriculture Sourcebook: Gender in Climate-Smart Agriculture \(Module 18, 2015\)](#)
- 29 Science Direct, [Climate change and gender equality in developing states \(2018\)](#)
- 30 Science Direct, [Climate change and gender equality in developing states \(2018\)](#)
- 31 OECD, [Women and SDG 2 – Promoting sustainable agriculture \(2021\)](#)
- 32 World Bank, [Gender in Climate-Smart Agriculture \(2015\)](#)
- 33 FAO, [Decent Rural Employment - Green Jobs](#)
- 34 Draft produced by Kite Insights, content partner of the Gender and Climate Investment Working Group.



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

- [World Bank Group. Gender in Agriculture Sourcebook: Gender in Climate-Smart Agriculture \(Module 18\), 2015](#)
- [CDC Group. Investing for impact in the food and agriculture sector in Africa and South Asia Insights from evidence and our experiences investing in the sector, 2020](#)
- [CDC Group. Gender Sector Brief: How to Apply a Gender Lens to the Evaluation of Food and Agriculture Investments, 2020](#)

SDGs IMPACT  **Investing with a gender and climate lens in this sector can help enhance your contribution to the following SDGs:**



End hunger, achieve food security and improved nutrition, and promote sustainable agriculture



Achieve gender equality and empower all women and girls



Take urgent action to combat climate change and its impacts

2X Climate Finance Taskforce Sector Notes: Investing in Agriculture, Food and Forestry, 2021

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