

**Learning from international experience: Improving institutions for climate-resilient MSMEs in Mongolia**

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Published

2024-03-25

Version

Version of Record (VoR)

DOI

[10.25904/1912/5204](https://doi.org/10.25904/1912/5204)

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# Learning from international experience: Improving institutions for climate-resilient MSMEs in Mongolia

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## ABOUT THIS PUBLICATION

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As part of the Australian Awards Fellowship, we hereby present three policy briefs that were developed by the Research Fellows from Mongolia with the Griffith University, Deakin University and the University of Southern Queensland Academics. We build the three series from one to the next, starting with understanding the challenges and best practices for MSMEs to become climate-resilient in Mongolia followed by learning from international experiences to improve institutions for climate-resilient MSMEs in Mongolia and lastly, we present how to build capacity through climate-resilient development and gender inclusive entrepreneurship in Mongolia. Below we present our part 2 of the series.

The findings, interpretations and conclusions expressed in this paper are those of the author(s) and should not be attributed to Griffith University or affiliated organisations.

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To be cited as: Dashzeveg, L, Elberel, T, Khaliunbat, B, Tsenden, P, Sarker, T, Hales R and Shah, D, *Learning from international experience: Improving institutions for climate-resilient MSMEs in Mongolia*, Griffith Asia Institute, Queensland, Australia, DOI: 10.25904/1912/5204.

Cover image: Two Mongolian men prepare bricks for construction of a house in Tsalgar, Mongolia. (Shutterstock)

## Introduction

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The purpose of the policy brief is to present policy options for formulating and implementing effective policies that enhance the resilience of Small and Medium Enterprises (SMEs) in the context of climate change. Highlighting the distinctive challenges encountered by Mongolian SMEs due to climate-induced disruptions and natural hazards, this policy brief underscores the vital role these enterprises play in the nation's economic advancement. Through evidence-based recommendations, the policy brief endeavours to steer policymakers in establishing an enabling environment for sustainable and climate-smart growth of SMEs, contributing to a robust and resilient business landscape. Therefore, in this policy brief, we explore the following key questions.

- What is the current state of climate change impacts on SMEs in Mongolia?
- How adequate are current legislative and policy measures related to climate change adaptation in supporting SMEs in Mongolia, and what are the gaps and areas for improvement?
- What are the barriers hindering the development of climate-resilient SMEs in Mongolia?
- What are the international good practices and successful initiatives in other countries supporting climate-resilient SMEs, and how can Mongolia draw upon these experiences?
- How can policy integration enhance climate resilience in SMEs in Mongolia?

By addressing these key questions, the policy brief aims to guide the development of a robust and effective policy framework that empowers SMEs in Mongolia that can thrive in the face of climate change while contributing positively to environmental sustainability and economic growth in Mongolia.

This paper consists of four sections including context analysis, barriers and opportunities, policy options, and conclusions. In the Context chapter, we delve into a comprehensive analysis of the context surrounding SMEs in Mongolia. Chapter two explores the specific barriers hindering the development of climate-resilient SMEs in Mongolia. The third chapter marks a pivotal turn as we propose a strategic policy framework tailored for building climate-resilient SMEs in Mongolia. In the concluding chapter, we summarise our main findings, emphasising the importance of addressing the identified challenges. We provide concrete policy recommendations, urging policymakers to consider our proposed framework and take decisive steps toward fostering a resilient and sustainable environment for SMEs in Mongolia.

## Context

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As the world emerges from the devastating impacts of the COVID-19 pandemic, a new global challenge looms larger than ever before: climate change. The 1992 United Nations Framework Convention on Climate Change (UNFCCC) laid the foundation for international cooperation on climate change, with a focus on mitigation. The 2007 IPCC Fourth Assessment Report in particular underscored the need for adaptation efforts. Climate-induced shifts in temperature, precipitation patterns, and the increased



frequency of extreme weather events have disrupted traditional livelihoods, placing additional burdens on the nation's economic development. Mongolia, characterised by its vast landscapes and predominantly nomadic rural population, faces a unique set of challenges in the context of climate change.

In the last 80 years, Mongolia has witnessed a significant increase in its average annual temperature, registering a rise of 2.2 degrees. This warming trend, 2.5 times more intense than the global average, renders Mongolia particularly susceptible to climate change. Furthermore, the frequency of natural hazards, erratic and heavy rainfall, strong wind, heavy snow, flood, hail/ weather events linked to climate change has doubled<sup>1</sup> in each decade over the past 20 years compared to the preceding one. Small and Medium Enterprises (SMEs),<sup>2</sup> which form the backbone<sup>3</sup> of Mongolia's economy, are particularly vulnerable to these climatic changes.

