



PAKISTAN



International
Labour
Organization



adelphi



This project is funded by
the European Union

FACILITATION OF GREEN FINANCING FOR LEATHER AND TEXTILE SMES FROM FINANCIAL INSTITUTIONS IN PAKISTAN

Needs Assessment Study

SUGGESTED CITATION

Maggie Sloan, Jonas Restle-Steinert, Jürgen Hannak and Rainer Agster 2020: Needs Assessment Study. Facilitation of Green Financing for Leather and Textile SMEs from Financial Institutions in Pakistan. Berlin: adelphi.

IMPRINT

Authors: Maggie Sloan, Jonas Restle-Steinert, Dr. Jürgen Hannak, Rainer Agster, adelphi Consult

Technical assistance: Farah Nadeem and Love Kumar, WWF-Pakistan.

Cover photo © Charlotta Järnmark / WWF-Sweden

Status: July 2020

© 2020 adelphi

All rights reserved. No part of this publication may be copied in any way or form without the prior written consent of the publisher. The views expressed in the report may not necessarily be those of WWF. Designed by Sana Maqsood, Communications Department, WWF-Pakistan

NEEDS ASSESSMENT STUDY

Facilitation of Green Financing for Leather and Textile SMEs from Financial Institutions in Pakistan

Authors: Maggie Sloan, Jonas Restle-Steinert, Dr. Jürgen Hannak, Rainer Agster, adelphi Consult,
Technical assistance: Farah Nadeem and Love Kumar, WWF-Pakistan.

Disclaimer: This publication has been produced with the assistance of the European Union. The contents of this publication are the sole responsibility of the author and can in no way be taken to reflect the views of WWF-Pakistan and European Union.

adelphi is a leading independent think tank and public policy consultancy on climate, environment and development. Our mission is to improve global governance through research, dialogue and consultation. We offer demand-driven, tailor-made services for sustainable development, helping governments, international organizations, businesses and non-profit organizations design strategies for addressing global challenges.

Our staff of more than 200 provides high-quality interdisciplinary research, strategic policy analysis and advice, and corporate consulting. We facilitate policy dialogue and provide training for public institutions and businesses worldwide, helping to build capacity for transformative change. Since 2001 we have successfully completed over 800 projects worldwide. Our work covers the following key areas: climate, energy, resources, green economy, sustainable business, green finance, peace and security, international cooperation and urban transformation.

Partnerships are key to the way we work at adelphi. By forging alliances with individuals and organizations, we help strengthen global governance and so promote transformative change, sustainable resources management and resilience. adelphi is a values-based organization with an informal culture based on excellence, trust and cooperation. Sustainability is the foundation of our internal and external conduct. Our activities are climate-neutral and we have a certified environmental-management system.

Maggie Sloan
Consultant
sloan@adelphi.de
www.adelphi.de

EUROPEAN UNION

Member states of the European Union (EU) have decided to link together their know-how, resources and destinies. Together, they have built a zone of stability, democracy and sustainable development whilst maintaining cultural diversity, tolerance and individual freedoms. The European Union (EU) is committed to sharing its achievements and its values with countries and people beyond its borders.

INTERNATIONAL LABOUR ORGANIZATION (ILO)

The International Labour Organization (ILO), founded in 1919, is devoted to promote social justice and internationally recognized human and labour rights, pursuing its founding mission that social justice is essential to universal and lasting peace. It is the only tripartite UN agency, which brings together governments, employers and workers of 187 member states, to set labour standards, develop policies and devise programmes that promote decent work for all women and men. Today, the ILO's Decent Work agenda is helping advance economic and working conditions that gives workers, employers and governments a stake in lasting peace, prosperity and progress.

WWF-PAKISTAN

WWF's mission is to stop the degradation of the planet's natural environment and to build a future in which people and nature can thrive.

INTERNATIONAL LABOUR AND ENVIRONMENTAL STANDARDS APPLICATION IN PAKISTAN'S SMEs (ILES)

The International Labour and Environmental Standards Applications in Pakistan's SMEs (ILES) project (2016-2022) funded by the European Union, and implemented by the International Labour Organization (ILO) and WWF-Pakistan, aims to improve national compliance with international labour and environmental standards. It provides necessary policy and capacity building support to the federal and provincial governments as well as extends hands holding and capacity building support to the enterprises from the textile and leather industry. It has introduced its targeted enterprises to different approaches/methodologies that enables them to reduce waste production, ensure efficient resource utilization as well as have better working conditions, which in turn enables them to increase productivity and be more environment friendly. The project targets to contribute significantly to increasing competitiveness, as well as promote sustainable and inclusive growth in the leather and textile sector in Pakistan.

CONTENTS

1. INTRODUCTION	1
1.1 Introduction to research question	1
1.2 Building momentum on Green Banking Guidelines (GBGs)	2
1.3 Business case for green investments in leather and textile sectors	4
1.3.1 Demand-side levers for SMEs	6
1.3.2 Supply-side levers for financial institutions	6
1.4 Methodology for needs assessment study	7
1.4.1 Methodological inputs	8
1.4.2 Defining terms	8
<hr/>	
2. BACKGROUND OF SMES IN PAKISTAN'S TEXTILE AND LEATHER SECTORS	9
2.1 Defining SMEs in Pakistan	9
2.2 Textile and leather SME landscape in Pakistan	10
2.3 Core sustainability issues in leather and textile sectors	12
2.3.1 Opportunities for sustainable consumption and production	14
2.3.2 Barriers to sustainable consumption and production by SMEs	16
<hr/>	
3. GAP ANALYSIS OF GREEN FINANCE FOR SMES IN TEXTILE AND LEATHER SECTORS	17
3.1 Overview of key players and activities	17
3.1.1 Government	18
3.1.2 Financers	19
3.1.3 Intermediaries	21
3.2 Available product offerings of green finance for SMEs	22
3.2.1 Green finance	24
3.2.2 Textile/leather SME finance	25
3.3 Challenges in facilitating green finance for (textile and leather) SMEs	28
3.4 Summary of green finance for SMEs gap analysis	30
<hr/>	
4. PATHWAYS FOR FACILITATING GREEN FINANCE FOR TEXTILE/LEATHER SMES IN PAKISTAN	32
4.1 Key recommendations	32
4.1.1 For the government	32
4.1.2 For intermediaries	35
4.1.3 For financers	36
4.2 Future of green finance for textile and leather SMEs in Pakistan	39
4.2.1 Conclusions and next steps	40
<hr/>	
REFERENCES	42
ANNEXES	47
ANNEX 1: STAKEHOLDER INTERVIEW GUIDE	47
ANNEX 2: POLICY AND REGULATORY FRAMEWORK LANDSCAPE	51
ANNEX 3: STAKEHOLDER MAPPING	53
ANNEX 4: SPECIFIC TERMS OF REFERENCE FOR FORMULATION OF A GREEN FINANCING INSTRUMENT IN PAKISTAN	56

LIST OF FIGURES

Figure 1: Areas of improvement for Green-Climate Finance Policy and framework coverage in Pakistan	4
Figure 2: Business case for green investments by SMEs	5
Figure 3: SME landscape in Pakistan	9
Figure 4: Definition of SME in Pakistan	10
Figure 5: Textile sector overview	11
Figure 6: Leather sector overview	12
Figure 7: Textile activities and environmental impacts	13
Figure 8: Leather activities and environmental impacts	13
Figure 9: Summary of environmental impacts across textile and leather sectors	14
Figure 10: Sustainable Consumption and Production (SCP) improvements for textile/leather SMEs in Pakistan	15
Figure 11: Ecosystem map of green financing for leather/textile SMEs in Pakistan	18
Figure 12: Typology of green financing challenges for leather/textile SMEs in Pakistan	29
Figure 13: Gaps in green financing for textile/leather SMEs in Pakistan	30
Figure 14: Summary of preliminary recommendation areas	40

EXECUTIVE SUMMARY

CASE FOR GREEN INVESTMENTS IN LEATHER AND TEXTILE SECTORS

The textile and leather sectors are central to Pakistan's economy and depend on the contributions of small and medium-sized enterprises (SMEs). These enterprises across sectors contribute to around 30 per cent of Pakistan's Gross Domestic Product (GDP) and account for an estimated 80 per cent of all enterprises in the textile/leather sectors (World Bank 2009; IFC et al. 2016). However, the unsustainable use of resources and poor environmental management practices, as evidenced by high levels of water and chemical consumption and contamination, present a major threat to the sustainability of these sectors (Linstead 2015; Pakistan 2007, 2013). Despite relatively abundant water resources and regular monsoon rains, water shortages are expected in Pakistan (particularly in Karachi as well as around Lahore, Faisalabad, Rawalpindi and Sialkot), with estimates that the country will be water scarce by 2035 (IFC et al. 2016, p.122). These environmental challenges are compounded by a variety of factors including a weak and dispersed regulatory regime to ensure industrial compliance with environmental laws; ground and surface water pollution and overuse; and mounting industrial growth and urbanisation, with only 1 per cent of wastewater currently treated by textile or leather firms prior to discharge (Hengstmann 2020) into seas and waterbodies (rivers, irrigation channels). The situation is further exacerbated by the concentration of water-intensive production in several industrial clusters.

In light of these intersecting challenges, WWF-Pakistan's International Labour and Environmental Standards Application in Pakistan's SMEs (ILES) project has set out to improve water and resource management practices and energy consumption in the textile and leather sectors, especially by resource-intensive SMEs, through multi-stakeholder approaches. The means for achieving these goals lies within the establishment of partnerships between various stakeholder groups, including SMEs, public authorities, intermediaries working with SMEs, financial institutions, and multi-national corporations (MNCs).



GREEN FINANCING CHALLENGES FOR SMEs AND FINANCERS

Within the ILES project, the development of a green financing instrument (Green Credit Guidelines) for the textile and leather sectors – with the endorsement and use by regulators – would extend capital to SMEs for green investments and build the capacity of key private and public sector actors to implement and monitor progress with meeting green financing objectives. Throughout this needs assessment study, “green investments” by textile and leather SMEs refer to investments in Sustainable Consumption and Production (SCP), including: (a) water management, (b) energy conservation, and (c) wastewater treatment and chemical use reductions.

In order to identify barriers and opportunities for the future development of sector-specific Green Credit Guidelines (GCG) within the ILES project, this needs assessment study aims to:



Gauge the degree of financiers’ implementation and/or interest in green financing, particularly in line with the State Bank of Pakistan’s (SBP) cross-sector Green Banking Guidelines (GBG) that were published in 2017;

Gain a better understanding of the SME lending portfolios of Pakistani banks, especially relating to textile/leather SMEs; and,

Identify current activities or future interest in financing green investments in Sustainable Consumption and Production (SCP) by SMEs within the target sectors.

Stakeholder interviews and a literature review conducted as part of this study revealed that industry stakeholders, financiers and government actors face intersecting challenges in facilitating targeted green financing solutions. Core challenges facing the financial sector relate to a lack of awareness and tools for (a) institutionalising environmental risk assessments within banks’ core businesses and (b) facilitating green businesses through the design of green financial products, especially within the remit of banks’ SME financing. Furthermore, the pipeline for investment ready and bankable green investment projects in the SME sector, particularly for textile/leather SMEs, is largely undeveloped. This can be attributed in part to (a) gaps in access to capacity building for SMEs to identify and implement SCP measures as well as (b) the general aversion of SMEs to debt-based financing. These joint issues influence the availability of and SMEs’ access to green finance solutions and are magnified by a lack of targeted policies and regulations to further incentivise green banking.

In developing targeted guidelines and financial mechanisms that facilitate access to capital for textile/leather SMEs, tailored solutions are required that:

(1) Improve the buy-in and institutional capacities of financial institutions to absorb and disburse capital through tailored green financing products for SMEs; and

(2) Build the knowledge and financial management capacities of SMEs to better access and allocate debt-based financing for green investments.

PATHWAYS FOR GREEN FINANCE FACILITATION IN PAKISTAN

Multi-stakeholder collaboration and the buy-in of various public and private sector actors is key to addressing and developing tailored solutions that overcome the challenges faced by both financiers and (textile/leather) SMEs, as identified above. Solutions are required that engage actors (including regulators, financiers and SME intermediaries) to address the key gaps identified (through interviews and desk research) in this needs assessment study. The core gaps identified include:



Gaps in coordination among ecosystem actors, particularly from the government, financial institutions and intermediaries. Despite promising examples of support provided by regulators, consultants and intermediaries working directly with banks and SMEs, further coordination among and capacity building support to actors is required to align their activities with the green financing activities, influenced by due diligence pressures throughout supply chains and desires for effective environmental compliance.



