



BRINGING
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POLICIES
TO LIFE

INCLUSIVE GREEN FINANCE POLICIES FOR MSMEs



SURVEY REPORT



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ACKNOWLEDGMENTS

This Survey Report is a product of SME Finance (SMEF) Working Group and its members, and the Inclusive Green Finance workstream.

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The Inclusive Green Finance workstream is part of the International Climate Initiative (IKI), supported by the German Federal Ministry of the Environment, Nature Conservation and Nuclear Safety (BMU).

ACRONYMS AND ABBREVIATIONS

AFI	Alliance for Financial Inclusion
AFIC	Apma Financial Investment Center
AINA	National Agency of Agricultural Insurers
BB	Bangladesh Bank
BDT	Bangladeshi Taka
BSP	Bangko Sentral ng Pilipinas
BCRA	Central Bank of the Argentine Republic
CBJ	Central Bank of Jordan
CFI	Centre for Financial Inclusion
DRM	Disaster Risk Management
DNA	Designated National Authorities
ESRM	Environmental and Social Risk Management
FDB	Fijian Development Bank
GEF	Global Environment Facility
GPf	AFI Global Policy Forum
GHGs	Greenhouse gases
IEA	International Energy Agency
IGF	Inclusive Green Finance
IGFWG	Inclusive Green Finance Working Group

INTRODUCTION

Climate change poses a significant risk to the performance, competitiveness and sustainability of micro, small and medium enterprises (MSMEs). The increased frequency and intensity of extreme weather events and slow-onset disasters threaten business operations from machinery and inventory damage to the disruption of MSME business models in other ways.

Climate-sensitive sectors such as fisheries, agriculture and food processing are typically the most severely affected. As such, MSMEs in particular do not have the financial means to recover, adapt or mitigate against these shocks, especially when they are severe or occur frequently. This may lead to long-term disruption of operations or even bankruptcy, which carry negative consequences for the national economy.¹

MSMEs are the backbone of developing countries and play a vital role in providing employment, goods and services.

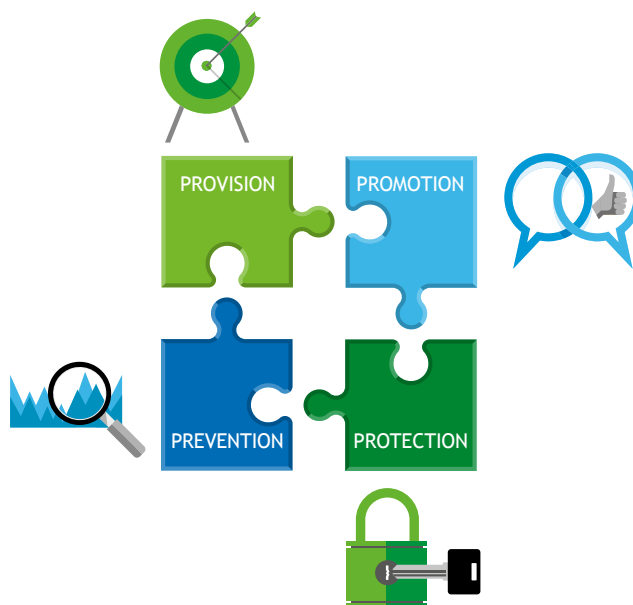
They are often hubs of entrepreneurship and innovation in these countries.² They also have an important role to play in global value chains. While MSMEs can be victims of climate change, they can also contribute to the problem and as such, can play an important role in lowering global emissions of greenhouse gases (GHGs) in the long run. Although it needs to be acknowledged that MSMEs in developing countries are not the main emitters of GHGs, they can still contribute meaningfully to climate change mitigation. According to the International Energy Agency (IEA), they consume 13 percent of global energy, so by implementing cost-effective energy efficiency measures, they could reduce their usage by 30 percent, an amount equivalent to the annual energy consumption of Japan and Korea.³

In India, one of the largest and fastest growing economies of the world, the combined total of MSMEs are estimated to contribute to 70 percent of total industrial pollution.⁴ Medium and long-term investment in greener technologies for green growth in rapidly developing economies can potentially have massive positive implications for the future. It is also recognised that there might be business opportunities for MSMEs linked to mitigation or adaptation of climate change, which are to be further explored.

INCLUSIVE GREEN FINANCE

While financial regulators have taken a variety of approaches to addressing climate change, existing policy tools and techniques for low-income populations and MSMEs can be refined and repurposed with a green focus. This will allow policymakers to act swiftly while at the same time lay the groundwork for innovative policies that may require more preparation. A specific policy framework has been identified by the Alliance for Financial Inclusion (AFI) network presented in the special report *Inclusive Green Finance: A Survey of the Policy Landscape*.⁵

The policies below are presented with this framework in mind. Specifically, the policies are categorized by the 4Ps framework of inclusive green finance: Provision, Promotion, Protection and Prevention. All policies under the 4Ps either catalyse financial services from the private sector or use financial infrastructure to deploy finance for climate action.



- ¹ Weather and climate risks are only a part of the risks for MSMEs, which also include market risks, lack of access to finance, etc.
- ² Schaer, Caroline & Kuruppu, Natasha. United Nations Environment Programme & Technical University of Denmark (UNEP DTU). 2018/b. 2018. Private-sector action in adaptation: Perspectives on the role of micro, small and medium size enterprises. Available at: https://www.researchgate.net/publication/324654215_Private-sector_action_in_adaptationPerspectives_on_the_role_of_micro_small_and_medium_size_enterprises
- ³ IEA (2015): Accelerating Energy Efficiency in Small and Medium Enterprises. Powering SMEs to catalyse growth. Available at: https://www.iea.org/publications/freepublications/publication/SME_2015.pdf. [Accessed 30 October 2018].
- ⁴ Raj, S. & Raja, K.V.S. (2017): Impacts of MSMEs on Environment - An Analysis, in: *International Journal of Research in Management & Business Studies*, vol. 4, no. 3.
- ⁵ *Inclusive Green Finance: A Survey of the Landscape*. Alliance for Financial Inclusion. 2019. Kuala Lumpur. Available at: https://www.afi-global.org/sites/default/files/publications/2019-08/AFI_IGF_report_AW_01.08.19_digital.pdf

AFI SME FINANCE WORKING GROUP - SUBGROUP ON INCLUSIVE GREEN FINANCE

DEFINITION OF MSMEs

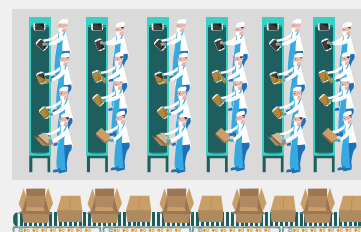
The term “MSMEs”⁶ encompasses a highly diverse group of enterprises. While most existing literature and development projects use a blanket classification, this is not always helpful due to the large diversity among firms in this category. They range from small family-owned “sari-sari” stores in the Philippines and tuk-tuk drivers in Thailand, to firms with several hundreds of employees involved in international export.