SMEs are businesses characterised by a modest workforce and production scale, notable productivity, flexible production technology, and market competitiveness. The SMEs in the industries and services sector employ a substantial portion of the workforce, playing a pivotal role in contributing to the economy. The products, services, technologies, and productivity levels exhibited by SMEs are often regarded as a reflection of the country's development.<sup>4</sup> As of the end of 2020, recent research from the NSC reveals that Mongolia has a total of 64,252 thousand SMEs. This sector plays a crucial role, contributing to 17.8 percent of the national GDP and accounting for 2.4 percent of the products exported.<sup>5</sup> In 2017, a public-private consultation in Ulaanbaatar discussed "Insurance for small and medium-sized businesses," involving Asian countries. Key discussions centred on mitigating the impacts of rising climate change and natural disasters, which have increased significantly in recent years. The issues raised, including drought, extreme summer heat, and adverse climate conditions, are crucial for Mongolian businessmen. These factors negatively affect agricultural production, causing substantial harm to the operations of small and medium-sized producers.

Based on the baseline research findings from the project "Insuring Micro, Small, and Medium-Sized Businesses with Blockchain Technology," conducted by MIRIM Consultant LLC in 2022, it was revealed that Mongolian business owners regarded risks arising from natural disasters as the most significant threat. Despite this, 83.5 percent of SME owners stated that their businesses lacked insurance coverage. These statistics underscore the imperative for a policy framework designed to systematically safeguard the business landscape for SMEs and mitigate and adapt risks and potential damages.

Climate change adaptation on the other hand has been reflected to a particular extent in legislative, policy, and strategic documents such as the Mongolian National Security Concept (2010), National Action Program on Climate Change (NAPCC, 2011), Green Development Policy (2014) as well as recently approved "Vision-2050" Mongolia's long-term development policy. However, there is a lack of legislation and regulations on climate change at the national level, and there is no particular definition of climate change adaptation and methods to assess vulnerability, risk, and impacts of climate change stated in the current legal documents.<sup>6</sup> Presently, there's

a deficiency in climate change policy documents tailored specifically for SMEs. Targeted adaptation measures are imperative to ensure long-term sustainability and resilience. To this end, the development of adaptive strategies to ensure long-term sustainability and a comprehensive approach to addressing environmental, social, and economic aspects for sustainable development in the face of climate change is crucial in Mongolia.

## Barriers to building climate resilient SMEs in Mongolia

- **Fragmented governance structure:** Mongolia's governance structure for climate adaptation is often fragmented, with multiple government agencies and departments involved in different aspects of adaptation planning and implementation. Mongolia has established several government bodies and ministries involved in climate change adaptation, including the Ministry of Environment and Tourism, the Ministry of Energy, the Ministry of Food, Agriculture, and Light Industry, and the Ministry of Construction and Urban Development, among others. Each of these agencies may have its own climate adaptation initiatives and priorities. This fragmentation can lead to coordination challenges and inefficiencies in resource allocation. Reports from government agencies involved in adaptation efforts indicate challenges in coordinating their activities and aligning their strategies.
- **Limited interagency cooperation:** There is a need for stronger cooperation and communication among government agencies and departments responsible for climate adaptation. Several government bodies and ministries, including the Ministry of Environment and Tourism, the Ministry of Energy, the Ministry of Food, Agriculture, and Light Industry, and the Ministry of Construction and Urban Development were involved in climate change adaptation. Each of these agencies may have its own climate adaptation initiatives and priorities. Often, these entities work in isolation, which can result in overlapping efforts or gaps in addressing key climate risks. Ensuring the participation of relevant stakeholders, including local communities, in adaptation planning and decision-making processes can be challenging.
- **Capacity constraints:** According to a study by Mongolia's National Adaptation Program in collaboration with the United Nations Development Programme (UNDP), Mongolia faces a shortage of experts in climate change adaptation and related fields. This shortage of technical expertise hampers the country's ability to effectively plan and implement climate adaptation measures. Government agencies and local institutions may lack the necessary capacity and expertise to develop and implement climate adaptation strategies effectively. Capacity-building efforts are essential to address this barrier. Moreover, Mongolia's budget allocation for climate adaptation projects and capacity-building within government institutions is relatively low. This limited financial support can result in institutional weaknesses, including outdated infrastructure and insufficient human resources, further constraining adaptation efforts.