Lack of tailored capacity building and financing for SMEs to learn about and invest in SCP. SMEs in the textile/leather sectors continue to struggle to access tailored financial products and capacity building services to identify and invest in SCP measures.

Limited green business facilitation and integration of environmental risk management into banks' core activities. Banks generally struggle to define and align internal product development processes with green investment objectives, especially as these objectives relate to sector-specific environmental risk assessment and lending decisions.

Based on these gaps and with reference to global and regional best practice examples, potential recommendations for government agencies and regulators, financiers and SME intermediaries identified in this study include efforts to:

- Streamline and strengthen regulatory regime and environmental compliance, including through mandates for green financing in financial sector;
- Support training programmes around green financing and SCP for regulators, financiers, intermediaries and SMEs;
- Expand technical assistance to banks to develop activities in line with the Green Banking Guidelines (GBG), especially in support of environmental risk assessment and green business facilitation;
- Integrate environmental risk management into the core business of both SMEs and financial institutions through the adoption of robust risk assessment

frameworks and practices;

- Share knowledge and best practices among stakeholders on green financing-needs and opportunities across Pakistan with particular attention to disseminating effective environmental risk management and green business facilitation approaches; and
- Design tailored products that enable green investments by SMEs while responding to their specific investment needs and available financial data and collateral

The results of this study will be disseminated to core stakeholders noted above and will serve as the basis for the future development of comprehensive Green Credit Guidelines (GCG) supported by tailored financial mechanisms for SMEs (particularly in Pakistan's textile/leather sectors) to invest in environmental sustainability. The second component of this project (proposed in annex 4) around developing green financing mechanisms is required to refine the preliminary recommendations resulting from this study's gap analysis and develop a comprehensive financing instrument.



1. INTRODUCTION

This chapter will (1.1) introduce this study's core research question, (1.2) assess the growing momentum for green banking in Pakistan, (1.3) present the business case for green investments in Pakistan's textile/leather sectors, and (1.4) outline the needs assessment study's methodological approach and key terms.

1.1 Introduction to research question

The objective of this needs assessment study is to provide a reference document with (a) a comprehensive gap analysis and (b) outline of potential pathways (or recommendations) to guide the engagement of various stakeholders in facilitating green financing for textile/leather SMEs in Pakistan, particularly through financial institutions. The primary audiences of the study include financiers (Pakistan's banking sector), intermediaries (environmental experts and others working directly with textile/leather SMEs, such as industry and trade associations) and government actors (relevant ministries and agencies involved with policy development and regulation).

The gap analysis that forms the core of this report aims to:



Gauge the degree of financiers' implementation and/or interest in green financing, particularly in line with the State Bank of Pakistan's (SBP) cross-sector Green Banking Guidelines (GBG) that were published in 2017;

Gain a better understanding of SME lending portfolios of Pakistani banks, especially relating to leather/textile SMEs; and,

Identify current activities or future interest in financing green investments in Sustainable Consumption and Production (SCP) by SMEs within the target sectors.

Based on this gap analysis, an initial repository of potential recommendations targeting key stakeholders has been compiled. These recommendations are a result of the comprehensive analysis of existing literature, stakeholder interviews and the application of lessons learnt (or best practices) from other regional and global contexts in facilitating green finance for SMEs.

The results of this needs assessment study will be disseminated to the primary audiences noted above and serve as the basis for the future development of comprehensive Green Credit Guidelines to extend capital to SMEs – particularly in Pakistan's textile/leather sectors – for green investments through tailored financial mechanisms.

1.2 Building momentum on Green Banking Guidelines (GBG)

Based on this gap analysis, an initial repository of potential recommendations targeting key stakeholders has been compiled. These recommendations are a result of the comprehensive analysis of existing literature, stakeholder interviews and the application of lessons learnt (or best practices) from other regional and global contexts in facilitating green finance for SMEs.

The results of this needs assessment study will be disseminated to the primary audiences noted above and serve as the basis for the future development of comprehensive Green Credit Guidelines to extend capital to SMEs – particularly in Pakistan’s textile/leather sectors – for green investments through tailored financial mechanisms.

To support the development of policies and processes that facilitate green financing across sectors in Pakistan, the State Bank of Pakistan (SBP) issued its GBGs in 2017, within the Department of Infrastructure, Housing and SME Finance, Development Finance Group (DFG), as the “first step in a series of interventions leading to a sustainable environment in the banking sector” (SBP 2017). The guidelines acknowledge the responsibility of the financial sector to support policy initiatives in the transition to a low carbon, climate resilient economy. Beyond fulfilling responsibilities for environmental protection, the GBGs advocate for a break from

“business as usual” to transform the financial sector in Pakistan while (a) reducing the portfolio risks of banks/development finance institutions (DFIs) to environmental factors; and, (b) leveraging finance to “transform the economy into a resource efficient and climate resilient one”.

According to the SBP:

“While the primary responsibility of ensuring compliance with environmental laws and regulations rests with the borrowers, the banks/DFIs are encouraged to put in place appropriate mechanisms to identify, assess and mitigate environmental risks and, thereby, prevent undue financial losses” (SBP 2017).

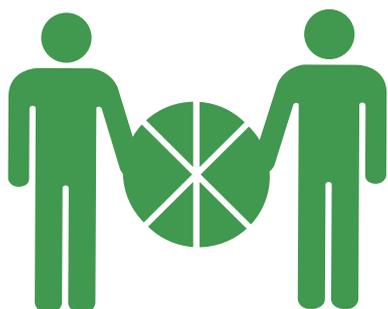
The Green Banking Guidelines (GBGs) therein provide a framework for Pakistan’s financial sector – specifically banks/DFIs that are nationally regulated within the SBP’s remit – to develop approaches for:

(1) Environmental risk management aligned with credit risk assessment and management;

(2) Green business facilitation through the development of innovative financial products and alignment of existing products with sustainability objectives; and,

(3) Financial institutions' internal impact reduction, particularly through resource efficiency measures.

The GBG's framework seeks to operationalise these objectives by urging financial institutions to:



Establish policy on green banking to inform key stakeholders, including banks/DFIs, investors, bank employees, public authorities of centrality of green considerations to banking activities.

Develop internal structures supported by administrative procedures to manage green banking requirements, including for identifying, assessing, mitigating, monitoring and reporting on environmental risks.

Design financial mechanisms that are aligned with green investments in renewable energy, energy efficiency and other environmentally friendly practices.

Build a system to reduce the environmental impacts from banks/DFIs' portfolio operations.

Offer a structural approach for capacity development of the financial sector in line with green banking.

Arrange periodic banks/DFIs portfolio reviews to assess environment risk status and report to relevant stakeholders, including public authorities, higher management and shareholders.



Green financing activities – in terms of developing policies and frameworks to initiate environmental risk management, green business facilitation and internal impact reduction – in Pakistan have expanded since the inception of the GBGs and through Pakistan's continual membership since 2015 of the IFC's Sustainable Banking Network (SBN 2019). Furthermore, the majority of Pakistani banks have taken initial steps to develop and internally approve their corresponding green financing policies in line with the GBGs beginning in 2018, according to the SBP and banks interviewed. The GBGs in particular indicate notable progress made in aligning banks' activities with green financing.

Despite the achievements to date, the SBN identified key areas for improvement to advance green-climate finance policy and framework coverage in Pakistan. These areas for improvement, particularly in terms of green business facilitation and environmental risk management, are summarised in figure 1, adapted from the SBN's 2019 progress report for Pakistan.

Figure 1: Areas of improvement for Green-Climate Finance Policy and framework coverage in Pakistan

Policy / Framework Focus	Areas for Improvement
Green Business Facilitation	<ul style="list-style-type: none"> • Comprehensive taxonomy for green assets • Definition/examples for social/sustainable assets • Definition/examples for sustainable financial non-debt products • Guidelines for green financial assets (excluding green bonds) • Guidelines for issuance of green bonds • Reference to existing standards • Recommendation of external party verification
Environmental Risk Management	<ul style="list-style-type: none"> • Taxonomy of potential environmental impacts • Methodologies, tools, templates to measure/report impacts • Reference to specific climate exposure methodologies
Green & Climate Investment Reporting	<ul style="list-style-type: none"> • Requirement of reporting on climate/green finance flows • Requirement of reporting on portfolio climate risk exposure • Encouragement of public disclosure
Incentives	<ul style="list-style-type: none"> • Incentives for green financial products/services • Financial incentives of green products/services

Source: adapted from IFC 2019.

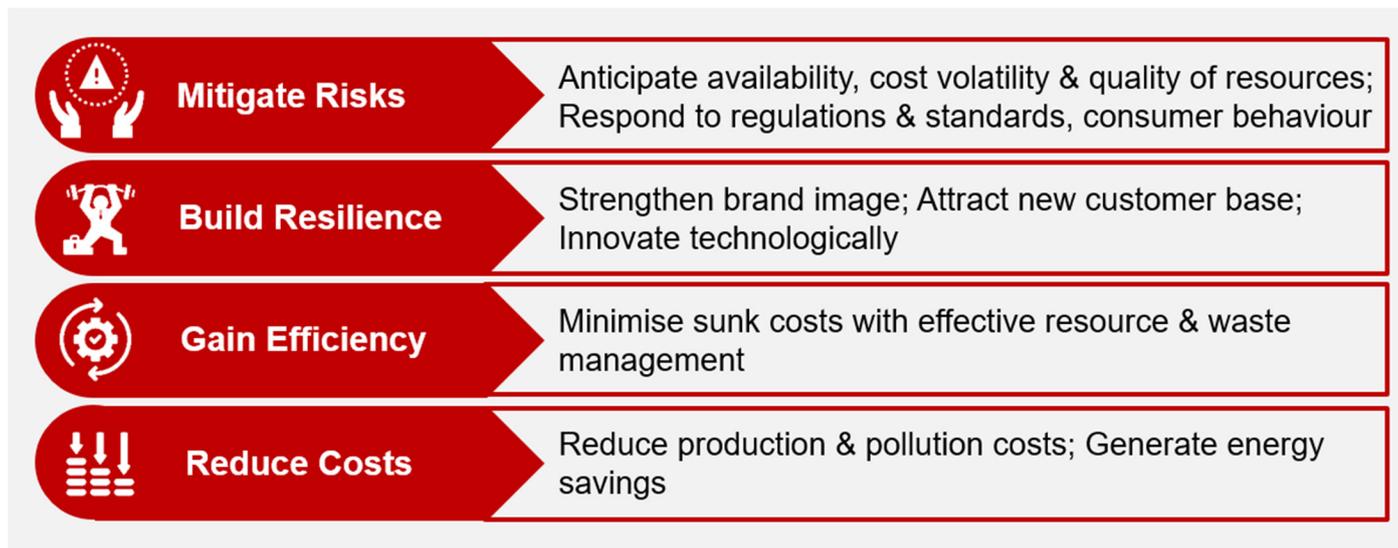
As Pakistani private and public sector actors continue to collaboratively develop approaches and systems to expand the delivery of green finance, attention must be given to the role of SMEs within the textile/leather sectors as core contributors to Pakistan's economy and economic growth potential. Despite high-levels of SME lending (including within the textile/leather sectors) and a strong commitment to green financing by multiple Pakistani banks, this study reveals that financial institutions are still in the early stages of GBGs implementation. This is particularly true with regards to the development of (1) environmental risk management models; and (2) green business facilitation beyond renewable energy and energy efficiency financing efforts. Solutions are required that integrate GBG recommendations into banks' core business, while delivering tailored financing for (textile/leather) SMEs as the backbone of the Pakistani economy to invest in environmental sustainability.