Tuk-tuk drivers



“Sari-sari” stores



International export

All of them share a profit motive which needs to be considered when implementing climate-relevant measures. In particular, a clear definition of the business case and sound accounting standards remain a challenge for smaller enterprises.

MSMEs contribute significantly to economic development and employment generation. They play a crucial role in the economic development of their countries. On average, they account for around 90 percent of businesses in developing countries, provide employment for most of the population and promote innovation and development.⁷

The Small and Medium Enterprise Finance Working Group (SMEF WG) recently published the survey report on Defining Micro, Small and Medium Enterprises (MSMEs) in the AFI Network.⁸

It found that the top criteria used to define MSMEs in AFI member countries were:

- 1 number of employees
- 2 sales turnover
- 3 asset size.

There were no distinct regional patterns in criteria use.

The International Finance Corporation’s (IFC) definition of MSMEs uses the same three criteria:

INDICATORS	MICRO ENTERPRISE	SMALL ENTERPRISE	MEDIUM ENTERPRISE
Employees	<10	10-49	50-299
Total Assets	<USD100,00	USD100,000 - <3 Mio.	USD3 Mio. - <15 Mio.
Total Annual Sales	< USD100,000	USD100,000 - <3 Mio.	USD3 Mio. - <15 Mio.

6 Small and medium enterprises are usually referred to as SMEs.

7 Dalberg. 2015. Increasing MSME access to climate finance. Available at: https://cdkn.org/wp-content/uploads/2015/10/CDKN-Dalberg-Access-to-Finance-for-MSMEs_-final-1.pdf

8 Inclusive Green Finance: A Survey of the Landscape. Alliance for Financial Inclusion. 2019. Kuala Lumpur. <https://www.afi-global.org/sites/default/files/publications/2017-05/2017-SMEF-Survey-Defining%20MSMEs.pdf>

The SMEF WG was formally launched at the September 2013 Global Policy Forum (GPF) in Kuala Lumpur, Malaysia, following a decision taken by AFI members at a high-level meeting in Bangkok, Thailand earlier that year to establish a dedicated new working group on SME finance. The vision of the SMEF WG is to contribute to the development of MSMEs in developing and emerging countries through financial services.

The SMEF WG promotes the development and implementation of policy frameworks that enable MSMEs to have improved access to financial services within national contexts.

The SMEF WG has two key objectives:

1. To advance a shared understanding of how different dimensions of financial services contribute to the development of sustainable MSMEs in developing and emerging countries
2. To identify policy frameworks and interventions that enable and enhance the socio-economic role of SMEs, with a specific but not exclusive, focus on financial sector policy.

In 2019, the SMEF WG decided to create a subgroup for inclusive green finance, with the goal being to inform AFI members on various policy approaches that may increase MSMEs resilience to climate change and develop avenues for mitigating climate change.

The SMEF WG subgroup for inclusive green finance for SMEs distributed a survey to take stock of the policies that AFI members have enacted for MSMEs in the context of climate change. The survey investigated three parts: Strategy, Adaptions and Mitigation.

Based on the responses to the survey from AFI members we can conclude the following:

1. There is a lack of awareness and understanding of the importance of this topic. For example, most of the respondents reported that they did not have a standard definition of green finance in their institutions and that they did not encourage financial institutions to provide adaptation or mitigation finance for MSMEs.
2. A few countries considered this topic in their NFIS.
3. The majority of AFI members do not collect data on the impact of climate change on MSME finance.
4. The majority of respondents do not enact policies or mandates that seek to increase the resilience of MSMEs to climate change.



Inclusive Green Finance was one of the policy areas with the strongest growth in interest and satisfaction, according to the 2019 AFI Member Needs Assessment.

The higher level of satisfaction also incorporates the increasing opportunities for members to be part of global discourse on inclusive green finance issues, and in doing so to influence global deliberation and ideas on this topic. Moreover, 18% of AFI Leaders - institution heads and deputy heads - have indicated inclusive green finance as a high priority policy area in the next two years and that is stated in recent high level engagements.

Therefore, it can be concluded that increasing the resilience of MSMEs or mitigating their contribution to climate change is a priority, but that not all countries are currently addressing this intersection or have the knowledge on how to address it. The main reasons for not yet moving forward with inclusive green finance policies for MSMEs can be summarized as follows:

- > Lack of data on the impact of climate change on MSMEs.
- > Lack of coordination between climate change authorities and central banks and supervisory authorities within national governments.
- > Low level of capacity and knowledge on how regulators and policymakers can work on this topic.

There is already a clear role for financial sector policies to encourage adaptation and mitigation opportunities for MSMEs. The capacity of MSMEs to respond and cope with climate impacts depends on addressing the barriers that exist through targeted policies. These barriers include lack of finance and market access, access to information, insufficient knowledge about climate risks, low level of ability to evaluate the cost-benefit adaptation and mitigation measurements, and lack of policies and regulations.

MSMEs AND CLIMATE CHANGE ADAPTATION

Climate change leads to an increased frequency and severity of extreme weather events which require urgent adaptation and disaster risk management (DRM) measures. According to current research, climate change can trigger disasters such as floods, storms, droughts, or heatwaves, as well as severe slow-onset changes such as sea-level rise, glacial melting and desertification. Due to poor socio-economic conditions, people in developing countries will be disproportionately affected by these developments.⁹ In this context, climate change adaptation, including DRM measures, helps limit the negative fallout from these changes in the short and medium term.