- **Technology gaps and knowledge deficiencies:** In Mongolia, environmental sustainability faces challenges due to technology gaps and knowledge deficiencies. Despite certain agencies possessing valuable data on meteorology and pasture quality, insufficient technology impedes comprehensive data analysis. The narrative emphasises the urgent need to increase meteorological stations, fortify hazard warning systems, and invest in capacity building to enhance data collection. Simultaneously, knowledge gaps among herders and decision-makers hinder effective adaptation strategies. Internationally, a lack of policy-based research on ecosystem degradation underscores the necessity for enhanced collaboration, emphasising the importance of addressing knowledge gaps for informed decision-making in Mongolia's dynamic landscapes.<sup>7</sup>

## Opportunities to shift towards climate-resilient SMEs

### Significance of the integrated approach to climate-resilient development

Establishing a policy framework for building climate-resilient small and medium-sized enterprises (SMEs) is crucial for several reasons. According to the International Finance Corporation (IFC), SMEs are particularly vulnerable to climate change impacts, and a robust policy framework helps mitigate risks.<sup>8</sup> Evidence suggests that countries with effective climate resilience policies for SMEs experience lower economic losses during climate-related events.<sup>9</sup> For instance, a study by the Global Facility for Disaster Reduction and Recovery (GFDRR) found that proactive policies and investments in climate-resilient infrastructure significantly reduce the economic toll of disasters on SMEs.<sup>10</sup> Moreover, the United Nations Development Programme (UNDP) notes that SMEs, when equipped with supportive policies, can play a pivotal role in climate change adaptation and mitigation, fostering both economic and environmental sustainability.<sup>11</sup> The International Labour Organization (ILO) conducts systematic reviews that offer valuable insights into the positive economic and environmental outcomes associated with small and medium-sized enterprises (SMEs) embracing climate-resilient practices.<sup>12</sup> This research strengthens the argument in favour of implementing comprehensive policy frameworks to support SMEs in their adoption of strategies that enhance resilience to climate-related challenges. Moreover, implementing a comprehensive policy framework is essential for ensuring SMEs contribute positively to climate resilience, economic growth, and the achievement of sustainable development goals.<sup>13</sup>

## Lessons from best practices for institutional setup

### Climate-resilient SMEs policy frameworks

#### International good practices: Policy frameworks for SMEs

While many developing countries have implemented broader climate change and sustainability policies that

indirectly benefit SMEs by promoting climate resilience, there are fewer examples of specific, standalone policy frameworks exclusively dedicated to climate-resilient SME programs in developing countries. In particular, some countries share similarities with Mongolia, facing similar challenges in terms of climate vulnerability, economic structure, and reliance on traditional practices. These countries may offer insights into potential policy approaches and lessons learned can be used to design and implement a policy framework for building climate-resilient SMEs in Mongolia.

Lessons from international best practices showed that there are several international programs and initiatives that offer valuable capacity-building opportunities for women-owned MSMEs looking to engage in climate-resilient and sustainable business practices. They cover a wide range of sectors and provide training, mentorship, networking, and access to financing to support women entrepreneurs in their climate-related endeavours. For instance,

- Women Economic Empowerment (WEE) programme by UN
- SheTrades Initiative by International Trade Centre
- Becoming a climate-resilient SME by International Trade Center
- Greenpreneurs program by Global Green Growth Institute
- The Women In Renewable Energy (WIRE) Network
- Gender and climate finance training by UNDP

These are important to support women-owned MSMEs who want to take the next step towards becoming climate-resilient. More importantly as identified in the above literature review it is critical to support and train women who are the most affected due to climate change.

### 1. Vietnam

The Vietnamese government has implemented various initiatives to enhance the resilience of SMEs. These initiatives include providing financial support, facilitating access to credit, offering capacity-building programs, and encouraging SMEs to adopt sustainable and climate-resilient practices. It includes the following main actions:

- **Financial support:** The government has established various financial support programs, including low-interest loans and grants, specifically aimed at SMEs. These programs provide SMEs with the necessary capital to invest in climate-resilient technologies and practices. For instance, the Vietnam Bank for Social Policies offers preferential loans to SMEs for green and clean energy projects.<sup>14</sup>
- **Facilitating access to credit:** The government has worked to improve SMEs' access to credit by partnering with financial institutions and creating a more supportive regulatory environment. This makes it easier for SMEs to obtain loans and financial resources for climate-resilient projects. For example, the Small and Medium Enterprise Development Fund (SMEDF)<sup>15</sup> provides credit guarantees to SMEs to help them secure loans for climate adaptation measures.