1.3 Business case for green investments in leather and textile sectors

There is a strong and growing business case for textile/leather SMEs to invest in Sustainable Consumption and Production (SCP) measures and for financial institutions to facilitate these investments through tailored financing solutions. This claim of a strong business case for both SMEs and financiers is supported by evidence of attractive payback periods, cost-saving potential and improvements in production efficiency for Pakistani textile/leather SMEs. Additionally, as outlined in the following sections, there are increasing supply and demand-side levers that incentivise SMEs and financiers to engage in SCP and green financing. Investments in SCP by textile/leather SMEs in Pakistan are required to meet national and international commitments

to environmental risk management and the transition to a low carbon, environmentally sustainable domestic economy that is also embedded within profitable, export-oriented global supply chains. Ultimately, going green makes business sense for SMEs and financiers by mitigating risks, building resilience, delivering efficiency gains and reducing costs of production.

Figure 2: Business case for green investments by SMEs



Sources: McKinsey 2011; Carbon Trust 2016; RECP; 2004; IFC 2004, 2007.

A WWF study of SMEs from the textile/leather sectors (among others) from 2015 audited the investments of SMEs in water-related process improvements, defined in terms of water management, energy conservation and wastewater pollution and chemical use reduction contributions (WWF-Pakistan 2015). For the textile processing sector, all investments included (in the range of PKR 12.6 – 26.1 million) were paid back in less than one and a half years, with annual returns of PKR 10.1 to 20.7 million. These investments resulted in 5 – 30 per cent improvements in water conservation, 5-10 per cent chemical savings and energy efficiency, and 10 – 30 per cent pollution reductions.

For the leather sector, results were similarly promising. Investments between PKR 13.7 and 28.7 million in total across SMEs surveyed paid back in under one and a half years with annual benefits ranging from PKR 11.7 to 22.9 million. Water conservation improvements were around 5 – 30 per cent, while energy and chemical savings totaled 5-10 per cent and pollution reductions to 10 – 30 per cent. Although this 2015 study looked primarily at the investments of textile/leather SMEs in water-specific measures, the promising results and initial data collected point to a strong business case for further SCP investments by SMEs, moving beyond water-specific measures.

Furthermore, the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) programme to finance environmental and safety retrofits in the Bangladeshi Ready-Made Garment (RMG) sector project (2017-2021) commissioned by the German Federal Ministry for Economic Cooperation and Development (BMZ) developed various business case studies, identifying the costs and payback periods as well as potential financing sources for various retrofits in the RMG sector. These business cases from Bangladesh reveal the environmental and economic benefits offered by environmentally friendly retrofits, including retrofits for caustic soda recovery, waste heat recovery, automatic chemical dosing, reuse of cooling water, boiler economisers, steam distribution, compressed air supply and sewing machine motors.

This business case is further reinforced by key demand and supply-side levers (or trends) affecting activities of SMEs and financial institutions, respectively. Changing market demands – particularly export requirements for the environmental sustainability of SMEs' products – and the increasing availability of capital and technical assistance earmarked for green financing are increasingly incentivising green investments in SMEs, including within the textile /leather sectors in Pakistan. Both private

(industry actors and banks) and public sector (environmental and financial regulators) actors indicate a strong interest in and objectives for expanding green financing activities in Pakistan. These private and public sector actors are influenced by due diligence pressures throughout the supply chains and desires for effective environmental compliance, respectively. The SWITCH-Asia SCP facility review of SCP policy in Southeast Asia noted that commitments have been made in Pakistan to expand greening in the textile/leather sectors (Hannak et al. 2019). Notably, the Pakistan National Action Plan on SDG 12 by the Ministry of Climate Change (2017) sets out objectives for the industrial sector. These objectives include expanding environmental compliance, developing and implementing eco-standards and labeling in line with international standards, while formulating and operationalising national industry policy in line with SCP. The certification of organic cotton in January 2019 can be regarded as an important step in meeting these objectives

1.3.1 Demand-side levers for SMEs

The textile/leather sectors in Pakistan are under pressure by global markets to support environmental protection. In light of the export expansion opportunities posed in part by the European Union's (EU's) Generalised Scheme of Preferences (GSP+), granted to Pakistan in 2014, the compliance of SMEs with international environmental conventions is increasingly important to sector competitiveness and longevity. Pakistan's textiles policy (2014-2019) acknowledges the need for the sector to adjust to the changing demand and pressures for SCP. In particular, various certification schemes are visible within Pakistan's textile sector. Commonly used certification schemes and standards include the Global Organic Textile Standard (GOTS), Apparel and Footwear International RSL Management Working Group (AFIRM), the European Union's Ecolabel, bluesign SYSTEM, Higg Index of the Sustainable Apparel Coalition (SAC), Zero Discharge of Hazardous Chemicals (ZDHC) and Oeko-Tex standards (e.g. 100, 1000, STeP). The multi-stakeholder Leather Working Group (LWG) is growing in global reach and relevance to Pakistani SMEs. The LWG developed an environmental stewardship protocol that stipulates wastewater treatment and chemical usage in the leather sector. Additionally, in light of mounting compliance requirements for exports and pressures for green supply chain management globally, the implementation of environmental management practices and systems (such as ISO14001 (EMS), which has decreased in relevance in recent years) is expected from SMEs in Pakistan's leather/textile sectors to assess, mitigate and monitor the SMEs' environmental impacts (Ortolano et al. 2014, p.126). Importantly, various brands demand and monitor conformance to their own supplier codes of conduct and practices or the aforementioned third party and industry-led certification systems, challenging the capacity of businesses to track and respond to market demands.

1.3.2 Supply-side levers for financial institutions

Pakistan's involvement in the IFC's Sustainable Banking Network since 2015 through the SBP and development of Green Banking Guidelines – published in 2017 by the SBP – indicates a strong and growing commitment to green banking in Pakistan. Some banks have already emerged as first-movers in aligning their activities with green objectives, moving beyond corporate social responsibility and/or internal environmental impact reductions to develop policies and frameworks for environmental risk management and green business facilitation (or product development). Considering these green financing milestones and looking to other global and regional examples, the imperative for banks to take action is mounting in order to keep pace with the financial sector trends and respond to rising demand for green investments.

The increasing availability of capital for climate finance to invest in climate change adaptation and mitigation demands a strong role of the financial and private sectors to mainstream sustainability with financial mechanisms and matching institutional structures that acknowledge the risks posed by climate change to carbon-intensive portfolios in the financial sector. Pakistan's JS Bank is already leading the way as the only commercial bank in Pakistan to receive Green Climate Fund (GCF)

accreditation for the disbursement of global climate finance funds. Additionally, the Dutch Fund for Climate Development (DFCD), launched during COP25 in December 2019, has pledged EUR 60 million from 2019 - 2022. Open to financial institutions in Pakistan, the fund's water facility will allocate EUR 75 million through development grants; equity for construction and operational debt for projects that target climate-resilient water supply and sanitation; improved well-being, economic prospects, livelihoods, inclusion; climate-resilient land use and ecosystems; and lower GHG emissions. Further opportunities for Pakistan's financial institutions to access financing earmarked for green and climate-related objectives are likely to continue expanding as water and resource scarcity issues persist in the country

1.4 Methodology for needs assessment study

Considering these emerging trends and challenges, this needs assessment study serves as the basis for future development of sector-specific Green Credit Guidelines to facilitate financing for green investments by SMEs within Pakistan's textile/leather sectors. The key methodological components of this report include:

(1) Scoping research:

We conducted a literature review and contacted key stakeholders to collect preliminary data, policies and gather relevant information on the current status of green financing (particularly for textile/leather SMEs) in Pakistan.

(2) Gap analysis:

We distilled the results of interviews and literature review into a comprehensive gap analysis as the core study output, looking at the current status of and challenges with facilitating green financing for SMEs in the textile/leather sectors in Pakistan.

(3) Recommendations:

We compiled a repository of preliminary recommendations targeting government actors, intermediaries and financiers based on the gap analysis and with reference to best practice examples in green financing from the region and globally. These recommendations will serve as the basis for future engagement around green financing facilitation for textile/leather SMEs envisaged within the proposed Terms of Reference for Formulation of a Green Financing Instrument in Pakistan included in annex 4.

The results included in this reference report were supplemented through stakeholder feedback collected during dissemination workshops. The purpose of the dissemination of results is to build the basis for the further facilitation of green finance for SMEs by financial institutions. In particular, workshop done in July and August 2020 explored the opportunities to develop tailored policies and financial mechanisms that meet the needs of SMEs, specifically in the textile/leather sectors, beginning with the drafting of Green credit Guidelines.

1.4.1 Methodological inputs

Thus, this needs assessment study contains the results of:

A literature review conducted with particular attention to the status of SME lending, green banking, and demand and supply-side barriers to investments in cleaner/sustainable consumption and production by Pakistan's textile/leather SMEs. Furthermore, examples of regional and global best practices in green finance for SMEs and Green Credit Guideline development were referenced.

Stakeholder interviews engaged key actors to collect information on the status of GBG implementation, alignment of the financial sector's SME lending portfolios with green investment objectives and interest of stakeholders in future opportunities for facilitating green finance for (textile/leather) SMEs in Pakistan. Interviews were conducted with eight stakeholders, including four commercial banks, one regulator, two industry and trade associations and one cleaner production centre. Annex 1 provides an overview of interview questions for stakeholders.

1.4.2 Defining terms

In the context of this study, textile sector refers to fabric production and finishing as well as ready-made garment production. The leather sector in this study covers tanning and leather processing/product manufacturing.

This study employs key terms relating to access to green finance, SME financing and sustainable consumption and production (SCP). Green finance in this report follows the definition adopted within the SBP's Green Banking Guidelines (GBGs) – with particular attention to the GBG's components of environmental risk management and green business facilitation, or product development. SME finance refers within this study broadly to SME lending by financial institutions, mainly commercial banks. The nexus of green finance and SME finance (i.e. green finance for SMEs) refers to SMEs' receipt of capital to invest in sustainable consumption and production (SCP), or green investments. Importantly, this nexus of green finance for SMEs is the primary focus of this study and its analysis of the barriers and opportunities for facilitating green financing for textile/leather SMEs from financial institutions in Pakistan.

Green investments – particularly by SMEs in the textile/leather sectors – are defined throughout as the dedication of capital to Sustainable Consumption and Production (SCP), meaning the mitigation of industry impacts on the environment through sustainable input procurement and resource-efficient production. In the case of Pakistan's textile/leather sectors, green investments in SCP relate primarily to financing for (a) water management, (b) energy conservation, and (c) wastewater treatment and chemical use reductions.

2. BACKGROUND OF SMES IN PAKISTAN'S TEXTILE AND LEATHER SECTORS

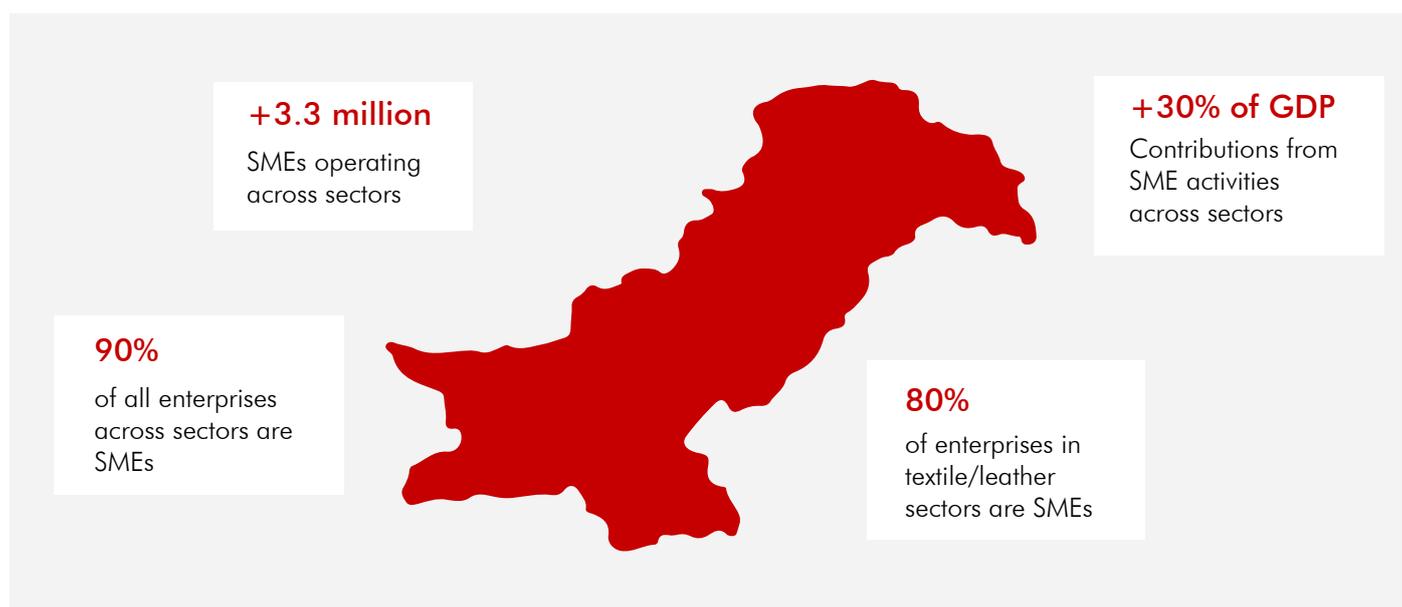
In light of the growing momentum for green financing and business case for green investments in Pakistan's textile and leather sectors – as presented in the previous section – chapter 2 will (2.1) identify the significance of SMEs to the Pakistani economy, while paying particular attention to (2.2) SMEs in the textile and leather sectors and the threats posed by (2.3) sector-specific sustainability challenges. From here, this study will (2.4) identify opportunities for SCP investments by SMEs in the sectors and (2.5) key barriers to implementing these SCP measures, namely knowledge and technical competences and – of particular relevance to this report – access to finance.

