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# Policy brief

## Building climate-resilient, female-led businesses in Kenya



THE LONDON SCHOOL  
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### Summary

- Female-led small and medium-sized enterprises (SMEs) make important contributions to economic growth and community resilience in Sub-Saharan Africa.
- Extreme weather conditions such as high temperatures and floods particularly affect female entrepreneurs due to socioeconomic, political and cultural vulnerabilities.
- Research in Laikipia, Kenya has revealed challenges facing female-led SMEs include limited finance, infrastructure and social services; businesses being small in size and vulnerable to risk; gendered responsibilities taking time away from businesses; and dependency on male cooperation for business operations.
- Female entrepreneurs in Laikipia are coping with climate change by diversifying their businesses and forming groups to tackle its impacts collectively.
- The adaptive capacity of female entrepreneurs can be enhanced through a supportive business-enabling environment, promoted by local and national government and other stakeholders such as financial institutions and non-governmental organisations.
- This can be achieved by strengthening women's access to gender-sensitive business and adaptation training, overcoming gendered barriers to business finance and financial inclusion, and strengthening market infrastructure and business networks for women.
- Addressing these gaps for women within the business environment will enable female-led enterprises in Kenya and beyond to deliver on their potential to contribute to broader resilience-building within households and communities in various geographical settings.

**Policy briefs** provide analysis on topical issues, presenting specific recommendations to inform ongoing policy debates. Drawing on the Grantham Research Institute's expertise, they summarise either our research findings or the state of knowledge about a particular issue.

This policy brief has been written by **Dorice Agol, Kate Gannon, Elizabeth Sprout, Elena Castellano, Shaikh Eskander, Declan Conway and Mamadou Diop.**

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## The importance of building climate-resilient, female-led businesses

In Sub-Saharan Africa, small and medium-sized enterprises (SMEs) make significant contributions to the economy (e.g. Polas et al., 2022; Manzoor et al., 2021). In Kenya, female-led SMEs play important roles in the agricultural and livestock sectors, and contribute across the value chain, from the provision of farm inputs to cultivation, production, processing, sales and marketing (Mkuna et al., 2021; Liru, 2020). These activities support local economies and contribute to poverty reduction at the household and community levels (Ameso et al., 2018). Consequently, female-led businesses in the livestock and agricultural sector have a lot of potential to deliver broader climate resilience for their communities and families (e.g. Crick et al., 2018; Atela et al., 2018).

Unfortunately, these businesses face additional exposure to climate risks and greater vulnerabilities, due to socioeconomic, political and cultural factors (e.g. Bryson, 1981; Rahman, 2008; Atela et al., 2018). For example, a number of studies show that compared with men, more women tend to direct their business income to key household needs, such as food, clothing, education and healthcare (e.g. Dedehouanou and Araar, 2020; Gannon et al., 2022). Consequently, many female entrepreneurs have limited funds to build climate-resilient businesses.

This policy brief draws on research undertaken in Laikipia County in central Kenya (see Box 1 below) under the [Women Entrepreneurs in Climate Change Adaptation \(WECCA\)](#) project. We identify key barriers that prevent female entrepreneurs from building climate-resilient businesses in the agricultural and livestock sectors in Laikipia. Using this case study, we underscore the challenges faced by female entrepreneurs in Africa in the face of climate change and make policy recommendations that may support these entrepreneurs to build strong, climate-resilient businesses across Sub-Saharan Africa and beyond.

## Barriers to adaptation and climate resilience for female-led businesses in Laikipia

In Laikipia, female-led businesses in the agriculture and livestock sectors were found to be highly exposed to climate risks such as flooding, high temperatures and strong winds. Compared with male-led businesses, these enterprises are small in scale,<sup>1</sup> making them much more vulnerable to the impacts of climate change – high temperatures during long periods of drought and extreme cold and frost during the rainy season. This is because most operate with poor quality infrastructure and facilities, such as cold poultry houses with poor heating and makeshift market stalls with no weather-proof materials.

Most female-led businesses were found to be confined to specific geographical spaces at times of climate risk, whereas male-led businesses were flexible, operating in various business locations. Within the pastoralist communities, female livestock traders tend to operate in rural settings, selling mostly small animals such as goats and sheep. During prolonged drought, these female entrepreneurs are unable to migrate in search of pasture and water for their animals, due to commitments in the home, whereas men are more able to migrate to different areas in and outside Laikipia.