- **Capacity-building programs:** Capacity-building programs are organised to equip SMEs with the knowledge and skills needed to understand and address climate risks. The Vietnam Association of Small and Medium Enterprises (VINASME),<sup>16</sup> in collaboration with the government, offers training programs on climate resilience and sustainable business practices. These programs cover topics like energy efficiency, waste management, and disaster preparedness.
- **Encouraging sustainable practices:** The Vietnamese government has encouraged SMEs to adopt sustainable and climate-resilient practices through various incentives and initiatives. For example, there are tax incentives and preferential policies for SMEs that implement eco-friendly and energy-efficient technologies. Additionally, the government supports sustainable agricultural practices, which are especially vital for rural SMEs.
- **Policies promoting innovation:** The government has implemented policies to promote innovation within SMEs. Innovation can lead to the development and adoption of new technologies that enhance climate resilience. For example, the National Technology Innovation Fund (NATIF) provides financial support to SMEs for research and development of innovative solutions related to climate change adaptation and mitigation.
- **Technological adoption:** The government encourages SMEs to adopt green and clean technologies that improve resilience. Initiatives like the Vietnam Energy Efficiency Program (VNEEP) promote energy-efficient technologies, which can help SMEs reduce their carbon footprint and energy costs while enhancing climate resilience.
- **Green growth promotion:** Vietnam's *Green Growth Strategy*,<sup>17</sup> which aims to transition towards a low-carbon and sustainable economy, supports SMEs in aligning their operations with green growth principles. SMEs engaged in renewable energy, environmental protection, and green manufacturing benefit from this policy direction.

The Vietnamese government's comprehensive approach to enhancing SME resilience includes a combination of financial incentives, capacity-building programs, and supportive policies that contribute to climate adaptation and mitigation. These efforts recognise the critical role of SMEs in the country's economic development and their potential to address climate change challenges.

## 2. Jamaica

The Jamaican government, in collaboration with international organisations, has initiated projects aimed at supporting climate-resilient small and medium-sized enterprises (SMEs), particularly in sectors vulnerable to climate change impacts, such as tourism and agriculture.<sup>18</sup> These projects encompass a range of activities designed to enhance SME resilience and sustainability. It includes the following main activities:

- **Funding support:** The Jamaican government, often with support from international partners like the United Nations Development Programme (UNDP)<sup>19</sup> and the World Bank, provides financial support to SMEs in the form of grants, low-interest loans, or subsidies. These funds are directed toward climate-

resilient practices and technologies, such as the adoption of renewable energy solutions, improved agricultural techniques, and disaster preparedness measures.

- **Training and capacity building:** These projects offer training programs and capacity-building initiatives tailored to the specific needs of SMEs. These training programs may cover topics like climate risk assessment, adaptation strategies, sustainable agricultural practices, and energy efficiency. SME owners and employees receive guidance on how to better prepare for and respond to climate-related challenges.
- **Access to climate resilience information:** Climate-resilient SMEs require access to accurate and up-to-date information on climate change and its impacts. The Jamaican government, often in partnership with international organisations, ensures that SMEs have access to climate resilience information, weather forecasts, and early warning systems. This information equips SMEs with the knowledge needed to make informed decisions and plan for climate-related risks.

The success of these initiatives is measured by their impact on SME financial stability, the adoption of climate-resilient practices, reduced climate-related losses, job creation, and overall economic growth in the target sectors. Continuous monitoring and evaluation are essential to gauge the effectiveness and refine these projects as needed.

## 3. South Africa

South Africa has established the Climate Smart Agriculture Program, which includes support for SMEs in the agricultural sector to adopt climate-resilient practices.<sup>20</sup> This program promotes sustainable farming techniques and offers financial incentives to enhance the resilience of SMEs in the agricultural value chain. The Climate Smart Agriculture Program in South Africa is designed to promote sustainable and climate-resilient practices within the agricultural sector. The following main activities are planned to be undertaken:

- **Support for SMEs:** The program recognises the importance of SMEs in the agricultural value chain and offers targeted support to these enterprises. SMEs often play a significant role in agricultural production, processing, and distribution, making their resilience essential for the overall sector's sustainability.
- **Adoption of climate-resilient practices:** The program encourages SMEs in the agricultural sector to adopt climate-resilient practices. These practices may include the implementation of drought-tolerant crop varieties, water-efficient irrigation systems, and soil conservation techniques. The aim is to make SMEs better equipped to withstand climate-related challenges, such as changing rainfall patterns and extreme weather events.
- **Financial incentives:** To facilitate the adoption of climate-resilient practices, the program provides financial incentives to SMEs. These incentives may come in the form of grants, subsidies, or low-interest loans. Access to financial resources is crucial for SMEs to invest in the necessary infrastructure and technologies that can enhance their climate resilience.