2.1 Defining SMEs in Pakistan

Pakistan hosts 3.3 million SMEs, constituting more than 90 per cent of all enterprises across sectors (IFC 2016; ADB Review 2020). The contributions of SMEs to the Pakistani economy and the need to support the development and growth of SMEs is widely recognised, including in the financial sector:

“SMEs create new jobs and facilitate wealth creation, provide essential business infrastructure for large enterprises, and are the basic source of innovation and entrepreneurial activity. In many countries, the banking industry has adopted innovative approaches to exploit full potential of the SME sector through designing SME specific products, improved risk criteria and financial reporting standards, and special lending techniques.” (SBP 2017)

Figure 3: SME landscape in Pakistan



Sources: SMEDA 2019; IFC 2016; World Bank 2009; SBP 2017; ADB Review 2020; Kureshi et al. 2009; Ortolano et al. 2014.

Pakistan’s National SME Policy 2019-24 indicates the government’s commitments to SMEs as strategic levers for poverty alleviation, economic revival (including rural development) and employment generation (SMEDA 2019). Within Pakistan, SMEs are defined by this policy as having up to: 250 employees, PKR 25 million in paid-up capital and PKR 250 million in annual sales, as indicated in figure 4.

Figure 4: Definition of SME in Pakistan

Employment Size	Paid-Up Capital	Annual Sales
Up to 250	Up to PKR 25 Million	Up to PKR 250 Million

Source: SMEDA 2019.

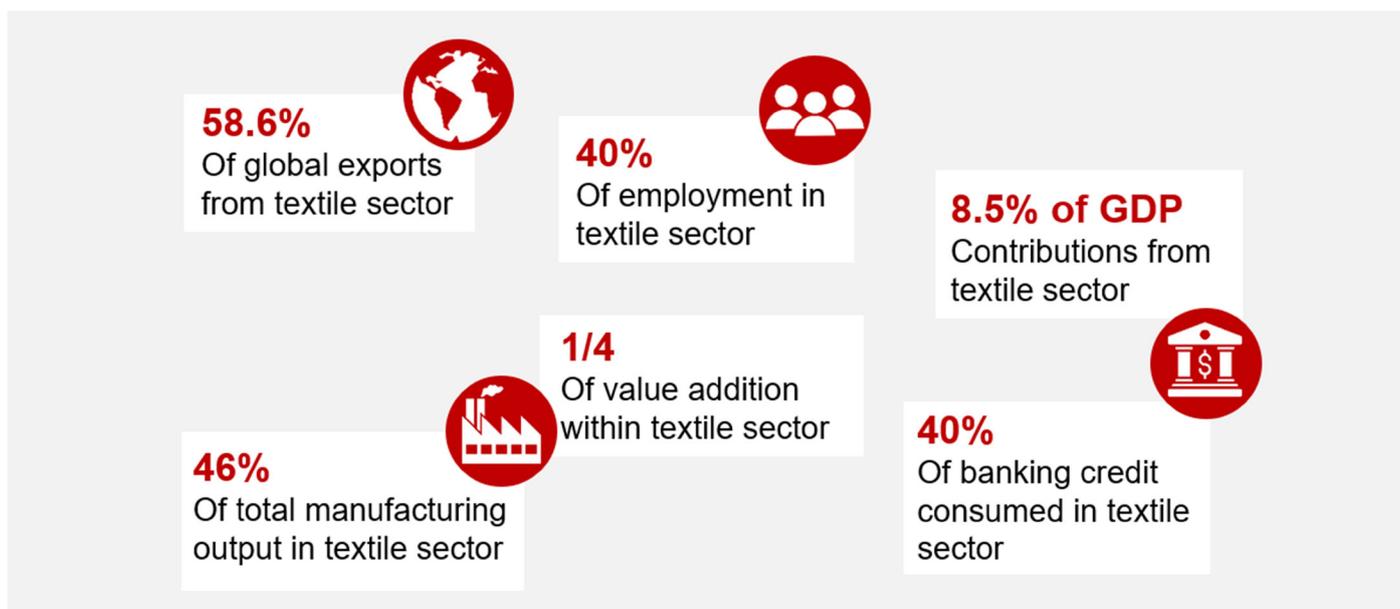
Pakistan’s SME policy established working committees tasked with addressing the central issues faced by SMEs, including access to finance and business development. Within access to finance, core challenges recognised by the government included increasing access to formal financing, overcoming lack of documentation, improving SMEs’ capacities to become bankable and building banks’ technical capacities (SMEDA 2019). Among other efforts, the government established the SME Bank to scale efforts to finance bankable SMEs and many Pakistani banks offer products and services specifically for SMEs across sectors.

2.2 Textile and leather SMEs landscape in Pakistan

The textile/leather sectors in Pakistan are two of the largest and most significant contributors to manufacturing, employment, and foreign exchange (Sial 2018; IFC et al. 2016, p.17). Pakistan is one of the largest producers of cotton in the world and textiles account for most of the country’s exports, particularly in the form cotton fibre as well as value-added apparel and sporting goods. An estimated 80 per cent of businesses within the textile and leather sectors in Pakistan are SMEs.

Pakistan’s textile sector is highly involved in value-added textile processing, with around 1,545 processing units estimated to be in operation in Punjab and Sindh, where there are about 841 woven processing units and the remaining firms are active with knitwear processing (WWF-Pakistan 2015). Other figures from the Textile Commissioner’s Organisation (TCO) in 2018 note that the textile industry consists of 517 textile units (TCO 2018). This figure does not include industrial units from the clothing sector. Sixty five per cent of industrial units in the sector are located in various industrial clusters in Punjab, particularly in Lahore, Faisalabad, Gujranwala and Jalapur Jattan. Textile/leather sector exports totalled USD\$7,657,042 in 2019, increasing by 3.7 per cent from 2018 (TDAP 2020). Between July 2018 - January 2020, the textile sector accounted for around 57.4 per cent of the total export value. Knitwear (hosiery) accounted for 13.3 per cent on average of total exports across sectors, ready-made garments (apparel and clothing articles) for 12 per cent, bed ware 10.3 per cent, cotton fabrics 9.3 per cent followed by other areas of the textile sector, including cotton yarn, towels, textile made-ups, art silk and synthetic textiles, other yarns, knitted/crocheted fabrics and raw cotton (TDAP 2020).

Figure 5: Textile sector overview

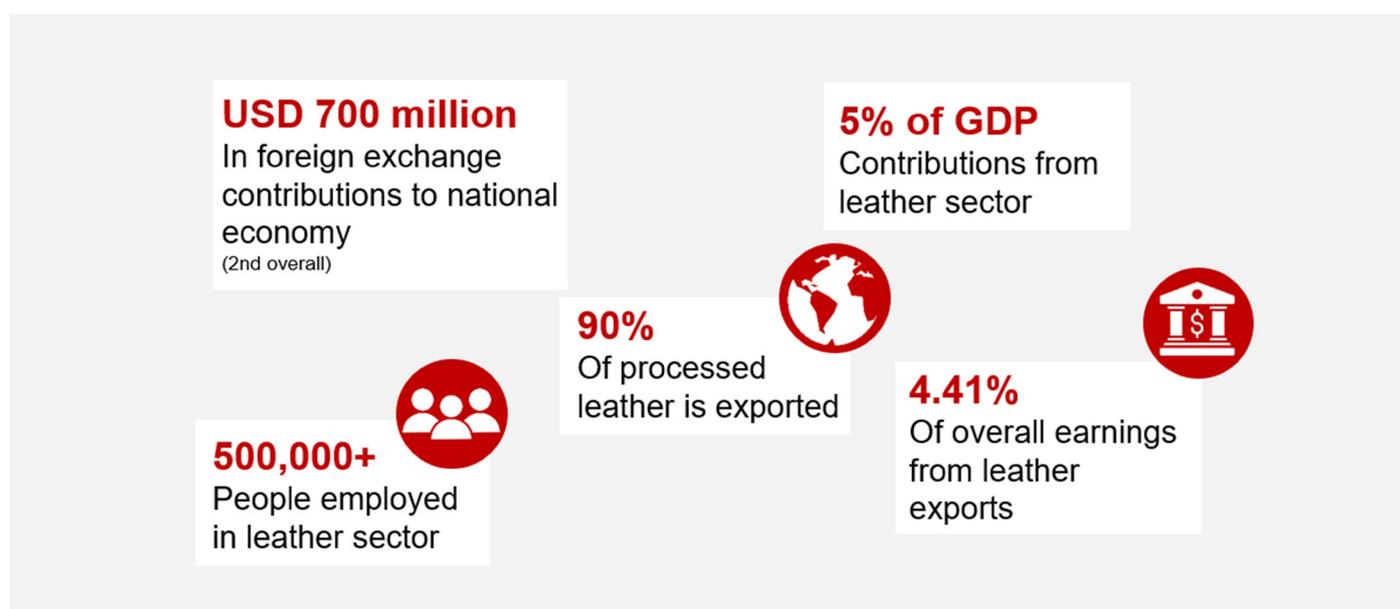


Sources: Sial 2018; Farooq 2018; Ghulam Jillani Hasimi 2017; Memon 2010; TCO 2018.



Within the leather sector, more than 700 registered leather processing units were operating in Pakistan as of 2016 according to the Pakistan Bureau of Statistics (PBS 2016). These numbers are much larger when non-registered firms are included, though numbers are often conflicting across sources. According to the Pakistan Tanners Association, there are around 800 tanneries (both registered and non-registered) across the country (PTA 2020). WWFPakistan has referenced around 650 registered tanneries located in Punjab and 200 in Sindh (WWF-Pakistan 2015). Furthermore, the Trade Development Authority (TDA) of Pakistan notes that Pakistan hosts more than 2,500 both registered and non-registered footwear manufacturing units and tanneries (TDAP 2016). The Pakistan Institute of Trade and Development (PITAD) listed 461 leather garments/apparel-making units in 2012 (PITAD 2012). In terms of size, tanneries are categorised as small, medium and large based on the number of processing drums, where tanneries with one to two drums are considered small, three to five drums as medium and five or more drums as large. Major leather sector activities are concentrated in Karachi, Kasur, Sialkot, Lahore, Multan, Faisalabad, Gujranwala, Sahiwal and Peshawar. Roughly, 90 per cent of leather exports from Pakistan are in finished form. Over 7 per cent of the world's exports in leather apparel and clothing accessories are from Pakistan, with leading purchasers from Spain, Italy, Germany, China, UAE, Turkey, UK, France and the USA (International Trade Center).