The Intergovernmental Panel on Climate Change (IPCC) defines climate change adaptation as “the process of adjustment to actual or expected climate and its effects, in order to moderate harm or exploit beneficial opportunities”.¹⁰ In other words, it comprises steps to protect people and their environment from potential damage caused by climate change. Consequently, well-defined adaptation measures require a thorough understanding of climatic conditions and predicted changes as well as mechanisms to handle them.

The adverse consequences of climate change can be grouped into categories of slow and sudden onset effects of climate changes, the former emerging gradually over time and the latter comprising distinct and sudden events such as storms and floods. Droughts fall in between these two categories. Since MSMEs are impacted by both types of changes, adaptation measures should be taken for both.

In developing countries, MSMEs employ a large proportion of the working population and make a significant contribution to GDP. As such, they can play a potentially significant role in strengthening a country’s resilience to climate change.¹¹ Natural catastrophes and climate change have an impact on the MSME sector by affecting infrastructure, business continuity and employee health and safety. Firstly, destruction of infrastructure including damage to business premises or required transport infrastructure can be a severe source of financial stress for MSMEs. Secondly, MSMEs can be confronted with the related disruption of business that is triggered by damage along the value chain (e.g. losses of raw materials or inventory). Thirdly, disasters can harm employees, either with immediate injuries or much later due to water-borne diseases, such as malaria or epidemics.¹²

Financial inclusion has been found to be an integral tool in enabling MSMEs to sustainably adapt to climate change. Specifically, access to savings and credit, as well as securing insurance, are key to the survival of MSMEs when faced with climate change, particularly in the agricultural sector.¹³

MSMEs AND CLIMATE CHANGE MITIGATION

As they make up 90 percent of all businesses in developing economies, MSMEs can contribute to climate change mitigation in the long run through a variety of ways. This includes making a transition to renewable energies, adopting green technology as well as contributing to the low-carbon value chain. Due to the lack of funding and awareness, low carbon initiatives are often tailored to a developed country context and are not adopted by small businesses in developing countries. In some cases, green taxonomies are used to guide the financial sector on low-carbon alternatives for businesses.¹⁴ There is a need for guidance on the suitability and use of low-carbon initiatives that can reduce carbon emissions, and the environmental impact of these small businesses and the tools to incentivize private sector participation within this space. Taking into account the context of the countries and their priorities, policymakers and regulators can support the financial sector by encouraging these initiatives through tailored financial products and services.

Mitigation is defined as the “reduction in emissions of GHGs into the atmosphere or absorption of GHGs from the atmosphere”.¹⁵ Direct measures comprise the reduction of emissions directly attributable to changes in the operations of an enterprise such as the instalment of solar panels or through using more energy efficient transportation. Indirect mitigation measures are activities related to the GHG reduction of a third party, for instance the development of climate-related products or the provision of advisory services. Both direct and indirect mitigation measures can be applied or offered by MSMEs.

Since the provision of energy accounts for large amounts of emissions, energy efficiency and renewable energies should be considered a priority. Access to

- 9 IPCC (n.d.): Working Group II: Impacts, Adaptation and Vulnerability. Available at: <http://www.ipcc.ch/ipccreports/tar/wg2/index.php?idp=354>. [Accessed 31 October 2018].
- 10 IPCC (2012): Glossary of terms, in: *Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation*. Available at: https://www.ipcc.ch/publications_and_data/ar4/wg2/en/annexessglossary-a-d.html. [Accessed 25 October 2018].
- 11 Climate information for climate change adaptation. 2018. Hoedjes, Miller & Usher. United Nations Environment Programme & Technical University of Denmark (UNEP DTU). Available at: https://www.researchgate.net/publication/324654215_Private-sector_action_in_adaptationPerspectives_on_the_role_of_micro_small_and_medium_size_enterprises
- 12 KPMG (2016): *Preparing MSMEs for effective disaster management*. Available at: <https://assets.kpmg.com/content/dam/kpmg/pdf/2016/05/Disaster-Management-Preparedness-SME.pdf>. [Accessed 31 October 2018].
- 13 Crick, F. et al. 2018. How do African SMEs respond to climate risks? Evidence from Kenya and Senegal. *World Development*: 108 (2018) 157 - 168.
- 14 Bangladesh Bank and Nepal Rastra Bank guide the private sector as to which products, initiatives and projects are classified as ‘green’ through a detailed green taxonomy
- 15 IPCC glossary of acronyms and specialised terms: https://ipcc-data.org/guidelines/pages/glossary/glossary_lm.html.

energy is crucial for the development and operations of MSMEs, but energy generation is also the world's largest source of pollution with the energy sector responsible for two-thirds of anthropogenic GHGs emissions.¹⁶



While the Sustainable Development Goal (SDG) 7 demands access to energy for all people, more than one billion people are still without access to energy.

Although we have seen a positive trend in connecting an increasing number of people to energy over the past few years, almost all new grid connections between 2000 and 2016 were based on power generated by fossil fuels, contributing to climate impacts. Only recently have renewable energies gained importance, often as off-grid or mini-systems. Hence, the challenge of the coming years is to provide access to energy and thereby contribute to social and economic development while at the time, ensuring that the process involved does not compromise climate change mitigation efforts.¹⁷ MSMEs can play a part in this process by

either offering sustainable energy to their customers or by reducing energy consumption while using energy from renewable sources.

However, in some cases, both climate mitigation as well as adaptation might also present an opportunity for MSMEs, especially those who will be able to offer solutions to the new challenges presented by climate change. These MSMEs might range from those that participate in the value chain of solar powered utilities to those that build storm-resilient properties.¹⁸

16 OECD / IEA (2015): Energy and Climate Change, Paris. Available at: <https://www.iea.org/publications/freepublications/publication/WEO2015SpecialReportonEnergyandClimateChange.pdf>. [Accessed 15 November 2018].

17 Energy Access Outlook 2017. From Poverty to Prosperity. International Energy Agency. Available at: <https://www.iea.org/reports/energy-access-outlook-2017>

18 Business and Climate Change Adaptation: Toward Resilient Companies and Communities. UNEP. United Nations Environment Programme, United Nations Global Compact. 2012. Available at http://caringforclimate.org/wp-content/uploads/Business_and_Climate_Change_Adaptation.pdf.