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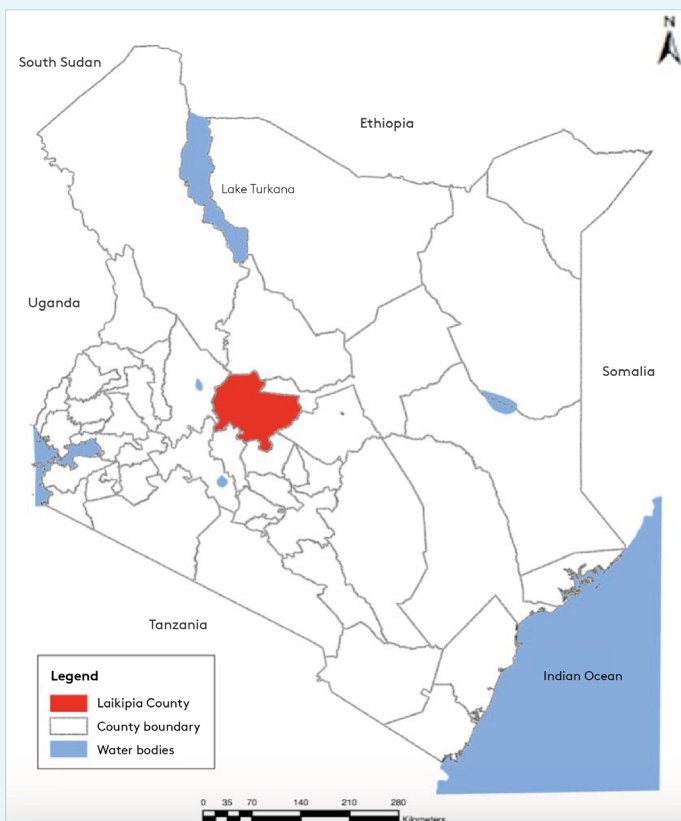
1. These include selling agricultural produce, poultry and rabbit farming, beekeeping, livestock trading and veterinary service provision.

## Box 1. Laikipia County, Kenya

Laikipia County (around 8,700 km<sup>2</sup>) is situated in the Rift Valley region of Kenya and lies between 1,140m and 2,400m above sea level. Laikipia comprises three administrative sub-counties: Laikipia East, Laikipia North and Laikipia West. It borders counties including Samburu, Isiolo, Meru, Nyeri, Nyandarua, Nakuru and Baringo. Its current population is just over half a million, the majority of whom live in rural areas. The main economic activities are pastoralism and agro-pastoralism, mixed farming, ranching, tourism and trade.

Mean annual rainfall in Laikipia ranges between 40cm in the north and 120cm in the southwest. Mean annual temperature ranges from 16–26°C. The main vegetation types are grassland, shrublands, bushland, woodland and dry forests.

Laikipia was chosen as a case study because it is predominantly arid and semi-arid land and is one of the counties in Kenya with a mix of two extreme weather conditions (cold and hot) and is affected by different climate change impacts. With an emerging female-led business environment, Laikipia is an interesting place to study the impacts of climate change on female entrepreneurs. For example, female livestock traders are emerging in North Laikipia even though this has been a predominantly male-led business in the past.



Map of Kenya showing Laikipia County  
Source: Karema (2015)

“With an emerging female-led business environment, Laikipia is an interesting place to study the impacts of climate change on female entrepreneurs.”



Livestock trading in Laikipia  
Photo: Dorice Agol

## Reasons for heightened vulnerability

Below we discuss in more detail why female-led businesses are much more vulnerable to climate change than their male-led equivalents.

**Limited access to financial resources greatly affects female-led businesses.** This is a key barrier due to factors including women having a lack of collateral and technical capacity to secure loans, unsustainable businesses with small profit margins and limited financial literacy. Female business owners interviewed said they do not have land, housing or vehicles and thus are unable to secure loans to upscale their business operations and/or invest in adaptation strategies or climate-resilient technologies (e.g. renewable energy). Rural-based female entrepreneurs who are often confined to their homes because of their domestic and caring duties are unable to access information on financial resources, due to their more limited business networks. These limitations affect women much more than men.

