



Kenya urban farming. © Intellecip

# 'Gender lens': the approach that low-carbon businesses cannot do without

## Key messages

- 1 Gender lens approaches are business models, management and operations that promote the economic empowerment of women.
- 2 Entirely new climate-smart technologies and innovations in production systems are emerging in response to the climate emergency. Other climate-smart technologies, such as solar photovoltaic (PV) systems, are already established at scale and are further extending their market penetration in developing countries.
- 3 New evidence from the Gender Equality in a Low Carbon World (GLOW) programme makes the case that climate-smart businesses innovating in this low-carbon, climate-resilient space require a gender lens approach to meet their full potential for economic sustainability and positive climate impact.
- 4 This policy brief is for entrepreneurs of low-carbon, climate-resilient businesses in developing countries and for the public sector financiers and impact investors positioned to support them.
- 5 The brief summarises findings from small and medium enterprises (SMEs) innovating low-carbon, climate-resilient technologies and practices in agriculture, aquaculture and related value chains.
- 6 It illustrates how SME leaders can strengthen their capacity for and application of gender lens approaches as a way of consolidating business viability and sustainability, and impact investors have a role in deepening this capacity.
- 7 Gender lens and women's empowerment approaches are not just fair – they are successful strategies for climate-smart businesses.

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## The gender lens

The term 'gender lens' is used widely in the private sector to describe business structures, policies and measures that, in varying combinations:

- ▶ identify differential barriers women face and ways to help reduce them
- ▶ enable women to be highly effective as private-sector leaders and entrepreneurs
- ▶ ensure that women secure decent work as employees or can participate successfully in higher-value economic activities
- ▶ enable the benefits of private sector entities to be accessible and meaningful to women.

## SMEs in the spotlight for climate action

The Paris Agreement (2015) marked a shift in global political resolve to tackle climate change. Ten years on, countries' actions are still far short of what is needed to meet its temperature goal of 1.5°C. Nonetheless, governments' policy signals and private sector strategies are increasingly moving to separate economic growth from greenhouse gas emissions.

The impetus to innovate climate-smart solutions is growing among small and medium enterprises (SMEs), which make up the vast majority of private sector entities in developing countries.

This is, in part, demonstrated by the Gender Equality in a Low Carbon World (GLOW) programme (2021–24). GLOW comprised 12 action research projects in 17 developing countries, as well as a Knowledge Hub.<sup>1</sup>

All projects, to some extent, looked at how to reduce or avoid emissions. Many GLOW initiatives worked directly with SMEs and producers' associations to scale up emergent climate technologies and service delivery models. These included:<sup>2</sup>

- ▶ integrated Multi-Trophic Aquaculture for seaweeds and finfish<sup>3</sup>
- ▶ closed-loop production systems using aquaponics and hydroponics
- ▶ black soldier fly farming as a means of generating high-potency fertiliser from organic waste.

GLOW also looked at how to increase the uptake by women producers and entrepreneurs of well-proven, established low-carbon technologies such as solar photovoltaic (PV) systems to power irrigation; and how to improve women farmers' use of technology in supply chains to meet export market requirements, e.g. European Union requirements for traceability of products.

Woman marketing tomatoes. © Omotayo Tajudeen | Pexels





Seaweed entrepreneur at work, Blue Empowerment Project, Kenya. © Fiona Makayoto | ACTS

GLOW projects worked with these innovative businesses to strengthen their gender lens and apply a range of mutually reinforcing women empowerment measures:<sup>4</sup>

- ▶ identifying the gender-specific barriers women face to becoming successful producers, contractors and/or employees and acting to reduce those structural barriers
- ▶ instituting or strengthening gender-inclusive human resources policies
- ▶ increasing the number of women in leadership positions and as a proportion of management roles
- ▶ cultivating a workplace culture where people hold non-discriminatory, women-empowering beliefs and behaviours
- ▶ promoting changes in unconscious biases, social norms and behaviours which affect the participation of women and promoting

ways in which all stakeholders can contribute to strengthening the capacities of women in their value chains, including through regular gender-focused training and capacity building of employees

- ▶ diversifying business activities to better incorporate women, including targeting women as supply chain producers and customers
- ▶ providing access and training to women employees/contractors to a) strengthen their proficiency in using climate-smart technologies, b) strengthen their leadership, business management and financial literacy skills, and c) increase their use of digital platforms for procuring climate-smart inputs and learning about climate-smart production practices.