19 Gading Kencana Re-Energises Bidor with Solar Power Farm. Bernama (Malaysian National News Agency). 2019. Available at <http://www.bernama.com/en/news.php?id=1705102>



GADING KENCANA RE-ENERGISES BIDOR WITH SOLAR POWER FARM

Gading Kencana Development Sdn Bhd (GKD) realized that something can be done to transform the Bidor's landscape to cater for a solar power plant built using 90 percent local components. Bidor is a suitable location for a solar farm as it has strong sunlight with an annual average radiation of 1,695.2 kilowatt hours per square meter.

From an economic standpoint, the Bidor plant has generated MYR14 million in revenue for the state government and created jobs for locals. The power plant is capable of supplying electricity to 20,000 households and it is estimated the use of solar energy for these households can reduce carbon dioxide emissions by 760 million tons over a 21-year period.

The plant used 110,500 locally-manufactured solar modules and the development of the project opened up job opportunities for 304 locals, 30 percent of whom were young Malay women.

In 2014, GKD began operating an 8.0MW seven-hectare solar farm in Ayer Keroh, Melaka and the company had undertaken several other solar power projects, including some overseas.¹⁹

Engineers conducting inspection of solar panels, Asia/Shutterstock.

ADDRESSING MSMEs AND CLIMATE CHANGE CHALLENGES THROUGH NATIONAL STRATEGIES

As described in AFI's recent report, *Inclusive Green Finance - A Survey of the Policy Landscape*, there is an emerging trend of financial regulators linking financial inclusion and climate change in their national financial sector strategies. A significant number of these strategies explicitly include MSMEs in these considerations.

For example, the **Central Bank of Jordan (CBJ)** has promulgated the Microfinance Action Plan under one of the main pillars of its National Financial Inclusion Strategy (NFIS) 2018-2020. The Microfinance Action Plan includes a greater focus on green finance, especially for MSMEs, which represent more than 99 percent of all enterprises in the country.

The **government of Bangladesh** has long understood that climate change is both a development and environmental issue, which can result in devastating environmental and financial impacts on to the economy. From as early as 2000, the government embraced a sustainable approach to growth partly through the Millennium Development Goals (MDGs). With clear targets for MDG 7 (Ensure Environmental Sustainability) in place for nearly 20 years now, environmental sustainability remains a priority.

In 2015, the government mainstreamed the Sustainable Development Goals in its national development plan, and climate change and sustainability are seen as inseparable. The strategy adopted is two-pronged:

- 1) To increase resilience to the impacts of climate change
- 2) To build a low-carbon economy rooted in sustainable development.

The government also recently released the Bangladesh Delta Plan 2100, which details commitments to address climate change impacts and environmental conservation in the country's vulnerable delta plains of the coastal regions. This is to ensure this area remains resilient and develops sustainably. **Bangladesh Bank** drew a connection between financial inclusion and climate change in its First Strategic Plan (2010-2014) by focusing on the needs of agriculture and MSMEs.²⁰

The First Strategic Plan expects to "initiate and follow up actions aimed at mitigating risks in lending for agriculture and MSMEs, including steps for introducing crop insurance and partial risk coverage for MSME lending".²¹ The Second Strategic Plan (2014 - 2019) promulgated creating awareness and promoting SMEs, green financing and green banking, as well as promoting lending for green technologies in the agriculture sector.²²

The **Reserve Bank of Fiji**, with strategic goal 6.4.6 of its NFIS Plan, sets out to: "provide support for the development of green financial services and products. This includes services and products designed for individuals, households and MSMEs that reduce negative environmental impacts or provide environmental benefits".²³

In their NFIS, the **Ministry of Finance in Eswatini** has prioritized financial services for climate-smart technologies to build resilience into agricultural supply chains. The Ministry plans to mobilize climate finance at a national level for smallholder farmers and rural MSMEs across the country, while also training smallholder farmers in climate information services.

Although Eswatini has a relatively well-developed financial sector and 84 percent of MSMEs are banked (85 percent of adults have formal financial access), rural MSMEs and smallholder farmers are perceived as high risk and more costly to reach.

Therefore, they do not have access to credit, limiting their resilience to climate impacts and deterring sustainable employment and stable livelihoods. Specific financial incentives are being provided in order to support the engagement of MSMEs and smallholder farmers in climate-resilient farming practices. Linking the **Centre for Financial Inclusion (CFI)** and the agriculture sector under climate resilient strategies is one of the aims of the Ministry of Finance, in order to decentralize the NFIS implementation, particularly in the agriculture sector.

20 Agriculture is one of the sectors most vulnerable to climate change (Field CB, Barros VR, Dokken DJ, Mach KJ, Mastrandrea MD, Bilir TE, et al. Climate Change 2014. Impacts, Adaptation, and Vulnerability. Summary for policymakers. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC). Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, 2014.

21 Strategic Plan 2010-2014. Bangladesh Bank. Dhaka. Available at <https://www.bb.org.bd/aboutus/strategicplan/strategicplan2010.pdf>

22 Strategic Plan 2015-2019. Bangladesh Bank. Dhaka. Available at https://www.bb.org.bd/aboutus/strategicplan/strategicplan2015_final.pdf

23 National Financial Inclusion Strategic Plan 2016-2020. Reserve Bank of Fiji. National Financial Inclusion Task Force. 2016. Available at https://www.rbf.gov.fj/getattachment/Publications-%281%29/Booklet/2016-2020-Fiji-Financial-Inclusion-Strategic-Plan_-Aug26.pdf?lang=en-US

INCLUSIVE GREEN FINANCE POLICIES AND REGULATION FOR MSMEs

Increasingly, financial regulators are acknowledging that they have an important role to play in supporting MSMEs in adaptation and mitigation efforts. Members of the AFI network are already now to some extent using policy and regulation to promote MSME adaption to climate change and encourage the provision of financial products and services that reduce MSME GHG emissions.

Other policy approaches are seen in the network that protect MSMEs from extreme climate impacts include disaster risk management (DRM) mechanisms as well as the enabling of preventative measures that limit climate and environmental risk exposure.²⁴ The examples provided below are an overview of inclusive green finance policies and regulations for MSMEs from across the AFI network.