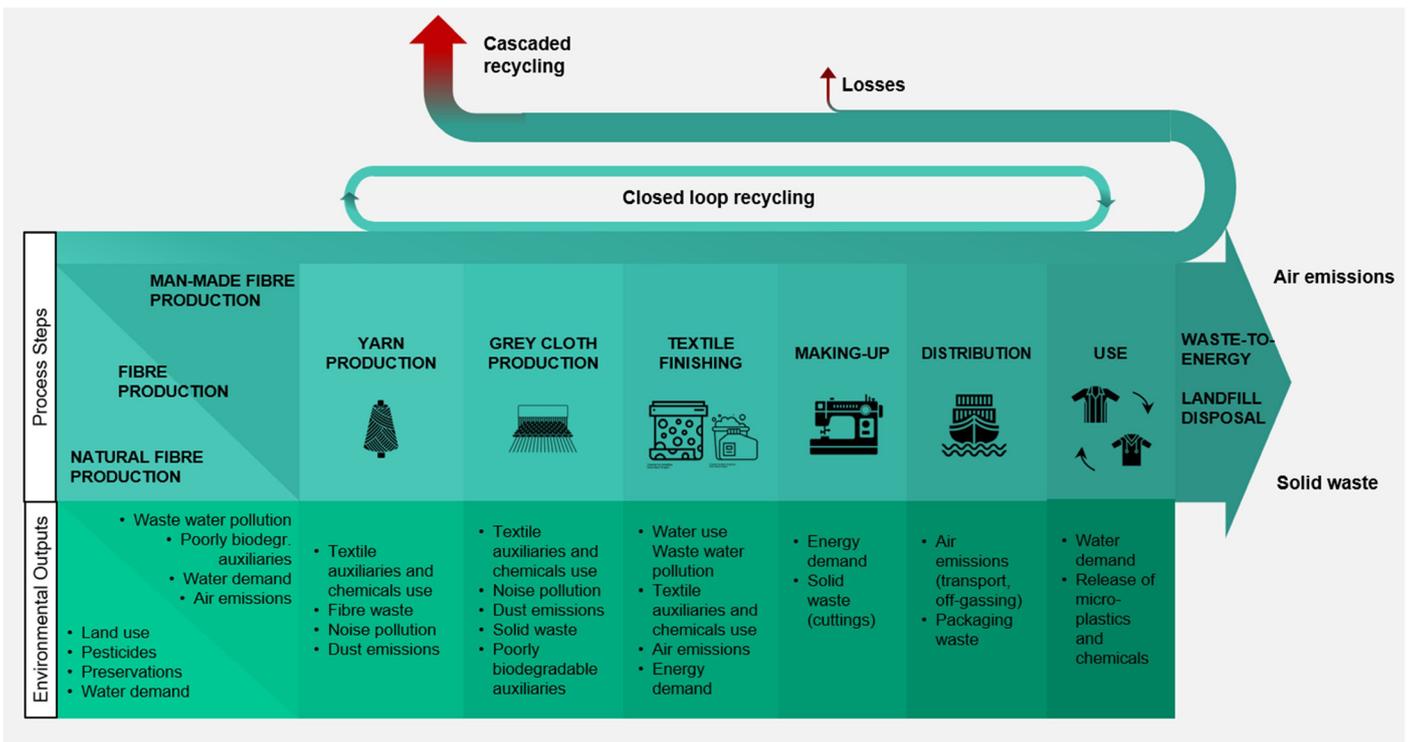
Figure 6: Leather sector overview



2.3 Core sustainability issues in leather and textile sectors

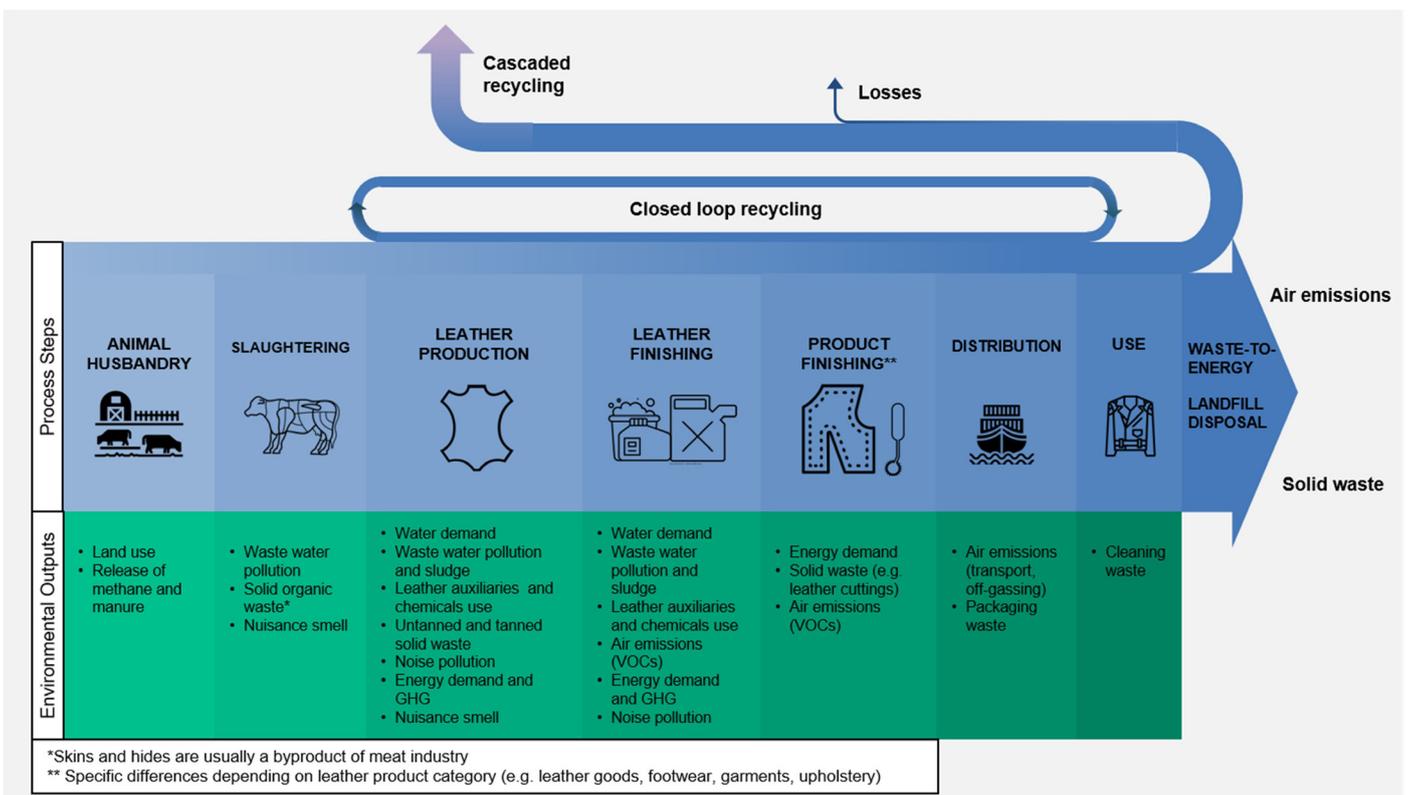
The major activities and related environmental challenges for the textile and leather sectors in Pakistan are summarised in figures 7, 8 and 9, which outline the environmental inputs and outputs of textile processing, leather processing and a summary of environmental impacts across sectors, respectively. Textile processing activities are highly energy and water intensive and contribute significantly to noise pollution, air emissions and solid waste that makes its way into the surrounding environment. Similarly, leather processing involves the input of various harmful chemicals and high-water consumption, resulting in solid waste and liquid effluents that clog waterways, contaminate soil, and pose a threat to human health and safety. Furthermore, levels of compliance with varying environmental regulations and standards across provinces remain somewhat low (though difficult to measure) in Pakistan.

Figure 7: Textile activities and environmental impacts



Source: Adapted by adelphi (Hannak et al. 2019; Hemkhaus et al. 2018) from Ellen MacArthur Foundation (2017).

Figure 8: Leather activities and environmental impacts



Source: Adapted by adelphi (Hannak et al. 2019; Hemkhaus et al. 2018) from Ellen MacArthur Foundation (2017).

As indicated in figures 7 and 8, the textile and leather industries are both characterised by high consumption of process chemicals, water and energy while producing significant amounts of wastewater and waste. The core environmental impacts across sectors are summarised below in figure 9.

Figure 9: Summary of environmental impacts across textile and leather sectors

	Leather Sector	Textile Sector
Water	High water consumption, contamination/degradation of surface/groundwater resources and biodiversity from effluents, especially during tanning with high levels of Total Dissolved Solids (TDS)	High water consumption and chemical contamination of water resources, including high levels of TDS
Land	Damage to soil from dump sites, improper disposal of waste and wastewater plus chemicals used during pre-treatment, tanning and finishing as well as tannery wastewater treatment sludge	Mishandling of non-hazardous solid waste (e.g. process leftovers from cutting and packaging within ready-made garment units) and hazardous sludge from wastewater treatment with high levels of chemical contamination
Air	Emissions from energy consumption, particularly boilers (generally gas or wood fired engines, operating through power breaks) plus noxious emissions that particularly harmful to human health	Emissions from energy consumption coupled with air pollution from manufacturing processes, e.g. from ovens and boilers, thermic fluid heaters, singeing, stenters, use of solvents, spillage/wastewater treatment

Sources: Hannak et al. 2019; Samad 2015; Sial, 2018; Nemeč 2011; Noor et al. 2018; Hengstmann 2020; Batool 2017; Textilbuendnis 2018.

2.3.1 Opportunities for sustainable consumption and production

In light of the supply and demand side levers presented in chapter one and the major environmental impacts of the textile and leather sectors in Pakistan outlined above, the economic and environmental sustainability of textile and leather SMEs depends on the adoption of environmentally conscious input procurement and resource efficient production. Across both sectors, the economic and environmental sustainability of Pakistan’s leather and textile sectors can be secured by investing in SCP measures. Figure 10 offers a broad summary of potential SCP investments relating to (a) water management, (b) energy conservation, and (c) wastewater treatment and chemical use reductions in the sectors.

Figure 10: Sustainable Consumption and Production (SCP) improvements for textile/leather SMEs in Pakistan

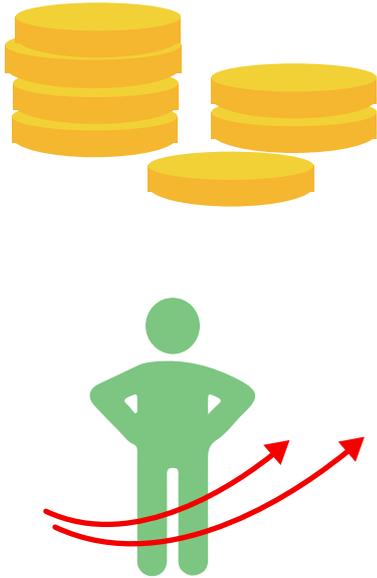
Category	SCP Methods
1 Purchasing and Storage	Promote cheaper sources of energy, water and materials Perform predictive analysis of the resources price Limit utilisation of emergency sources Procure less harmful process chemicals
2 Process Operation	Identification and adjustment of consuming processes (water, chemicals, energy) Training of workers at floor level Load management to limit consumption peaks Control process deviations Set-up corrective action plans
3 Maintenance	Effectively diagnose the problems Improve reliability of equipment through reliability-centred maintenance Set-up preventative action plans
4 Process Optimisation and Process Control	Introduce environmentally benign processes Introduce automation and control Introduce reuse, recycle and recover (including waste heat recovery) Introduce pinch technology (cascading heat exchange)
5 Equipment and Infrastructure	Invest in cleaner equipment Invest to improve efficiency of processes, including resource distribution systems

Sources: Sial 2018 (adapted from CPI and NPO); IFC et al. 2016; EY 2014; Sanchez-Triana 2012, 2014a, 2014b; IFC 2018a.

As said in chapter 1, there is some evidence of favourable payback periods, cost-saving potential and significant environmental sustainability improvements for such SCP investments by SMEs in Pakistan.

2.3.2 Barriers to sustainable consumption and production by SMEs

Despite the business case and environmental imperative for green investments, the textile/leather sectors continue to depend on resource inefficient manufacturing processes. Currently, only an estimated one per cent of wastewater in Pakistan is treated in wastewater/effluent treatment plants (Hengstmann 2020). In part, SMEs within the textile/leather sectors tend to:



Lack the knowledge and the technical competencies paired with limited resources and time constraints to identify and implement SCP improvements;

Possess limited capacities to produce bankable feasibility reports and investments plans due to a lack of financial capacity building and skills among SMEs – exacerbated by the seasonality of production and cash flow with peaks during the eid period;

Have limited access to finance required to support these SCP investments due to a variety of factors, including the dependency of textile/leather SMEs in Pakistan on personal/family capital and a lack of tailored financing (with appropriate collateral/security and other conditions) for such SCP investments by SMEs

In conjunction, these factors challenge the capacity of SMEs in the textile/leather sectors to assess, adopt, monitor and evolve their practices in order to manage and mitigate their environmental impacts. The following chapter will elaborate further on the specificities of these intersecting challenges facing SMEs while also looking at barriers experienced by financial institutions in facilitating green finance for SMEs in Pakistan.