## Results: applying a gender lens to climate-smart business

Applying the gender lens and women empowerment approaches above have resulted in the following benefits for SMEs in Africa and Latin America:

### Accelerated learning and effectiveness in deploying climate-smart technologies<sup>5</sup>

Intentional targeting and capacity development of women in Integrated Multi-Trophic Aquaculture for seaweeds and finfish in coastal Kenya has improved business results and sustainability. Specifically, the Blue Empowerment Project found:

“Women and men often have different roles, knowledge and skills in fisheries and aquaculture, which can be leveraged to improve project design, implementation and management. For instance, women are traditionally involved in the processing and marketing segments of aquaculture in many societies, while men are more involved in the cultivation and harvesting aspects. By recognising and integrating these gender-specific skills and roles, the project has been able to enhance efficiency, productivity and social equity.”<sup>6</sup>



Woman entrepreneur with finished products from the seaweed business, Kenya.  
© Fiona Makayoto | ACTS

Also in Kenya, the enterprise Aquarech Ltd has introduced the use of caged fish production and improved fish management. Aquarech finds that intentionally empowering women by supporting their participation in production and marketing has “the potential to increase revenues for businesses in the sector through higher reliability of supply from contracted farmers, who are primarily women, and better repayment rates in case of credit provision offered.”<sup>7</sup> The system uses digital technology to monitor fish food provision, water flow and temperature, and it presents this information to fish farmers via the app. As an integrated, climate-smart production system, it aims to:

- ▶ provide precision farming techniques that eliminate overfeeding or underfeeding and help lessen the impact of feed on the ecological systems within the water bodies
- ▶ make feeding more efficient and reduce siltation in ponds, helping maintain ecological balance (particularly oxygen levels) in the ponds
- ▶ offer fish farmers the ability to monitor production cycles remotely, if desired.

The company has actively targeted women for participation in the supply chain and has contracted five women’s groups (with 15–20 women farmers in each group) for fish production. In addition to growing the business

effectively, women’s empowerment delivers social benefits. The Aquarech app also enables women traders to procure fish formally and safely. It reduces their vulnerability to the pervasive, degrading and harmful norms of ‘fish for sex’ in the area, by which women traders feel forced to offer sexual exchange for receiving fish from male fisherfolk to sell. The app supports women traders in running fish distribution outlets that directly serve low-income communities, increasing their access to fish protein sources, with 60–80% of individual buyers being women.<sup>8,9</sup>

In Central America, measures to enable women producers to track their carbon footprints comprise an important strategy for future-proofing market access. The European Union, a key market for Central American cocoa and other produce, is introducing new laws for traceability: from 2025, firms importing to the EU will need to demonstrate the environmental integrity of their imports.<sup>10</sup> In Nicaragua, a large exporter of cocoa helped develop an app for their suppliers, mainly smallholder farmers, to keep track of agricultural input use and to demonstrate compliance with low-carbon requirements. A vital part of this strategy has been gender-responsive outreach and training of women smallholders in the supply chain. Without a gender lens approach, such firms will not be poised to access vital international markets in the near future.

## Improved agricultural yields

Women make up a significant proportion of farmers in all developing countries and typically have lower productivity because of gender barriers. Targeting gender barriers through intentional women's empowerment approaches, while applying climate-resilient, low-carbon technology and practice, is a catalyst for productivity and stable, sustainable yields in the sector.