PROVISION POLICIES

Provision policies help a government ensure that financial services are being provided to qualified beneficiaries, either directly by the government itself or through the private sector fulfilling a government mandate. Provision policies which address climate change and MSMEs can target MSMEs adaptation and mitigation activities, and involve supporting mandated lending or the targeted disbursement of funds provided directly or indirectly to MSMEs through the financial institutions. The following examples are mostly targeted at mitigation, or reducing carbon emissions through catalyzing finance for MSMEs' low-carbon emission activities, with the exception being 'Refinancing Adaptation and Reconstruction of MSMEs' which are aimed specifically at supporting MSMEs to recover in the wake of natural disasters.

REFINANCING FACILITIES

Green lending and refinancing schemes primarily offer subsidized credit to commercial banks for loans for a specific purpose or set of products. Credit is most commonly extended at preferred terms, but commercial banks which make lending decisions themselves hold the risk.

REFINANCING SCHEMES AIMED AT GREEN GROWTH

The **Central Bank of Jordan's** Medium-Term Advances to Licensed Banks Program provides subsidized loans for nine sectors deemed critical to development, including renewable energy and agriculture, with SMEs being one of the target recipients.

The **Central Bank of Seychelles**, with the Ministry of Finance, provides interest rate subsidies to MSMEs through the **Seychelles Energy Efficiency and Renewable Energy Program (SEEREP)** SME loan scheme. Under SEEREP, beneficiary contributions are limited to 2.5 percent of the loan amount and the usual loan processing fees are waived under the scheme. Beneficiaries are also allowed a grace period of six months with a flexible repayment period. The SME loan scheme consists of a two-tier interest rate structure where the government provides an interest rate subsidy and the client is charged five percent interest on first SCR1 million (USD73,000 as of December 2019), seven percent on the next SCR2 million (USD146,000 as of December 2019) and then negotiates for higher amounts. Businesses with a turnover of less than SCR5 million (USD365,000 as of December 2019) are eligible for the scheme which is, in turn, limited to renewable energy systems, energy efficient appliances and energy saving devices (i.e. solar water heaters).

The **State Bank of Pakistan's (SBP)** financing scheme for Renewable Energy Projects ran from 2017 until mid-2019. Under the scheme, businesses could receive loans for solar and wind projects at a rate of a maximum of six percent. The refinancing rate from SBP is two percent. There is no preferential rate for MSMEs. Compared to the usual rates of between 12 and 20 percent, the scheme presented significant opportunities for MSMEs.

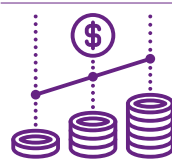
The **Reserve Bank of Fiji** has introduced an Import Substitution and Export Finance Facility (ISEF). The facility provides lending for companies in the renewable and energy efficiency business with the objective to improve Fiji's Balance of Payments position. In 2018, funding eligibility was expanded to renewable and sustainable energy projects. Of the 131 loan applications received, FJD137 million (USD63 million as of December 2019) has been issued, of which FJD80 million (USD37 as of December 2019) remains outstanding. Of this amount, 11 businesses took out loans for the energy sector. ISEF provides concessional lending whereby the RBF lends to financial institutions at one percent, which in turn lend to businesses at five percent. While the facility does not specifically target MSMEs, they can, however, take advantage of the available financing.

²⁴ Inclusive Green Finance: A Survey of the Landscape. 2019. Kuala Lumpur. Available at https://www.afi-global.org/sites/default/files/publications/2019-08/AFI_IGF_report_AW_01.08.19_digital.pdf

Bangladesh Bank (BB) has also used refinancing facilities to promote low-carbon technologies, by providing subsidized credit for solar energy, biogas and waste treatment projects and supporting funding windows for channelizing low cost financing to the targeted beneficiaries. Initiated with a two billion Bangladeshi Taka²⁵ (BDT) refinancing scheme, there are now four refinancing (on-lending) schemes under the BB’s jurisdiction for catalyzing low-cost green financing.

Over the last decade, the resources, green products and scope of the scheme have expanded to the point where four separate schemes now support 50 products in 11 categories. Several priority sectors have been identified by BB for extending SME financing supports. The list includes sectors like renewable energy production, light engineering, plastic industry, jute products, leather industry, agri-products and food processing, which have direct linkage with the economy’s green transformation. It is also important to ensure at this early stage of SME growth that expansion of these sectors do not compromise associated environmental risks.

This requires a tricky mix of enabling SME policies and green financing support. The very first step can involve aligning both ongoing and upcoming SME support schemes with existing green finance policies. It will help the SME industries grow in a sustainable way complying to environmental risk management requirements.²⁶ An overview of the refinancing schemes is given below.



SME industries need to develop to be competitive and green at the same time.

REFINANCING ADAPTATION AND RECONSTRUCTION OF MSMEs

The Vanuatu’s Disaster Reconstruction Credit Facility²⁷ was designed by the Reserve Bank of Vanuatu to assist businesses affected by Tropical Cyclone Pam through concessional lending to commercial banks. Under the facility, commercial banks could access funds at interest rates of one percent that were capped at a maximum of five percent for on-lending to businesses. The fund was initially created with USD4.5 million and offered individual loans of up to USD270,000 that could be rolled over for five years. The fund remained open for six months after Cyclone Pam with an understanding that it could be reopened following other natural disasters.