3. GAP ANALYSIS OF GREEN FINANCE FOR SMES IN TEXTILE AND LEATHER SECTORS

This chapter (3.1) identifies the relevant stakeholders and their core activities as they relate to both SME finance and green finance, (3.2) assesses the current availability of green finance for SMEs, and (3.3) summarises supply (for financial institutions) and demand-side (for SMEs) challenges with delivering and accessing green finance, respectively. This chapter culminates with (3.4) the identification of major gaps and serves as the basis for drafting recommendations that target primary stakeholders groups in chapter 4.

3.1 Overview of key players and activities

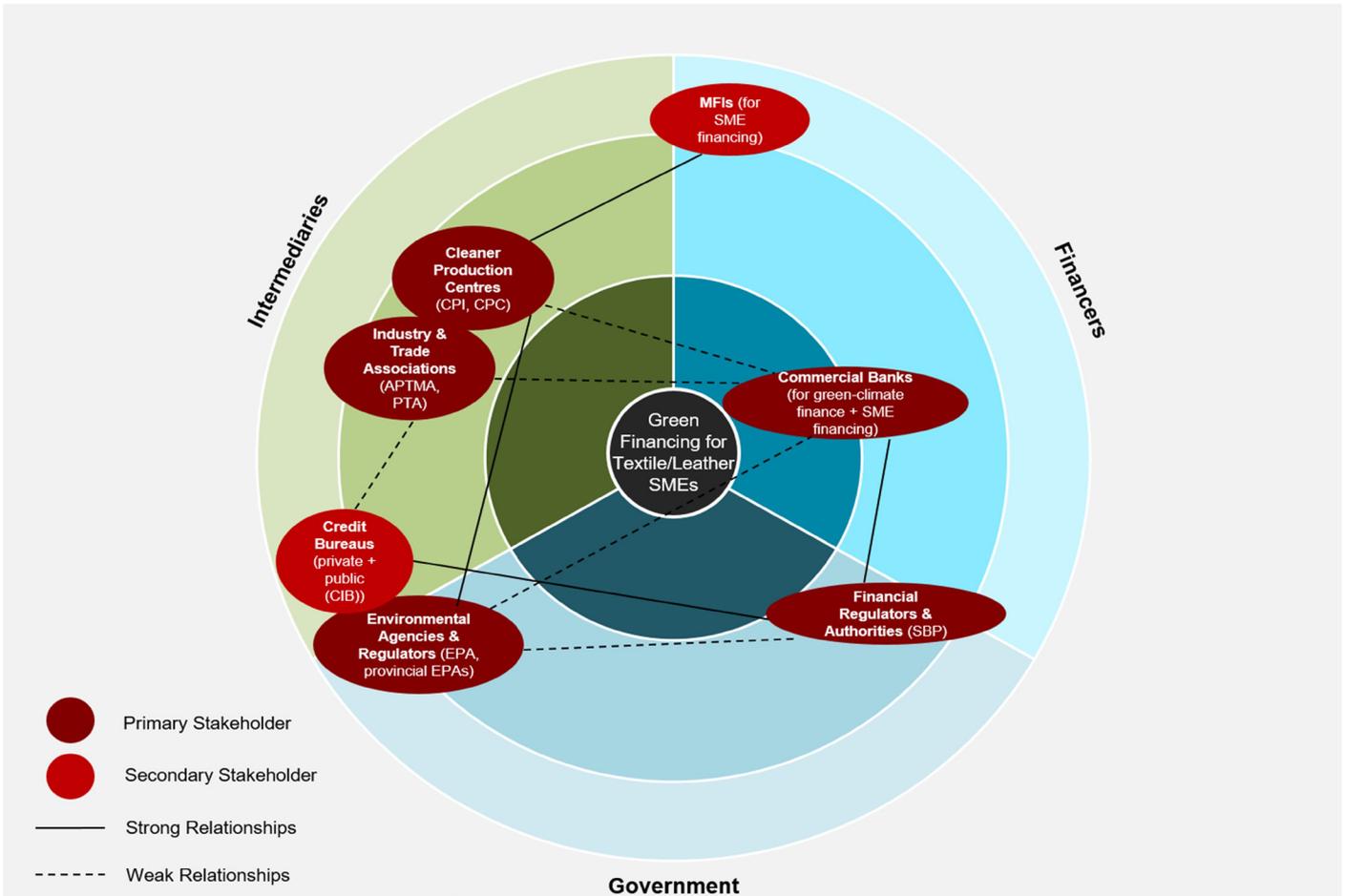
In facilitating green finance for SMEs in Pakistan’s textile/leather sectors, thereby overcoming the access to finance barriers identified in the previous chapter, the involvement of various private and public actors is required. The commitments of players from Pakistan’s public and private sectors are required to:

- (1) Cultivate a conducive ecosystem for SMEs to access support and resources required, particularly through policies and frameworks relating to SME development and financing as well as sector-specific regulation;
- (2) Build the capacity of SMEs to access available financing through (finance-focused) business development support, SCP technical assistance, certifications and more; and,
- (3) Deliver tailored financing to SMEs for investment in SCP and management

These relevant stakeholder groups and activities are identified in figure 11. Annex 3 offers a more comprehensive overview of key ecosystem actors in Pakistan at this nexus of SME and green finance.



Figure 11: Ecosystem map of green financing for leather/textile SMEs in Pakistan



Source: Developed by adelphi based on stakeholder interviews and desk research.

3.1.1 Government

Financial authorities and regulators

The State Bank of Pakistan (SBP) plays a central role as a regulator of all scheduled banks and DFIs in Pakistan. The bank published the Green Banking Guidelines in 2017, which all banks were requested to implement by the SBP in early 2018. Considering the non-mandatory status of the GBG, the primary role of the SBP in green financing involves oversight of green banking advancements in Pakistan and the provision of ongoing support to banks in their adoption of green banking activities. The SBP supports the idea of banks initiating green banking activities that fit the specific bank's profile and core competencies, for example by focusing on the expansion of renewable energy financing – heavily supported by the Pakistani government through subsidies and financing schemes – and/ or internal environmental impact reduction, depending on what is most feasible for immediate implementation. Currently, the State Bank of Pakistan is monitoring the implementation of the GBGs by banks, having requested information from banks on the status of green banking activities. The State Bank has not yet begun to collect data on the scale of financing for green projects across banks, attributed in part (according to the SBP) to a lack of decisive definition of "green" investments or financing.

In terms of SME financing, government initiatives, led by state-owned SBP, have supported the facilitation of SMEs' develop-

of credit histories and collateral; creation of demonstration effect for other financial institutions, while also financing technical assistance for selected financial institutions to expand SME lending and thereby build proof of profitability and competition in the sector; introduction of a definition for SMEs and quarterly reporting requirements on financiers' SME lending portfolios (World Bank 2009, p.109).

The Securities and Exchange Commission of Pakistan (SECP) is the national financial regulatory agency, located within the Ministry of Finance. The commission is responsible for the development of Pakistan's voluntary guidelines on corporate social responsibility, which have been taken up by various commercial banks though do not explicitly relate to banks' green business facilitation (Securities and Exchange Commission 2013).

Environmental agencies and regulators

Pakistan's Environmental Protection Agency (EPA) is responsible for environmental regulation, including the monitoring of industry-specific requirements for environmental assessments and compliance with environmental standards. Following the 18th amendment to Pakistan's constitution, the Provincial Environmental Protection Act and Strategies established a role for provincial EPAs that are authorised to set and monitor environmental law in their jurisdictions. In terms of provincial governments, the government of Punjab, for example, has indicated its intention to support the private sector to invest in environmental sustainability, with the support of a World Bank loan for the Green Punjab Development Programme that involves multiple sectors and offers matching grants to SMEs. Although the onus for environmental compliance lies with borrowers (not the financiers themselves), banks are required to perform due diligence to ensure that their clients comply with environmental regulation and have completed any mandated Environmental Impact Assessment (EIA) for their proposed projects.

The Ministry of Climate Change (MOCC) is a federal agency for governing policy, regulations, laws relating to Pakistan's climate action strategies, in line with the country's Nationally Determined Contributions (NDCs) stemming from the Paris Agreement commitments (UNEP and Ministry of Climate Change 2017). The ministry, within its Climate Finance Unit, is also the National Designated Authority (NDA) for the Green Climate Fund (GCF). JS Bank is the first and only commercial bank in Pakistan that has been accredited to access GCF funds.

Annex 2 contains an overview of key policy and regulatory framework initiatives across government departments as well as international initiatives and regulations influencing the textile/leather sectors and green financing in Pakistan.

3.1.2 Financers

Commercial banks

Stakeholder interviews reveal that the majority of banks are currently in the preparatory stage of Green Banking Guidelines (GBG) implementation, with the most significant progress noted for the establishment of internal sustainability measures – for example, renewable energy and energy efficiency investments and paper reduction across branches. Conversations with the SBP revealed that almost all larger publicly regulated scheduled banks have established their environmental risk management procedures and have started conducting environmental due diligence and aligning lending practices accordingly. Many banks are in the final stage of receiving approval for their green financing policies with their board of directors. Additionally, most banks have established green banking offices and have assigned a senior official as green banking manager, plus an additional expert from outside the industry with knowledge of green banking. In terms of green business facilitation, there are some first-movers – especially in the area of renewable energy financing, which has been heavily supported by the government in Pakistan and in high demand among SMEs due to the enterprises' low energy generation capacities and increasing energy shortages in the past fifteen years.

Some of the banks interviewed (Faysal Bank and JS Bank) indicated that they have received support (trainings) from the SBP

on the implementation of the GBGs. However, not all banks are receiving the support required. This support has primarily been related to developing policies and framework for green financing, largely overlooking the needs of banks in terms of support for developing environmental risk management and green business facilitation. In order to increase support to banks for developing green banking, the National Bank of Pakistan (NBP) indicated that they are working with industry associations, private foundations, the national EPA and a private sector consultant on the development and allocation of green financing. JS Bank, as the only GCF accredited commercial bank in Pakistan also receives support from the GCF Department and the Ministry of Climate Change (as GCF NDA) for its climate-related portfolio development. Furthermore, the NBP established an inclusive development group in early 2020 wherein the objective was to look at specific risk areas, for example water conservation and climate change, and what the bank can do to align its practices with lending solutions to address these challenges, including within the SME sector.

Regarding SME financing, broadly, the majority of SME lenders in Pakistan are private banks, particularly private commercial banks (World Bank 2009, p.109). According to a World Bank study from 2009, the major SME lenders included:

- (1) National Bank of Pakistan (NBP) accounted for 8 per cent of total SME financing in the banking sector.
- (2) Big-five banks Habib Bank Limited, Allied Bank Limited, Muslim Commercial Bank (MCB) Limited and United Bank Limited constituted the second largest share of SME financing.
- (3) Public sector banks – particularly the Bank of Punjab, Bank of Khyber, and First Women’s Bank Limited – possessed the third largest share.
- (4) Growing lending by Islamic banks, including Meezan Bank, Dubai Islamic, Dawood Islamic Bank (incorporated within Al Baraka Bank as Burj Bank in 2011), were the next largest pool of SME lenders.
- (5) Specialised banks accounted for a relatively low share (2.19 per cent) with SME Bank (supported by Government of Pakistan) as the largest within this.
- (6) Foreign banks played a negligible role.



Big-five banks Habib Bank Limited, Allied Bank Limited, Muslim Commercial Bank (MCB) Limited and United Bank Limited constituted the second largest share of SME financing.