- **Training and capacity building:** Alongside financial incentives, the program may offer training and capacity-building initiatives to SMEs. These programs aim to equip SMEs with the knowledge and skills required to implement sustainable and climate-resilient farming techniques. Training could cover topics such as sustainable land management, pest and disease control, and climate-smart crop rotation.
- **Climate information and early warning systems:** Enhancing access to climate information and early warning systems is also a vital component of the program. SMEs need accurate and timely information on climate conditions to make informed decisions. Early warnings about weather events can help SMEs prepare for and mitigate potential risks.
- **Measuring impact:** The effectiveness of the Climate Smart Agriculture Program can be assessed through various metrics. These may include the adoption rate of climate-resilient practices among SMEs, the reduction in climate-related losses, improvements in crop yields, and the overall economic sustainability of SMEs in the agricultural sector.
- **Long-term resilience:** Ultimately, the program aims to build long-term resilience in the agricultural sector. By supporting SMEs in the adoption of climate-smart practices, South Africa can better ensure food security, sustainable agricultural development, and the well-being of communities dependent on agriculture.
- **Capacity-building initiatives:** Capacity building is a critical component of these programs. SMEs are offered training programs and workshops designed to enhance their knowledge and skills. These capacity-building initiatives cover a range of topics, including sustainable forest management, forest conservation, and the mitigation of climate-related risks.
- **Sustainable forest management practices:** The programs encourage SMEs to adopt sustainable forest management practices. This may include the promotion of reduced-impact logging techniques, responsible harvesting methods, and reforestation efforts. By implementing sustainable practices, SMEs can help conserve forest resources, reduce deforestation, and limit their environmental footprint.
- **Climate resilience measures:** Climate resilience is a key focus of these initiatives. SMEs are supported in developing strategies and practices that enable them to better withstand climate-related challenges. This may involve measures such as the establishment of firebreaks, the protection of forested areas from drought and wildfires, and the integration of climate-smart agriculture techniques in agroforestry practices.
- **Monitoring and evaluation:** The effectiveness of these programs is monitored through various metrics. This includes assessing the extent to which SMEs have adopted sustainable practices, reduced deforestation, improved their environmental impact, and enhanced their resilience to climate change impacts. The monitoring and evaluation process helps identify areas for improvement and informs future policy decisions.

The Climate Smart Agriculture Program in South Africa exemplifies a comprehensive approach to enhancing climate resilience among SMEs in the agricultural sector. By combining financial incentives, training, climate information, and sustainable practices, the program contributes to a more resilient and sustainable agricultural industry in the face of climate change challenges. Continuous evaluation and adaptation of the program are essential to ensure its long-term effectiveness.

#### 4. Indonesia

Indonesia's Ministry of Environment and Forestry has recognised the importance of promoting sustainability and climate resilience in the forestry sector, which is crucial for both environmental conservation and the livelihoods of local communities. The government has launched initiatives to encourage small and medium-sized enterprises (SMEs) in this sector to adopt sustainable practices and enhance their resilience to climate change impacts.<sup>21</sup> It includes the following main activities:

- **Financial incentives:** The Ministry of Environment and Forestry in Indonesia provides financial incentives to SMEs in the forestry sector. These incentives may include grants, subsidies, or low-interest loans. These funds are directed toward supporting SMEs in adopting sustainable and climate-resilient practices. For example, SMEs may receive financial assistance to implement reforestation projects, sustainable logging practices, or the restoration of degraded forest areas.
- **Technical support:** SMEs often require technical expertise and guidance to transition to sustainable and climate-resilient practices. Government programs offer technical support, which may involve the provision of expert advice, training, and access to technical resources. For instance, SMEs engaged in forest management may receive guidance on sustainable logging techniques and the protection of biodiversity.

The programs initiated by the Ministry of Environment and Forestry in Indonesia reflect a comprehensive approach to promoting sustainability and climate resilience in the forestry sector. By providing financial incentives, technical support, and capacity-building initiatives, the government aims to support SMEs in their transition to more environmentally friendly and climate-resilient practices. This not only benefits the forestry sector but also contributes to Indonesia's broader environmental and climate goals.