Another example is Fiji’s Natural Disaster Rehabilitation Facility, a climate resilience and adaptation program to which affected businesses and

25 USD25.5 million as of December 2019

26 Financing Green Growth in Bangladesh: Challenges & Opportunities. Available at www.bb.org.bd.

27 Government of Vanuatu. 2015. Post-Disaster Needs Assessment: Tropical Cyclone Pam. Vanuatu. Available at https://reliefweb.int/sites/reliefweb.int/files/resources/vanuatu_pdna_cyclone_pam_2015.pdf

TABLE 1: OVERVIEW OF THE REFINANCING SCHEMES BY BANGLADESH BANK (BB)

TITLE	YEAR OF INITIATION	SIZE	DURATION	INTEREST RATE TO BENEFICIARY	TENURE OF THE LOANS (MAX)	REFINANCE LIMIT	ELIGIBLE BUSINESS SECTORS	ELIGIBLE GREEN PRODUCTS/ INITIATIVES
Refinance Scheme for Green Products/ Initiatives	2009	BDT 200 billion (USD23 million as of December 2019)	Open-end and Revolving	Bank Rate+ (3%-4%)	4-10 years	0.05 - 3 million BDT	Not specified	51 Products/ Initiatives under 8 categories.
Refinance Scheme for Islamic Banks & FIs for Investment in Green Products/ Initiatives)	2014	BDT 100 billion (USD11 million as of December 2019)	-As Above-	Bank Rate/ Average Mudaraba Savings Rate+ (3%- 4%)	-As Above-	-As Above-	-As Above-	-As Above-
Financing Brick Kiln Efficiency Improvement Project	2012	USD 50 million	Close-end (December 2018)	Bank Rate +4% (Max.)	7 years	USD5 million or 50% of the project cost	Green Brick Kiln	Vertical Shaft Brick Kiln (VSBK), Hybrid Hoffman Kiln (HHK), Tunnel Kiln, Improved Zigzag Kiln
Green Transformation Fund	2016	USD 200 million	-As Above-	6 month LIBOR Rate+1% +(1%-2%)	5-10 years	100% of the machineries’ cost	Export oriented Textile, Leather and Jute Manufacturers	9 types of initiatives.

homeowners could apply to replace damaged inventory, cover the loss of sales including working capital, repair or replace damaged plants, equipment, and machinery, restore damaged buildings including resorts and hotels, and replace business vehicles. Businesses could apply for funding up to the equivalent of USD235,000 at a maximum interest rate of five percent per annum, while homeowners could apply for up to the equivalent of USD2,350 at a maximum annual interest rate of 4.5 percent. This facility was available from all commercial banks, the **Fiji Development Bank (FDB)**, and licensed credit institutions.

INNOVATION INVESTMENT FUNDS

Renewable energy has become a key economic priority for Morocco which aims to be a leader in renewable energy in Africa by 2020. The Moroccan government has activated the renewables sector at various levels through the Moroccan Innovation Strategy, and the Innov Invest Fund. The Innov Invest Fund, supported by the **Bank-al Maghrib** affiliated Central Guarantee Fund, is part of a broader financial inclusion effort for SMEs and start-ups, particularly SMEs in the renewable energy and financial technology sectors.



SME EMERGENCY FUND (SMEEF)²⁸

The SMEEF was established to assist SMEs which had their business adversely affected by natural disasters (Flood, Drought, Beach Erosion and Land Slide only).

The Fund is a public initiative that provides loan to the affected SMEs in the country with loan financing to rebuild in the emergency period after a natural disaster. The funding can reach as much as RM100,000 (USD24,000 as per December 2019), depending on the extent of the damages to the premises and is provided as both grant and loan, depending on what the funds are used for.²⁹

The scope of the Fund³⁰

The funds are provided as a grant for the following tasks:

- > Renovation of the premises, including floor, wall and doors.
- > Repairing the electricity.
- > Refurnishing (repairing the furniture already in the premises).
- > Repairing any types of machinery or tools.

The funds are provided as a loan for the following tasks:

- > Working capital (Not for salary or rental).
- > Replacing the damaged equipment with new ones.

Eligibility

- > Entity should be registered with SSM (Suruhanjaya Syarikat Malaysia) under Companies Act 1960 or Business Registration Act 1956.
- > Entity should comply with the definition of SME
- > At least 60% of the equity funds should be based in Malaysia.
- > Entity should have a valid business premises license.
- > Entity should be operating in disaster areas declared by the National Security Council (MKN) or other District Offices.
- > Entity should also need to show a letter issued by District Officer. Entity should also show a verification report from the state office of SME Corp. Malaysia
- > Facilitated by the state office of SME Corp. Malaysia.

²⁸ The portal is available at <https://mastic.mestec.com.my/sti-incentive/sme-emergency-fund-smeef>

²⁹ <https://capital.com.my/sme-emergency-fund-smeef/>

³⁰ Detailed information is available at <http://www.smecorp.gov.my/images/pdf/SMEFINANCING.pdf> (page 116)



PROMOTION POLICIES

Promotion policies allow a government to create incentives for the private sector to offer financial services to qualified beneficiaries. Incentives for MSMEs may be non-financial, or related to specific events, and often include capacity-building, knowledge-sharing, and data collection. Data collection has become a key topic among regulators eager to understand and better communicate climate risks to the financial sector.



The SMEF WG has identified capacity building as essential in promoting adequate responses of MSMEs adapting to, and mitigating, climate change, for both regulators and the private sector.

DATA COLLECTION

Superintendencia de Economía Popular y Solidaria (SEPS) in Ecuador is collecting data to examine climate change risks faced by the client's microfinance institutions to better understand the impact on the financial system. Despite the small amount of technical data available, SEPS has found that there are certain geographic areas where climate change risks are higher which has implications for credit provided to exposed cooperatives.

Similarly, the **Bangko Sentral ng Philipinas (BSP)** is gathering data and conducting research on the impact of extreme natural disasters on banking operations (at municipality and branch-level). Given the distribution of smallholder farmers and cooperatives in rural, and more climate vulnerable regions of the Philippines, this information enables the BSP to better understand which households and MSMEs are more exposed to natural disasters.



PROTECTION POLICIES

Protection policies reduce financial risk by “socializing” potential losses through insurance or social payments, or by giving exceptional access to one's own assets. Protection policies primarily relate to adaptive measures for individuals and for MSMEs, in response to either an unforeseen extreme climatic event or in preparation for adverse changes in weather conditions. As such, protection policies enable MSMEs to adapt to these risks, and as such, are a substantial contributor to building the adaptive capacity to prepare for an environment of increasing risk.

CREDIT GUARANTEES OR RISK SHARING

In Nigeria, the Central Bank guarantees 50 percent of the loss if a smallholder farmer cannot repay a loan, under the Nigeria Incentive-Based Risk Sharing System for Agricultural Lending (NIRSAL). NIRSAL includes a USD300 million risk-sharing facility through which 30 to 75 percent of a commercial bank's risk on agricultural loans is shared with the **Central Bank of Nigeria**. Bundling climate-risk insurance with subsidized lending and credit guarantees amplifies the impact. As of September 2017, 631 projects had been realized.