This list of commercial banks involved in SME lending does not necessarily fully capture the current status of debt-based financing today in Pakistan. SMEDA's 'SME Financing Products Database' lists 73 SME financing products from nine banks (including Albaraka Islamic Bank, Allied Bank Limited, Bank Alfalah, Habib Bank Limited, Meezan Bank, SAMBAA Bank, Silk Bank, The Bank of Punjab and United Bank Limited (UBL)) (SMEDA 2019). Stakeholder interviews revealed that some smaller banks, specifically JS Bank (ranked 13 in size among other Pakistani banks), have established (a) SME financing and (b) green financing as their niches and are building their role within the sphere. Among those surveyed, textile SMEs (and to a lesser extent leather SMEs) are indeed central to the SME lending portfolios of Pakistani banks. As the largest sectors in Pakistan, textile/leather SMEs feature prominently in the portfolios of commercial banks.

“Textile and leather are basically the bread and butter of Pakistani banks. These are the largest sectors in Pakistan.” - State Bank of Pakistan representative

Microfinance institutions

In terms of microfinance institutions, the GBGs address all banks/DFIs within the State Bank of Pakistan's remit, but call on microfinance banks operating at national level to implement provisions from section 4 (green business facilitation) and section 5 (operational realignments for own impact reduction of the GBGs (SBP 2017)). Stakeholder interviews touched only lightly on the question of the role of MFIs in green financing for SMEs. JS Bank, as a major lender to MFIs, indicated that their role is limited to lending and does not involve product development or credit risk assessment in line with green financing or other objectives.

3.1.3 Intermediaries

Credit bureaus

In Pakistan, there are two private credit bureaus and one public, namely the Credit Investment Bureau (CIB). These credit bureaus have endeavoured to facilitate the establishment of SME credit histories with somewhat limited success. Credit bureaus cover only 20 to 30 per cent of SME borrowers and a limited number of SMEs with loans for less than PKR 6 million. This is attributed in part to the low levels of general financing offered below the ticket size of PKR 6 million as well as the fact that bureaus continue to rely on traditional financial data, overlooking the usefulness of using alternative data that is more readily available to SMEs, such as telecom and utility company payments (World Bank 2009).

Cleaner production centres

Cleaner Production (CP) activities in Pakistan were initiated in 1997 (CPI 2013). Historically, industries have been supported through international financing for CP activities. There are two major cleaner production centres in Pakistan that actively support SMEs in the textile/leather sectors to improve the environmental impacts of their businesses, the Cleaner Production Institute (CPI) based in Lahore and the National Cleaner Production Centre (CPC) (leather only) based in Sialkot. Cleaner Production Institute offers EMS services (ISO 14001 certification), environmental audits (EA), environmental action plans (EAP), wastewater treatment plants (WWTP) to SMEs within the textile/leather sectors, including as implementing partners for the WWF's project named International Labour and Environmental standards application in Pakistan's SMEs (ILES).

across Pakistan are included in annex 3. The activities of these factors involve energy and environmental audits to identify CP measures, technical assistance and awareness raising of CP (IFC et al. 2016)

Industry and trade associations

Various industry associations are active throughout Pakistan as key aggregators of industrial units, including SMEs. Nearly 400 textile mills are registered with the All Pakistan Textile Manufacturers Association (APTMA) (APTMA 2020). The Pakistan Tanners Association (PTA) hosts two zonal offices, including the PTA Southern Zone (in the Korangi Industrial Area, Karachi which represents Sindh and Balochistan Provinces) and PTA Northern Zone (in Lahore, representing Punjab province, KPK, AJK and Northern areas). The PTA's 213 registered member tanneries are actively engaged in leather manufacturing activities.

In addition to sector-specific institutions, various regional/industrial area associations are active in Pakistan. The Korangi Association of Trade and Industry (KATI) is a representative body for more than 4,500 commercial, industrial and service units in the Korangi Industrial Area, including a broad network of textile/leather SMEs. According to KATI, over 40 per cent of Pakistan's leather exports and around 450 tanneries (small to large) come from the industrial area. 372 textile mills operate in the area, contributing around seven per cent of the textile exports. The area also hosts an effluent treatment centre that is used by multiple SMEs, supported by the WWF and UNIDO. WWF and IFC are working with KATI on CP in the textile sector. The industrial area is also developing as a financial hub in Karachi, hosting branches of minor and major banks as well as insurance companies.

The Sialkot Tannery Zone (STZ) was initiated by the Chamber of Commerce and Industry in Sialkot. As a public sector initiative, the zone was established in direct response to the environmental degradation caused by tanneries and the need to develop economies of scale to address this challenge. The zone will host around 240 tanneries organised in 10 clusters, having already procured the land. The zone aims to, within four to five years, provide tanneries with modern effluent collection and treatment plants and ensure that the businesses are able to access required raw materials. Tanneries will also be provided additional infrastructure that improves their environmental impacts, such as a fat extraction plant, chrome recovery plant and common facility centre.

Various additional industry and trade associations across Pakistan are included in annex 3. Many of these actors are similarly active as key aggregators of leather/textile SMEs, including in the provision of financing for SCP investments and access to services such as SCP capacity building.

3.2 Available product offerings of green finance for SMEs

Considering the central role of textile/leather SMEs in Pakistan – including within the Pakistani banking sector, interviews with banks revealed a strong involvement of banks with lending for textile/leather SMEs. Despite the major contributions of SMEs in these sectors and more generally to Pakistan's economy, SME lending only accounts for 16 per cent of total lending volume and four per cent of customers. Furthermore, the levels of SME loans for investment purposes remain low at 3.6 per cent in comparison with regional trends in South Asia, where 12.7 per cent of SMEs on average acquire loans for investment, and 13.9 per cent devote loans to expenses – compared with 34.5 per cent in South Asia (World Bank 2009, p.17). According to a more recent IFC study from 2016, only seven per cent of SMEs are recipients of bank lending in the country (IFC 2016). Following regional trends, SME lending in Pakistan has primarily centred on financing working capital (71 per cent of SME lending), trade financing and long-term/fixed investment, according to a World Bank study from 2007.

In part, discussions with key SME intermediaries (trade and industry associations and cleaner production centres) reveal that loans are viewed unattractively by SMEs in the textile/leather sectors in Pakistan. These SMEs rely primarily on private funds for investments. Since most enterprises within the sectors are family-driven, the majority of capitalisation happens first within the family, with only a small number of entities approaching banks. According to CPI, only around one-half of SMEs in the textile/

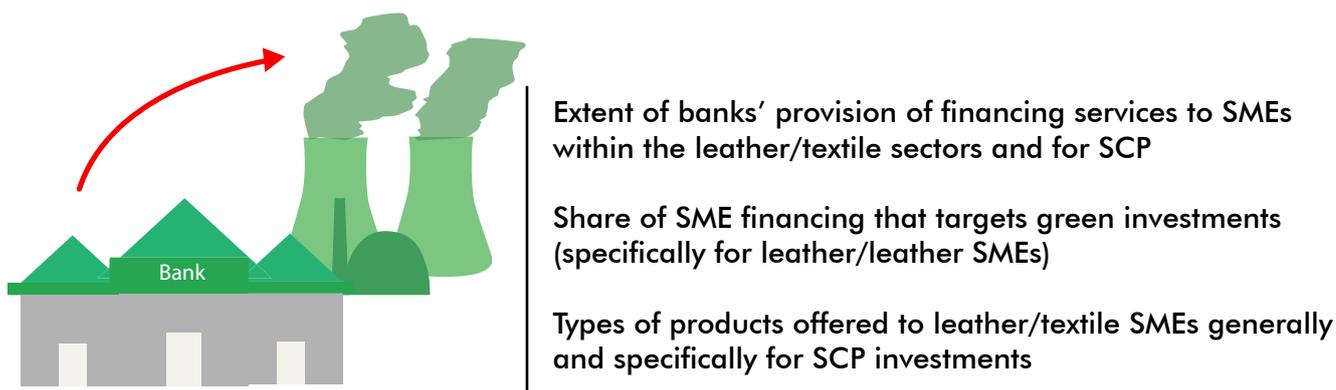
leather sectors would be interested in lending solutions from commercial banks.

Despite some reluctance on the side of SMEs to secure debt-based financing,

the market size of textile/leather SMEs receiving SCP capacity building and looking to invest in green solutions is significant and growing.

CPI estimates that USD\$ 1 to 1.5 billion are required to replace and maintain inefficient or environmentally unsustainable machinery and upgrade processes across the range of cleaner production, sustainable production and energy efficiency measures in the textile/leather sectors. Considering evidence previously presented on projected payback periods for certain sustainable investments in the textile/leather sectors, there is a significant opportunity for banks to profitably build their portfolios of green financing for SMEs.

In assessing the market potential and needs for financing SCP by textile/leather SMEs in Pakistan, stakeholder interviews and desk research were conducted – the results of which are presented in this section. These were aimed to gain a better understanding of:



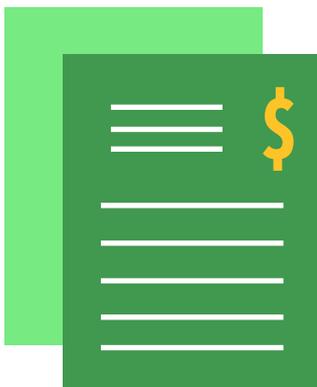
The following sections outline the current status of green finance – namely environmental risk management and green business facilitation – by banks, with particular attention to the extent to which these green banking efforts have reached or aim to address the financing needs of leather/textile SMEs in the implementation of SCP measures.

3.2.1 Green finance

Industry and trade associations

A review of banks' implementation of the GBGs reveals that many banks have initiated efforts to develop environmental risk management policies and practices in line with the guidelines. Almost all larger banks have established their environmental risk management procedures and have started conducting environmental due diligence while aligning lending practices accordingly. Even prior to the GBGs, many banks were already collecting data on the compliance of their lending portfolios with EPA regulations. JS Bank noted that 100 per cent of their project-financing portfolio complies with environmental and social risk ratings, following IFC guidelines and risk classifications; similarly, all of the NBP's financed projects have received EPA approval in their specific jurisdictions; and 94 per cent of Faysal Bank's lending portfolio has been rated for environmental compliance, as of December 2019.

Despite this, the degree of implementation of environmental risk assessments and the relation of these assessments to traditional credit risk models used to assess and price financing for borrowers varies. Still, the onus for compliance with environmental regulations lies with the borrower, where "banks can only encourage their clients to comply with environmental laws", according to a SBP representative. There are examples of banks who have developed environmental risk scorecards or environmental check-lists within project approval processes. Stakeholders have indicated, however, a general lack of coordination within the financial sector around risk profiling, with great variation among banks in practices and policies. Faysal Bank has indicated their objective to integrate an environmental risk rating model (or parts thereof) into their credit risk rating scorecard that is used to determine pricing for loans, thereby aligning the bank's core risk management with consideration of environmental impacts. This commitment is promising and indicates that momentum might be building to further align environmental and financial considerations within banks' risk management.



GBGs reveals that many banks have initiated efforts to develop environmental risk management policies and practices in line with the guidelines.

Green business facilitation

In terms of product development (part two of the GBGs' objectives), the banks surveyed showed interest in and move towards the development of products, particularly within their existing competency areas. Banks – including Bank Al-Habib, Faysal Bank, JS Bank and the NBP – have been active with financing for renewable energy and energy efficiency, especially through government supported refinancing schemes. However, within energy efficiency and renewable energy financing, stakeholders noted a lack of monitoring and verification of energy-related project implementation. This is partly attributed to lack of a clear and coordinated regulation and legal frameworks across levels of government. Interviews indicated that banks are motivated to develop new products for textile/leather SMEs beyond renewable energy and energy efficiency financing, but do not always have a clear sense of how to get it started. For this reason, some banks (namely Faysal Bank, NBP and Bank Al Habib) are working with consultants to develop green financing solutions.

3.2.2 Textile/leather SME finance

SMEs across sectors in Pakistan struggle to access the capital required to invest in their business activities, including textile/leather SMEs as indicated in chapter 2.

“A contributing factor for this limited access to credit (by SMEs) is the focus of banks on relationship lending without introducing tailored products suited to the needs of SMEs. Furthermore, the requirement for adequate collateral, information asymmetry between banks and SMEs, and lack of documentation and poor cash flow management on the SME’s part combine to make finance more difficult.” – Syed Shabbar Zaidi, Chairman of the Federal Board of Revenue (FBR), Pakistan (ADB Review 2020).