While developing countries generally implement broader climate and sustainability policies that indirectly benefit SMEs, some nations have taken specific initiatives for climate-resilient SME programs. In Vietnam, the government recognises the importance of supporting SMEs in adapting to climate change through financial aid, training, and technical assistance, particularly in vulnerable sectors like agriculture. South Africa's Climate Smart Agriculture Program focuses on supporting SMEs in the agricultural sector, offering incentives for adopting climate-resilient practices. Similarly, Indonesia's Ministry of Environment and Forestry encourages climate-resilient practices in SMEs within the forestry sector through financial incentives, technical support, and capacity building. Jamaica collaborates with international organisations, launching projects to fund and train SMEs in tourism and agriculture for climate resilience.

Despite the absence of standalone policy frameworks in some cases, these countries often integrate SME support into broader climate adaptation and sustainability strategies, demonstrating holistic approaches. Moreover, sector-specific initiatives, like those targeting agriculture and tourism, indirectly benefit a wide range of SMEs by promoting climate resilience in key economic sectors.



In these countries, policies often involve a combination of financial incentives, capacity-building programs, and support for sustainable and climate-resilient practices in SMEs. While these countries may not perfectly mirror Mongolia's context, their efforts in promoting climate resilience in SMEs, particularly in agriculture, can offer insights and potential policy frameworks for Mongolia to consider. Mongolia can draw inspiration from these approaches, tailoring them to its unique context and challenges while considering the importance of community engagement and adaptation strategies.

## Towards a policy framework for building climate resilient SMEs in Mongolia

Mongolia is highly susceptible to the impacts of climate change, experiencing extreme weather events, water scarcity, and changes in precipitation patterns. Moreover, Mongolia's economy is closely tied to climate-sensitive sectors such as agriculture, herding, and natural resource-based industries. SMEs operating in these sectors are particularly vulnerable to climate variability, making it imperative to have policies that enhance their resilience. Moreover, the government could encourage SMEs to play a significant part in slowing down environmental damage and climate change as well.

To develop a policy framework for building climate-resilient SMEs in Mongolia, the following key aspects can be considered, drawing on evidence and effective approaches mentioned in previous sections:

- **Development and integration of policies:** By embedding climate resilience in broader policy frameworks, Mongolia can create a conducive environment for sustainable and climate-smart SME growth. Especially, the SME Agency of Mongolia could take leading role in integrating climate resilience considerations into further SME policies and strategies and ensuring that climate adaptation becomes a mainstream component of SME development.
- **Initiatives tailored to specific sectors:** Tailoring interventions to the specific needs of sectors prevalent in Mongolia will ensure a more targeted and effective approach to climate adaptation for SMEs. Implementing sector-specific initiatives that target key industries in Mongolia, such as agriculture and tourism, with a focus on building climate resilience not only will support SMEs in their transition to more environmentally friendly and climate-resilient practices but also contribute to broader environmental and climate goals.
- **Enhancing information accessibility and sharing:** Improving access to timely and accurate information will empower SMEs to make informed decisions and proactively address climate risks. Therefore, The SME Agency of Mongolia could establish a platform or network for information sharing on climate resilience, providing SMEs with access to relevant data, weather forecasts, and best practices.

- **Financial assistance structures:** Mongolia can address the financial constraints faced by SMEs by providing targeted support, enabling them to invest in technologies and strategies for climate adaptation. Therefore, SME Fund could be dedicated and used for providing concessional loans, grants, or subsidies to SMEs for implementing climate-resilient practices. Moreover, encouraging SMEs to adhere to international standards and regulations so that standards can be rendered more accessible to smaller businesses. As a result, SMEs can access to green finance and standards.
- **Capacity-building programs:** Building internal capacity within SMEs will empower them to make informed decisions, adopt sustainable practices, and effectively respond to climate-related challenges. Therefore, Hence, it is crucial to develop and implement capacity-building programs that specifically target enhancing the knowledge and skills of SME owners and employees in understanding and addressing climate risks.
- **Public-private collaboration:** Public-private partnerships can leverage resources, expertise, and knowledge, facilitating a comprehensive and coordinated approach to building resilience. Therefore, the SME Agency of Mongolia needs to focus on fostering collaboration between the government (relevant sectoral authorities), private sector (Chamber of Commerce, etc.), and international organisations (ILO, UNDP, EBRD etc.) to create a supportive ecosystem for climate-resilient SMEs.
- **Technology adoption and innovation:** Encouraging the use of innovative technologies will enhance the overall resilience of SMEs, making them better equipped to withstand climate-related impacts. Hence, promoting the adoption of climate-resilient technologies among SMEs by offering incentives, technical support, and collaboration opportunities for innovation should be prioritised to speed up the progress of climate action. Moreover, advanced technologies, including climate modelling and monitoring systems, provide valuable data for informed decision-making, helping policymakers and SMEs anticipate and respond to climate-related challenges.