**Women experience an additional workload during extreme weather conditions.** During periods of prolonged drought, women have an extra burden of having to walk long distances for hours looking for water for households and livestock.<sup>2</sup> Female entrepreneurs forgo business activities even during normal weather conditions because the expectation is that women and girls should undertake household chores, care for children, look after elderly and sick family members and so on. Such responsibilities limit women's time to engage with productive business activities. With this extra burden, female traders are unable to travel outside Laikipia to access external livestock markets.<sup>3</sup> In addition, walking in remote areas in search of water and pasture exposes women more than men to personal risks, such as wild animal attacks, dangerous terrain (e.g. deep valleys), assault and rape.

**Poor access to facilities, infrastructure, markets and social services exacerbates vulnerabilities.** This poor access increases the vulnerability of female-led SMEs to business disruption during extreme weather conditions. For example, female entrepreneurs have been unable to access trading centres in remote markets such as Doldol and Ilpolei during extreme floods in recent rainy seasons. In contrast, their male counterparts can access these markets using motorbikes.

**Limited access to information and mobile phones is a significant problem for female-led businesses in rural areas.** Market prices and weather forecasts are often disseminated via the phone, online or on paper. Many female traders say they prefer verbal communication, partly because they have limited time to look for such information and read. Thus, many female traders in remote areas have very little or no access to climate or market information, and this is a barrier to accessing business opportunities. Without this information, female livestock traders are commonly discriminated against in the marketplace in such ways that they are unable to negotiate better livestock prices, particularly in the dry season, when livestock quality is poor. Consequently, opportunities for trading good quality animals are more limited for women than for men.

**Female entrepreneurs often depend on men for business operations.** Female entrepreneurs were found to be dependent on men, including husbands and other family, relatives, friends or colleagues, to perform certain business tasks, e.g. applying for loans and credit, accessing



Chicken keeping in Laikipia  
Photo: David Maina

2. Livestock watering is a significant responsibility for females within pastoralist communities. During prolonged drought women spend long days looking for water and pasture for small animals such as goats and sheep as men migrate to far-off areas with large animals such as cattle and camels in search of the same resources.

3. These markets include Isiolo, Nyeri, Thika and Nairobi, with a distance of up to 200km from Laikipia.



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insurance, accessing information and using technology (e.g. digital marketing), negotiating prices, and arranging logistics (e.g. procurement and transporting of goods). In flood-prone areas, many local markets are inaccessible and female traders said they rely on their male counterparts or acquaintances to help them access other markets. Although male traders help them with trading in difficult circumstances like these, some female entrepreneurs said that at times they are exploited by men who act as middlemen and offer them poor prices. Their physical absence at the market means these female traders are unable to directly negotiate prices.

### **Pathways to climate resilience for female-led businesses**

We have identified through our interviews two key coping mechanisms that help female entrepreneurs to minimise the challenges described above and to enhance climate resilience within their businesses in Laikipia. These are: formation of women's groups to promote collective action against climate change and diversifying business operations.

#### **Forming women's groups**

Across Laikipia, women-led groups were found to be good platforms for promoting collective action against the impacts of climate change. They do this through joint activities such as fodder production, building business networks, on-farm soil and water conservation,<sup>4</sup> using energy-saving technologies,<sup>5</sup> marketing livestock and so on. These activities are helping build resilience in various ways. For example, those who build business networks benefit from connecting with diverse traders, can find new markets and negotiate good prices. Groups involved with fodder production can provide food for their livestock while small agri-business owners who operate climate-smart agriculture (e.g. planting drought-resistant crops, and applying soil and water conservation techniques) are better at coping with prolonged drought and high temperatures. In remote areas, livestock trader groups that conduct joint marketing and sales strategies (e.g. destocking by selling during drought) are better off at coping with prolonged drought as well as price negotiations.

Women's groups promote social learning (i.e. learning by doing) and by being in a group, members have better opportunities to access financial loans, grants and business networks, acquire new business skills (e.g. bookkeeping and accounting) and use resilience-building technology (e.g. rainwater harvesting and energy saving techniques). For example, some groups have successfully secured loans from Laikipia County Enterprise Fund (LCEF) to diversify their businesses.

However, achieving these benefits depends on aspects such as leadership, group commitment, trust, technical and financial capacity and social connections. Individuals' level of commitment to joint activities was low in some groups due to poor leadership, high expectations not being met, a lack of trust and the need to engage with home and household chores. For example, certain individuals had joined a group with a high expectation of receiving grants from the Government and/or NGOs. When these expectations were not fulfilled, they lost interest and did not continue to participate in joint activities. In addition, due to poor financial record management,<sup>6</sup> shaped by poor financial literacy, many women-led groups in remote rural areas remain ineligible for credit and small grants.