CLIMATE RISK INSURANCE

In Armenia, the Central Bank has responded to the challenge of climate change by establishing a system of agricultural climate insurance. Agriculture is a primary contributor to the Armenian economy and the sector experiences acute impacts of climate change. Smallholder farmers are especially vulnerable as they have limited capacity to cope with the financial losses that come from sudden and extreme weather shocks like hail and frost. As a result, the farmers default on their loans which then affects Armenia's banking sector.

Since traditional risk-sharing mechanisms and social safety nets have failed to address these challenges, the **Central Bank of Armenia** intervened, establishing Agricultural Insurer's national agency (AINA)[1], a public-private partnership responsible for agriculture insurance market development. The program has a component, which is subsidizing the insurance premium. The rate of the subsidy will be reviewed annually and for 2020 the range of the subsidy is 50% - 60%, depending on the product.

In 2015, the **Central Bank of Nigeria** established the Anchor Borrower's Program, which had a broad aim to link smallholder farmers with large-scale processors and increase financial inclusion. To alleviate the impact of climate change on farmers, the program includes revenue index insurance, which provides automatic payouts to farmers based on predicted crop yields using satellite data on precipitation. The Central Bank also provides subsidized funds to incentivize bank lending to smallholders facing climate risks.

Similarly, the **Central Bank of the Argentine Republic (BCRA)** has relaxed the conditions for granting loans to agricultural producers who have taken out insurance against climatic events. This incentive reduces the risk of vulnerable MSMEs in the agriculture sector and allows them access to more favorable loans. In recent years, multiple risk coverage mechanisms have been developed that go beyond traditional agricultural insurance, specifically parametric insurance. In addition to encouraging the uptake of insurance, the BCRA reduced the capital requirements, and provisions for 'bad debt' risk for those loans to the agricultural sector that were protected by climate risk coverage, as long

as it covers events with an occurrence of less than once every 20 years. In this way, by encouraging financial institutions to provide these hedging mechanisms, MSMEs can maintain financial stability through extreme events such as droughts or extreme floods³¹.

AGROASEMEX

In Mexico the state insurer and reinsurer **AGROASEMEX** insures agricultural losses, both for national and federal governments and acts as reinsurance for primary insurers. On the micro-level, an insurance fund provides for smallholder farmers and livestock owners with a subsidized premium to purchase insurance. The program has been encouraged by Mexican authorities and the system has proven effective.

AGROASEMEX is an insurance institution with a mission to protect the heritage and productive capacity of the rural sector. This is a public instrument to help create a national risk management system for rural sector. The government owns the vast majority of its capital. AGROASEMEX leads the management of agricultural risks in Latin America given its experience in developing and managing parametric or index insurances.

In early 2019, the Ministry of Finance issued an agreement on operational rules for the agricultural insurance program. In this agreement, climate insurance was defined (i.e., drought, excess humidity, frost, low temperatures, flood, hail, fire, hurricane, among others). The beneficiaries are such agricultural producers who pay premiums towards their various crops when they acquire the respective insurance.



DISASTER CONTINGENCY MECHANISMS

Environment and climate-related shocks or slow-onset disaster can adversely affect enter sectors. In **Bangko Sentral ng Pilipinas' (BSP) Agricultural Value Chain Financing Framework**, BSP-supervised financial institutions are allowed to put in place a disaster contingency mechanism to protect the climate-vulnerable agriculture and fisheries sectors³². The framework stipulates that such built-in contingency mechanisms should be prudently designed so as not to automatically classify borrowers as at-risk in the event of a disaster or shock, unless recoverability is actually impaired.³³

The Peruvian **Superintendencia de Banca, Seguros y AFP** approved an innovative product as contingent insurance for business interruption. The Extreme El Niño Insurance Product is based on the sea surface temperature data gathered by the U.S. NOAA (National Oceanic and Atmospheric Administration).

If sea surface temperature exceeds the temperature defined in the policy conditions, the sum insured is paid out before the El Niño weather event occurs. The insured MFIs can use the insurance payouts as additional equity to bolster their capital adequacy ratio in times of defaults from their clients and additional saving withdrawals.



PREVENTION POLICIES

Prevention policies aim to avoid undesirable outcomes rather than addressing them after the fact. In the case of MSMEs, prevention policies address the internalization and management of long and short-term socio-environmental risks to MSMEs, or by MSMEs, through risk reduction measures encouraged by policymakers, regulators and the private sector. This is most commonly seen in environmental and social risk management (ESRM) guidelines.

ENVIRONMENTAL RISK MANAGEMENT

In February 2017, **Bangladesh Bank** issued guidelines on Environmental & Social Risk Management (ESRM). The guidelines direct banks and other financial institutions to integrate ERM policies in their existing credit risk management procedures, to protect financing from the risks of environmental degradation and ensure banking practices are sustainable. The ESRM Guideline, in addition to investment threshold, define applicability based upon sector specific E&S impacts and the categories are expanded to include agriculture, retail, trade, microfinance, SME and, corporate financing and project financing. Objectives of the ERM Guidelines include:

- i) to establish a minimum standard for incorporating the evaluation of environmental and social issues in risk assessments for credit and investments, which would in turn promote sustainable business practices
- ii) rating environmental risks and their application which is determined by quantitative thresholds of the credit or investment being assessed. Loan categories include SMEs.³⁴

31 The decision of the BCRA was materialized through Communication A6489, available at <http://www.bkra.gov.ar/Pdfs/comytexord/A6489.pdf>

32 Approximately 1126 MSMEs are in the fisheries sector (13490), while 3892 MSMEs are in the agriculture, hunting and forestry sector (57,583 employees). Senate of the Philippines (2012) The MSME Sector at a glance. AG-12-03. March 2012.

33 Bangko Sentral ng Pilipinas (2016). Agricultural Value Chain Financing Framework. Office of the Governor. Circular No. 908. Series of 2016.