To sum up, the Government of Mongolia needs to develop policy frameworks for building climate-resilient small and medium-sized enterprises (SMEs) that help SMEs adapt and mitigate these climate-related risks by providing financial support, access to technology, and capacity-building to help SMEs overcome these constraints. The most effective approach may involve a combination of nationwide, sectoral, and SME-specific initiatives, leveraging the advantages of each level while mitigating their respective disadvantages. Balancing centralisation with flexibility, fostering collaboration, and ensuring inclusivity in the design and implementation of initiatives are key factors for success.



## Conclusions and recommendations

As Mongolia grapples with the profound challenges posed by climate change, particularly in the wake of a warming trend 2.5 times more intense than the global average, the vulnerability of its Small and Medium Enterprises (SMEs) becomes a critical concern. Climate-induced disruptions, coupled with natural hazards, significantly impact traditional livelihoods, imposing economic burdens and necessitating strategic interventions. While climate change adaptation has been mentioned in various legislative and policy documents, a specific and comprehensive framework tailored for SMEs is conspicuously absent.

The fragility of SMEs is exacerbated by fragmented governance, limited interagency cooperation, capacity constraints, and data gaps, creating formidable barriers to building climate-resilient SMEs. While there is no one-size-fits-all solution, the SME Agency of Mongolia should work closely with their SMEs to better understand the challenges they face domestically, with a view to opting for policies that empower firms of all sizes without compromising national climate agendas and missing targets

A policy framework for building climate-resilient SMEs in Mongolia should be holistic, addressing financial, educational, technological, and informational needs. By prioritising climate resilience, Mongolia can foster a resilient SME sector that not only adapts to climate challenges but also contributes to sustainable development and economic growth. The successful implementation of such a framework will require collaboration, adaptability, and a commitment to long-term sustainability.

Given the concerns stemming from climate change, it is important to investigate whether SMEs could adapt to climate change and capable enough to overcome upcoming climate risks. Therefore, conducting nationwide studies on the impact of climate change on SMEs from a climate perspective is critical to take policy action to avoid extreme risks and build resilience among SMEs.

The recommendations outlined below aim to create a holistic and supportive ecosystem for climate-resilient SMEs in Mongolia, addressing specific challenges faced by businesses in climate-sensitive sectors.

### RECOMMENDATION 1

#### **Mainstreaming climate resilience policies for SME growth**

Mongolia should prioritise the development and integration of climate resilience policies within broader frameworks, with the SME Agency taking a leading role. This approach will create a conducive environment for sustainable SME growth, ensuring that climate adaptation becomes a mainstream component of SME development.

### RECOMMENDATION 2

#### **Sector-specific climate adaptation for key industries**

Tailoring climate adaptation interventions to the specific needs of key sectors in Mongolia, such as agriculture and tourism, is crucial. Implementing sector-specific initiatives will not only support SMEs in transitioning to climate-resilient practices but also contribute to broader environmental and climate goals.

### RECOMMENDATION 3

#### **Information sharing platform for climate resilience**

The SME Agency of Mongolia should establish a platform for information sharing on climate resilience. This initiative will empower SMEs by providing them with timely and accurate data, weather forecasts, and best practices, enabling informed decision-making in addressing climate risks.

### RECOMMENDATION 4

#### **Establishing a dedicated SME fund for climate resilience**

Mongolia can address financial constraints faced by SMEs by creating a dedicated SME Fund. This fund can provide concessional loans, grants, or subsidies, encouraging SMEs to adopt climate-resilient practices. Additionally, incentivising adherence to international standards can open avenues for green finance.

### RECOMMENDATION 5

#### **Capacity building for climate risk management in SMEs**

To empower SMEs to make informed decisions and adopt sustainable practices, the government should develop and implement capacity-building programs. These programs should focus on enhancing the knowledge and skills of SME owners and employees in understanding and addressing climate risks, thereby building internal capacity within SMEs.

To summarise, the proposed measures above encompass policy integration, sectoral focus, information empowerment, financial support, and skill enhancement, ensuring a comprehensive approach to building resilience against climate-related risks.