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**“Women's groups promote social learning and by being in a group, members have better opportunities to access financial loans and grants and business networks.”**

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4. E.g. use of mulches, water recycling.

5. Includes use of energy saving stoves.

6. E.g. a lack of a good credit history, no track record of winning grants, or absence of business plans.

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## Diversifying business ventures and switching between businesses

To minimise climate risks, some female entrepreneurs are diversifying their businesses by engaging with multiple income-generating activities. In pastoralist communities, female livestock traders are engaged with honey production, aloe vera farming and jewellery-making. In agricultural areas, they are cultivating fast-growing vegetables such as lettuce, cucumber and capsicum peppers to sell in high-end restaurants and green grocers. Other female-led diverse businesses include a combination of small grocery shops, selling animal feed, providing agro-veterinary services and selling vehicle spare parts. Diversifying businesses is seen as a good coping mechanism during extreme weather conditions when markets are poor and trading activities limited.

## Policy recommendations

Based on our research findings, we provide the following recommendations to different levels of government in Kenya and other relevant stakeholders. These recommendations are also relevant beyond Laikipia and Kenya.

### 1. Provide gender-sensitive infrastructure and facilities in marketplaces

- The county government of Laikipia should provide better quality market stalls and services (e.g. water and electricity) that are resilient to extreme climate events such as flooding, to promote female-led enterprises.
- The county and national governments should promote climate-resilient policies for female-led businesses, e.g. through better and safer road networks, and market information systems for women's business operations in various settings.
- The county government of Laikipia in partnership with the national government should support the private sector to develop gender-sensitive services, information, products and technologies (e.g. cheap insurance policies). For example, the county government should facilitate training so women's groups can become competent knowledge brokers and be able to disseminate information on market prices and weather forecasts.
- The national government should support mobile network operators (e.g. Safaricom) to expand mobile phone networks into remote areas to improve communication and information about access to markets for women to command fair prices.

### 2. Provide favourable credit facilities for sustainable businesses

- National and county government policies should emphasise female entrepreneurs as a priority target group for support, given the potential of women to deliver broader climate resilience for their communities and families.
- Financial institutions should create diverse and affordable credit facilities to suit different female entrepreneurs. Examples are lower loan interest rates and third-party collateral (e.g. use of a partner's land title deed; flexible loan repayments).

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- The county government of Laikipia should award female-led green enterprises (e.g. organic farming, solar energy) in the form of technical training, equipment and small grants to encourage climate-resilient businesses.
  - National and county governments, financial institutions and non-governmental organisations (NGOs) should strengthen and support locally based financial lending platforms such as village saving and loans associations (VSLAs) and women’s groups for female entrepreneurs. These local platforms can be strengthened through systematic and tailored training on financial literacy and management.

### **3. Support networks and platforms for female-led businesses**

- The county governments of Laikipia, Isiolo and Nakuru should create gender-sensitive business networks that are managed by female entrepreneurs by training them on how to create strong business linkages (e.g. between small-scale and large-scale businesses; rural-based female traders and urban-based traders).
- The county government of Laikipia should organise regular gender-sensitive market fairs that promote business opportunities and technologies that appeal to women (e.g. in terms of time, energy and/or cost saving) operating in diverse contexts.
- The county government of Laikipia should create special market days, times or trading spaces for female entrepreneurs to trade and negotiate market prices, without necessarily involving male middlemen.

### **4. Promote financial literacy for small and medium-sized businesses**

- The county government of Laikipia in partnership with financial institutions and NGOs should provide gender-sensitive training sessions on financial and business management on topics such as borrowing, investment and saving.
- These training sessions should have flexible timetables designed to suit different situations, considering factors such as literacy, timing, location and cost to access. For example, training rural-based female livestock traders should be done during school holidays, when children can help their mothers with household chores.
- The county government of Laikipia should strengthen policies that promote free training on the use of Information, Communication and Technology (ICT) for female entrepreneurs (e.g. digital marketing apps).

## **Conclusion**

Supporting female entrepreneurs to build sustainable and climate-resilient businesses will require a combination of strategies, activities and collaborative efforts by different levels of government, NGOs, the private sector and local communities. When attempting to support resilient businesses for female entrepreneurs in the agricultural and livestock sectors, it is important to focus on key pathways that help women entrepreneurs to cope with climate change, including strengthening women’s groups and supporting businesses to diversify.

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