34 Guidelines on Environmental & Social Risk Management (ESRM) for Banks and Financial Institutions in Bangladesh. Bangladesh Bank. Sustainable Finance Department. 2017. Dhaka. Available at https://www.bb.org.bd/aboutus/regulationguideline/esrm_guideline_feb2017.pdf

THE GREEN BUSINESS CASE: OPPORTUNITIES FOR MSMEs THROUGH ACCESS TO INCLUSIVE GREEN FINANCE

In this report we have discussion-targeted policies and strategies that can enable MSMEs to either adapt to, or mitigate, climate change. However, there is also a need to expand on the green business case for MSMEs, and to explore the many opportunities that inclusive green finance presents, over and above the benefit of expanded access to financial products and services.

ADAPTATION

As developing country economies pursue sustainable economic transitions, MSMEs can benefit from adaptation activities by becoming more resilient in the long-term, to better prepare for risks, decreasing costs as well as increasing profits, accessing new markets, and diversifying product portfolios.³⁵

Adaptation oriented financial services for female-led MSMEs enable women to better cope with climate change as well as access to new markets. Climate change disproportionately impacts women. Socio-cultural norms regarding gender roles and resources are found to limit female-led MSMEs' access to certain sectors, which are usually more exposed to climate risk, i.e. agriculture.³⁶

Sustainable business practices build the adaptive capacity and risk resilience of small businesses in the face of climate risks. However, moving towards adaptive, resilient practices has tangible benefits for MSMEs, not only in reducing their own risk, but in accessing finance and gaining a competitive advantage. An increasing number of banks assess clients' risks based on environmental and social management practices, while some investment firms specifically seek businesses less exposed to climate risk.

For example, the sustainable agriculture market has grown considerably in the last 15 years. Large firms which source for MSMEs in global value chains (i.e. Mars, Unilever, H&M) are under pressure to source sustainable goods and growing public awareness about sustainability and climate change has increased the demand for sustainable products. Sustainable sourcing practices, particularly in the agriculture sector, are injecting new investment into businesses that respond to these shifting consumer demands.

These trends are evident in various industries commonly reliant on MSME-based value chains, from climate-resilient, water-efficient textiles like hemp to 'low carbon' non-dairy alternatives.³⁷

MITIGATION

There are many savings and benefits to be gained from climate-smart technology and energy efficiency products and services. Renewable energy products can be included in a green taxonomy designed by supervisory authorities directly benefiting MSMEs. This can help them save on operational costs, and also benefit from incentives, to access new markets and contribute to low-carbon value chains (i.e., maintenance and services related to green technologies).



While green investment opportunities abound, there is a growing demand for alternative energy sources and green technology.

In addition to financial opportunities, a support ecosystem for small enterprises and start-ups have been established to boost green entrepreneurship.³⁸

Regulators and policymakers signal to MSMEs where they can participate in the green economy by classifying green financial products and services in a taxonomy. The additional benefit far-reaching green taxonomies and the usually large volume of MSMEs in developing countries is advantageous in scaling a green economic transition.

Providing access to information and capacity building for MSMEs on relevant incentivized green products and services signals opportunities where MSMEs can access green finance and participate in the green economy value chains. Capacity building on green products and services, and taxonomies in partnership with financial institutions is also necessary to sustain a green economy.



35 Business and Climate Change Adaptation: Toward Resilient Companies and Communities. UNEP. United Nations Environment Programme, United Nations Global Compact. 2012. Available at http://caringforclimate.org/wp-content/uploads/Business_and_Climate_Change_Adaptation.pdf.

36 Atela J., Gannon K.E., Crick F. (2018) Climate Change Adaptation among Female-Led Micro, Small, and Medium Enterprises in Semiarid Areas: A Case Study from Kenya. In: Leal Filho W. (eds) Handbook of Climate Change Resilience. Springer, Cham

37 GPFI (2017) Financing for SMEs in Sustainable Global Value Chains

38 World Bank (2017) Igniting Climate Entrepreneurship in Morocco: Findings from the Climate Entrepreneurship an innovation Ecosystem Diagnostic. April 2017.

CONCLUSIONS

It can be noted that there are some initiatives by financial regulators and policymakers to support green climate finance mechanisms. These diverse attempts are often in response to recurring natural disasters and strongly driven by major public investment and mitigative in nature. Furthermore, the deliberate mention of climate finance within the NFIS for some of the AFI member countries is a good indication of the intention to address the issues.

However, it would be imperative to support mechanisms that will enhance increased collaboration between the financial actors and the relevant government agencies that are responsible for climate change. National level coordination is imperative and could in most contexts be strengthened.

It is important to indicate that the response to climate change would not only mitigate against that impact but also provide avenues through which the MSMEs can reduce their operational costs, hence improving profitability. There is a need to support relevant research and development for green technologies and climate-resilient business models, stimulate green finance to scale-up innovations, gather data to demonstrate the viability of new initiatives, build capacity to support the uptake of new processes, and encourage private sector participation.

There is a need to encourage and support mechanisms that will assist institutions in articulating inclusive green finance strategies. This could entail providing the definition for green finance and designing taxonomies detailing the specific products, services and activities that would leverage private and public sector investment for maximum impact. It could also involve identifying and providing opportunities to incentivize MSMEs' participation in building resilience and contributing to climate change mitigation. MSMEs have a unique and exciting opportunity to respond to this global imperative need and to make climate change adaptation and mitigation a core driver of their own risk management processes and business practices.

The SMEF WG subgroup for inclusive green finance to SMEs survey results emphasised that most developing countries are in the early stages of assessing and identifying interventions in inclusive green finance for

MSMEs. For example, while many members do not have a strict measure or standard definition of green finance, some are attempting to gather the information and build the necessary capacity to develop inclusive green finance policy for MSMEs. Among regulators, there is an avid interest in creating the capacity and knowledge to develop a taxonomy and incorporate an environmental assessment in the financial risk management.

Further, policy and regulatory efforts are needed to guarantee that all stakeholders are aware of new initiatives and opportunities that inclusive green finance offers. Accordingly, we can recommend that, on a national level, AFI member institutions should initiate or participate in stakeholder consultations to prioritize this topic in financial inclusion discussions and to implement capacity building strategies.



In international fora, knowledge sharing is essential to build capacity and knowledge on inclusive green finance.

The AFI Inclusive Green Finance Working Group, launched in 2019 during the AFI Global Policy Forum in Kigali, Rwanda, should play an integral role in developing this field.

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