## Notes and references

1. The press, "Disasters caused by climate change have DOUBLED in the last 20 years" 2019, Available at: <https://ikon.mn/opinion/1nno>
2. UN in Mongolia, "Findings from online and other research on the impact of the COVID-19 pandemic on business" 2021, Available at: <https://covidmongolia.mn/23-0-93-0-0.aspx>
3. The World Bank, "New Opportunities to Increase Private Sector Productivity and Economic Diversification in Mongolia - World Bank Report" 2022, Available at: <https://www.worldbank.org/mn/news/press-release/2022/12/13/new-opportunities-for-mongolia-to-strengthen-private-sector-productivity-diversify-economy-world-bank-report>
4. NSO, "Contribution of small and medium industry to economic development" 2020, Available at: [https://www2.1212.mn/BookLibraryDownload.ashx?url=Small\\_and\\_Medium\\_Enterprise\\_-\\_2020.pdf&ln=Mn](https://www2.1212.mn/BookLibraryDownload.ashx?url=Small_and_Medium_Enterprise_-_2020.pdf&ln=Mn)
5. The press, "SMEs produce 17.8 percent of GDP and 2.4 percent of export products" 2021, Available at: <https://www.montsame.mn/mn/read/278528>
6. Development of legal and policy framework for national adaptation plan (nap) process and its strategic roadmap for stakeholder engagement, 2021 .  
<https://ndc.met.gov.mn/public/storage/e-resources/December2021/ATvOwowpeXkt8s5Xkylx.pdf>
7. International Finance Corporation, "Climate Investment Opportunities in Emerging Markets An IFC Analysis", 2020, Available at: <https://www.worldbank.org/en/news/feature/2020/05/07/>
8. The World Bank, "Shock Waves: Managing the Impacts of Climate Change on Poverty," 2015, Available at: <https://www.worldbank.org/en/topic/climatechange/brief/shock-waves-managing-the-impacts-of-climate-change-on-poverty-background-papers>
9. United Nations Department of Economic and Social Affairs, "Economics of Disaster Risk Reduction and Resilience", Available at: [https://www.un.org/development/desa/dpad/wp-content/uploads/sites/45/publication/PB\\_139.pdf](https://www.un.org/development/desa/dpad/wp-content/uploads/sites/45/publication/PB_139.pdf)
10. United Nations Department of Economic and Social Affairs, "Micro-, Small and Medium-sized Enterprises (MSMEs)", Available at: <https://sdgs.un.org/topics/capacity-development/msmes>
11. International Labour Organization, "Greening Enterprises: Transforming processes and workplaces", Available at: [https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms\\_861384.pdf](https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_861384.pdf)
12. United Nations Department of Economic and Social Affairs, "Micro-, Small and Medium-sized Enterprises (MSMEs) and their role in achieving the Sustainable Development Goals", Available at: [https://sdgs.un.org/sites/default/files/2020-07/MSMEs\\_and\\_SDGs.pdf](https://sdgs.un.org/sites/default/files/2020-07/MSMEs_and_SDGs.pdf)
13. Vietnam Plus, 2023, "Banks join in promoting green credit", Available at: <https://en.vietnamplus.vn/banks-join-in-promoting-green-credit/267430.vnp>
14. AED, SMEs Development Fund (SMEDF), Available at: <http://we.business.gov.vn/en-us/Finance/smes-development-fund-smedf-2>
15. Tu Phuong Nguyen. (2014). Small and medium business speaks up in Vietnam. East Asia Forum, Available at: <https://www.eastasiaforum.org/2014/02/27/small-and-medium-business-speaks-up-in-vietnam/>.
16. Viet Nam Government Portal. (2021. 02 01). National Green Growth Strategy for 2021-2030 adopted. <https://moit.gov.vn/en/news/energy/national-green-growth-strategy-for-2021-2030-adopted.html>
17. Growth Inducement Programme Planning Institute of Jamaica, 2021. Emerging industries in Jamaica. Working paper, [https://www.pioj.gov.jm/wp-content/uploads/2021/06/GIP-Emerging-Industries-Working-Paper\\_FINAL.pdf](https://www.pioj.gov.jm/wp-content/uploads/2021/06/GIP-Emerging-Industries-Working-Paper_FINAL.pdf)
18. UNDP & Jamaican Government. (2014). Standard Basic Assistance Agreement <https://www.undp.org/jamaica/publications/undp-jamaican-government-standard-basic-assistance-agreement>
19. Switch Africa Green. (2019). Guidelines for Implementing Climate Smart Agriculture Strategy in South Africa. Available at: <https://www.unep.org/switchafricagreen/events/policy-activity/guidelines-implementing-climate-smart-agriculture-strategy-south-africa>
20. World Bank. (2023. 04 06). Protecting Forests and Improving Livelihoods in Indonesia. Available at: <https://www.worldbank.org/en/news/feature/2023/04/04/protecting-forests-and-improving-livelihoods-in-indonesia>



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