Social norms typically constrain women's control of agricultural decisions, as well as their access to agricultural inputs and productive assets such as land. An FAO study suggests that agricultural productivity in Sub-Saharan Africa could rise by 20% if women had equal access to inputs and land.<sup>11</sup>

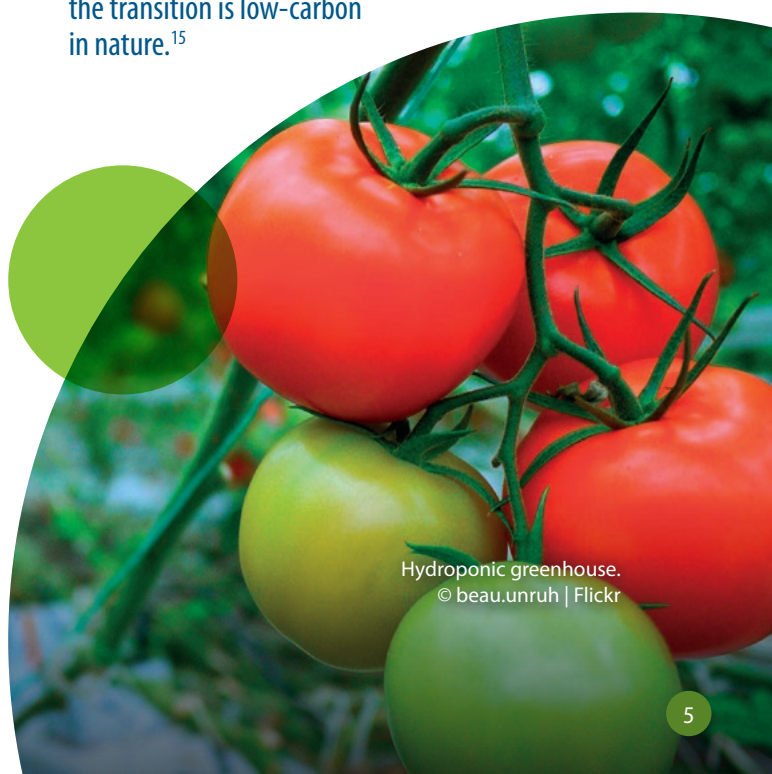
Giving women access to agricultural decisions and low-carbon inputs and technologies has shown decisive results, as in the examples that follow.

In Senegal, closing the energy access gap is a matter of national priority and is promoted in policy. Women horticulturalists who have adopted solar PV power to mechanise irrigation in Senegal now achieve irrigation in 7.03 hours per day compared to 7.70 hours previously – releasing women for other economically productive activities (or for rest and household tasks, improving their work-life balance).<sup>12</sup> Financially, solar adoption has a positive and significant impact on women horticulturalists' agricultural income and irrigation costs. Women horticulturalists who use solar technologies increased their agricultural income by more than 200,000 FCFA (\$335) and reduced their irrigation costs by around 125,000 FCFA (\$209), compared to women horticulturalists who do not use solar irrigation technologies. Adopting solar-powered irrigation has positive effects on the productivity and profitability of operations. It is worth noting, though, that women's incomes remain lower overall compared to male solar PV users.<sup>13</sup>

Aquaponics and hydroponics have attracted great interest from women farmers in East Africa because these technologies are well suited to vegetable growing – in which women are majority actors. Hydroponics has relatively high start-up costs; women's disadvantaged access to information and finance are barriers to uptake. However, in Rwanda, the social enterprise Green Harvest has intentionally facilitated access to technology for women and youth groups in the community. It also facilitated finance access and preferential loan schemes for women to afford the technology. The yields and climate resilience of the hydroponics systems are impressive. According to the Rwandan Ministry of Agriculture, hydroponics can help farmers harvest up to 500 tons of crops per hectare, a significant increase compared to traditional methods. Hydroponics uses up to 90% less water than traditional farming methods, with a 30–50% faster plant growth rate.<sup>14</sup>



Women farmers continue to have lower rates of agricultural productivity than men, not because women are less efficient farmers, but because they do not have equitable access to agricultural inputs, land rights and product markets. By providing gender-transformative solutions to women stakeholders, private sector enterprises enable improved productivity and economic empowerment for women consumers, beneficiaries, employees, value chain partners, etc., while ensuring that the transition is low-carbon in nature.<sup>15</sup>



Hydroponic greenhouse.  
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## Selective state support can enable women's entry into low-carbon sectors

The experiences of a women's economic cooperative in Guinea highlight the role of selective, public-sector investment to lower financial barriers for women's entry into solar PV-irrigated agriculture, which in turn drives entrepreneurial growth. The all-women Tangama Market Gardening Union obtained subsidised support to access solar PV-powered irrigation. As a result, its members' agricultural incomes increased and their workloads decreased, permitting them to reallocate time to other tasks. The project *Energy transition for women's economic empowerment across the horticultural value chain in a post-Covid context in Guinea and Senegal* concluded that low-interest loans and direct subsidies can play a crucial part in gender-equitable approaches and as small business accelerators.<sup>16</sup> Notably, international development cooperation was also crucial in this case. International public support, as well as national public finance, can therefore also be important in unlocking private sector potential.

## Improved last-mile delivery<sup>17</sup>

Intelcap is a business advisory body that supported eight SMEs across East Africa to apply a gender lens to their low-carbon businesses. Five of these SMEs developed new products and services to target women customers, distributors and suppliers. All eight revamped their marketing strategy and customer delivery processes to better appeal to women farmers, via both online and offline channels. These gender lens measures enabled the businesses to reach significant untapped markets. For example, Griincom Kenya, a business recycling organic wastes into fertilisers, has created and executed an action plan for last-mile delivery, which involved acquiring a delivery van and hiring female farmers as part-time sales agents. This action plan is on track to increase product uptake by 30% in a year.<sup>18</sup>

Hydroponic vegetable growing.  
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## Crowding in further impact investment

What is good for business also attracts further investment: 71% of the SMEs supported by Intelcap reported attracting impact investors, meaning investors keen on funding businesses that address social and economic challenges in their communities. The gender-focused investment readiness, pitch preparation and investor networking support provided by the program assisted SMEs to raise a total of US\$1.8 million of funding for eight companies over the 3-year programme period.<sup>19</sup>

## Conclusions

GLOW research found that adopting a gender lens is fundamental for low-carbon enterprises to achieve their desired profitability and growth objectives and to encourage a fulfilled and motivated workforce.

Entrepreneurs and managers of climate-smart businesses should consider gender lens and women's empowerment approaches as critical enablers for effective business processes and results.

Based on results from the GLOW programme, the authors advise impact investors to adopt a gender lens investment approach. At heart, it is associated with business sustainability, but also delivers broader spillover social benefits, as our case studies illustrate.

Read the full synthesis of the GLOW programme's findings at: <https://just-transitions.cdkn.org>





Hydroponic crops. © nuraghies | Freepik

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## About GLOW

Gender Equality in a Low Carbon World (GLOW), 2021–24, is a three-year programme funded by the International Development Research Centre (IDRC) of Canada. It supports research on promising women-led solutions for green economies and climate action.

Twelve action research projects were selected following an open, competitive call, based on their relevance to local challenges and clear plans to influence policies and actions.

The research projects span 17 countries across South and Southeast Asia, the Middle East and North Africa, Sub-Saharan Africa and Central and South America. They are exploring innovations for women's economic empowerment and climate action in agriculture, forestry, land restoration and tourism. The projects are led by local research experts, who are working hand-in-hand with the people who can implement solutions.

Please visit: <https://glowprogramme.org>



Fish marketing, Kenya. ©ILO

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