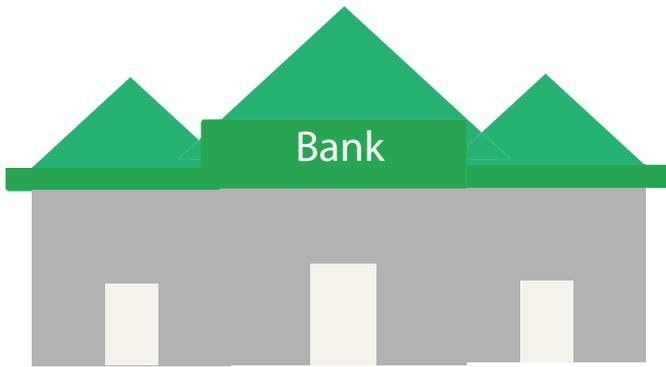
According to the World Bank’s 2009 interviews of banks and demand-side data, the major financing gap for SMEs in Pakistan is evident for loan sizes between PKR 100,000 (maximum ticket size typically offered by microfinance institutions) and PKR 5 million (World Bank 2009, p.108). This credit gap is especially pronounced for investments in sustainable production equipment/technologies and management systems. Regarding current financing available to leather/textile SMEs, CPI has estimated that there is around PKR 1 billion of investment each year by industries in the textile/leather sectors in cleaner production and sustainable production, 10 to 15 per cent of which is financed by banks. The typical ticket size for SME investments generally are in the range of PKR 1.5 – 1.6 million per borrower, dependent on the enterprise size and needs, according to Faysal Bank; where, from CPI’s perspective, textile/leather SMEs have the capacity to absorb around PKR 2 – 10 million.

Current financing available to SMEs within the textile/leather sectors include financing for renewable energy and modernisation (such as energy efficient looms), largely through SBP refinancing schemes. However, other SBP financing schemes – such as the textile upgrade fund offered in part through Faysal Bank and mark-up subsidy and guarantee facility for the rice husking mills in Sindh (SBP 2010) – have not been popular among banks’ customers due to the highly structured nature of such schemes and generally low interest rates in Pakistan. Other schemes such as the export financing scheme have been attractive to some enterprises within the Sialkot Tannery Zone (STZ) and other industrial zones, but requirements to maintain annual exports or risk mark-ups in payments presents a challenge, especially to SMEs that are less financially resilient to such changes.

Some of the SCP investments sought by SMEs and referenced by stakeholders include wastewater treatment plants, air emissions controls and the replacement of production technologies that are resource intensive and inefficient. The STZ indicated that there is strong demand among leather SMEs for securing drums to absorb chemicals from the tanning process. However, the drums are expensive and, as such, only 45 such drums have been installed for SMEs in the past 20 to 30 years in the industrial zone.

Generally speaking, bank financing for SCP activities by SMEs is difficult to estimate due to lack of clear definitions at the national level and within banks of “green” investments. Some banks indicated that within their current SME lending portfolios they are already financing some investments that could be considered “green”. However, without a comprehensive analysis of the alignment of banks’ lending portfolios with green objectives, the extent of overlap of current product offerings with green financing is largely unknown.





According to the World Bank's 2009 interviews of banks and demand-side data, the major financing gap for SMEs in Pakistan is evident for loan sizes between PKR 100,000 and PKR 5 million.



3.3 Challenges in facilitating green finance for (textile and leather) SMEs

In summary and with reference to global and regional examples, the major challenges with access to green financing for SME – the nexus of green financing and SME financing – in Pakistan are summarised in figure 12. This figure identifies major challenges from both the perspectives of (a) financial institutions and (b) (leather/textile) SMEs. The table includes gaps concerning regulatory and legal frameworks, specifically calling on the role of government in ensuring a conducive environment for SMEs to access tailored financing for SCP purposes.



Sources: Based on adelphi categorisation of challenge for green-climate SME financing; interview results; IFC et al. 2016, 2018; EY 2014; World Bank 2009; Ortolano et al. 2014.

For Financial Institutions | Supply-side barriers

Small ticket size of typical sustainable production financing tends to fall below preferred level for investment funds and lenders

High transaction costs for assessment and due diligence of smaller enterprises

Potential preference for SCP investments in clusters (e.g. for combined water treatment facility) but banks do not have demand from SMEs in clusters

Risk aversion of investors and financiers with high return expectations to SMEs, including of foreign investors with lack of common approach to risk profiling

Lower rate of return for how carbon projects

Limited understanding of SCP in terms of technology involved, monitoring models and feasibility assessment

Lack of monetary indicators for returns and expected payback periods for SCP/green investments by SMEs

Short-term orientation of lending and investment cycles hinders investment in systemic process improvements

Perception by banks as risky credit with difficult credit assessment and appraisal

Lack of financial documentation among SMEs makes the job of Project Manager within bank challenging in performing credit risk assessments

Low levels of green finance success stories and clear repayment trajectories among textile/leather SMEs.

Banks without internal structures and incentives to finance cleaner production by leather/textile SMEs

Lack of clear definitions and knowledge of “green finance” and “green/sustainable investments”

Lack of mandatory frameworks for green finance for leather/textile SMEs in Pakistan, with regulatory gaps/differences between federal and provincial levels of government (particularly with environmental law and standards)

Limited oversight / feedback from regulators, including to banks that responded to SBP’s questionnaire on GBG implementation

Figure 12: Typology of green financing challenges for leather/textile SMEs in Pakistan

For Leather/Textile SMEs Demand-side barriers	
Ticket Size	<p>Lack of tailored financial products to meet green investment needs of leather / textile SMEs</p> <p>Lack of solutions to support investments by SME clusters, where SCP investments (e.g. water processing of effluent treatment facilities) not always suited to investment and installation by one SME</p>
Risk/Return Profiles	<p>Higher risks with lower returns for early-stage enterprises due to internal / market constraints</p> <p>Lack of willingness to pay by SME decision-makers / management for SCP improvements, with SCP investments seen as added costs rather than valuable investments</p> <p>Unfavourable interest rates plus small industries must compete with larger ones under same conditions</p> <p>Reluctance of SMEs to approach banks for financing due to gaps in Islamic banking solutions and desire to avoid increased liabilities</p>
Green-SCP Technologies	<p>Lack of assessment frameworks for green-SCP technology and investments, supported by mutually agreed monitoring and verification of streams to validate feasibility</p> <p>Absence of aggregation model for technology providers to de-risk financing for and offer SCP technologies to their clients, e.g. via end user financing for textile/leather SMEs</p>
Time Horizon	<p>Longer / unclear time horizon for green-SP investments to capitalise</p>
Security / Collateral	<p>Tend to fail to meet collateral requirements, or prove sufficient track record or credit history</p>
Impact at Scale	<p>Internal & market barriers to assessing and developing green investment plan or technical analysis</p>
Human Capital & Skills	<p>Poor financial literacy & awareness of green finance / SCP opportunities</p> <p>Limited skills or expertise with accounting, budgeting and planning capacity and poor entrepreneurial mind-sets</p>
Regulatory and Legal Frameworks	<p>Lack of market-based incentives / rebates for investment in cleaner production especially challenging for smaller scale SP projects (e.g. disincentive of continual government subsidies for fossil fuels or low effluent charges), complicated by variations in federal versus provincial regulations</p> <p>Immediacy of SCP investment (e.g. in wastewater treatment and management) not yet recognised by private sector</p> <p>Low levels of compliance with international standards (e.g. Leather Working Group) threatens export-relevance/value of SMEs</p>

3.4 Summary of green finance for SMEs gap analysis

The groundwork has been laid for Pakistan’s financial sector to implement policies and align their SME lending portfolios with green financing objectives. This is evidenced by the analysis of key actors and activities, available product offerings and major challenges facing both SMEs and financial institutions in accessing and facilitating access to green finance for SCP investments. However, further multi-stakeholder engagement is required to expand opportunities and transform Pakistan’s banking and textile/leather sectors.

Many banks have already taken initial steps to implement the recommendations of the SBP’s GBGs, including for environmental risk management and green business facilitation. Some banks have benefited from the trainings provided by the SBP as well as other experts, including government ministries, such as the Ministry of Climate Change (MOCC) and its Climate Finance Unit, as well as private sector consultants. Additionally, some banks have hired environmental coordinators in their head offices. Stakeholder interviews indicate a strong interest among banks to develop their green financing activities further, including through product development that supports textile/leather SMEs to investment in SCP.

However, banks also note challenges with being first-movers in the implementation of green banking activities, including JS Bank’s representative who commented that “Green Banking Guidelines (GBGs) are comprehensive but... as one of the only banks to implement these, it is not very easy to implement them.” Additionally, despite the significant strides made by financial institutions in laying the groundwork for green financing for (textile/leather) SMEs, intermediaries have indicated that SMEs have not seen changes in financing that is available to these enterprises since the release of the GBGs in 2017.

Figure 13: Gaps in green financing for textile/leather SMEs in Pakistan



Accordingly, there are persistent barriers that must be addressed and opportunities harnessed by key players – including the government actors, financial institutions and intermediaries reviewed in this chapter in included in annex 3 – in order to make available and disburse capital for SCP investments in the textile/leather sectors. In summary, some of the key gaps (summarised in figure 13) in green financing for textile/leather SMEs in Pakistan include:

Conducive ecosystem:

Gaps in coordination among ecosystem actors, particularly from the government, financial institutions and intermediaries. Despite promising examples of support provided by regulators, consultants and intermediaries working directly with banks and SMEs, further coordination among and capacity building support to actors is required to align their activities with the green financing activities, influenced by due diligence pressures throughout supply chains and desires for effective environmental compliance.

Pipeline of bankable green investments:

Lack of tailored business advisory and financing for SMEs to learn about and invest in SCP. SMEs in the textile/leather sectors continue to struggle to access tailored financial products and capacity building services to identify and invest in SCP measures.

Green finance products for textile/leather SMEs:

Limited green business facilitation and integration of environmental risk management into banks' core activities. Banks generally struggle to define and align internal product development processes with green investment objectives, especially as these objectives relate to sector-specific environmental risk assessment and lending decisions.

Tailored solutions and the active involvement of public and private sector actors are required to fill these gaps and facilitate green financing by financial institutions for textile/leather SMEs in Pakistan. The following chapter will identify preliminary recommendations and look to global and regional examples to inform the development of such green financing solutions in Pakistan.

4. PATHWAYS FOR FACILITATING GREEN FINANCE FOR TEXTILE/LEATHER SMES IN PAKISTAN – RECOMMENDATIONS AND BEST PRACTICE EXAMPLES

This final chapter will (4.1) outline preliminary recommendations for further action that target core stakeholder groups, namely government actors, intermediaries and financiers. These recommendations will refer throughout to global and regional best practice examples relevant to green finance instruments for SMEs (including in the textile/ leather sectors). This study will close with (4.2) reference to the outlook and opportunities for future stakeholder engagement.

4.1 Key recommendations

Based on the gaps analysed and with reference to best practice examples from the region and globally, this chapter provides a running list of provisional recommendations for the advancement of green financing for textile/ leather SMEs Pakistan. The draft recommendations included in this section aim to overcome (1) gaps in coordination among ecosystem actors, (2) SMEs' lack of access to tailored capacity building and financing for SCP, and (3) somewhat limited engagement of Pakistani banks to-date in environmental risk management and green business facilitation, particularly as it relates to green financing for textile/leather SMEs. These recommendations were refined during the project's dissemination workshops and will be built on further during the formulation of a green financing instrument follow-on project, proposed in annex 4. The prioritisation and implementation of targeted recommendations, and pathways to implement solutions around these recommendations, depends on the inputs of various stakeholders from the key target groups during follow-on activities.

4.1.1 For the government

Key recommendations targeting government actors – particularly financial and environmental agencies and regulators – could be acted on through creating a stronger role for the Ministry of Climate Change (MOCC) at the federal level in coordination with environmental protection agencies (EPAs) to the provincial level and the SBP, while leveraging the judicial powers of environmental tribunal and others. These recommendations include:

Streamline and strengthen regulatory regime and compliance monitoring.

The interviewed banks indicated support for a future move by the government i.e. to make the implementation of these guidelines mandatory.

Additionally, environmental laws and penalties could be streamlined, specifically across provincial EPAs/EPDs jurisdictions, to support both banks and SMEs in order to easily understand and comply with these regulations. Stakeholders also noted a general need to strengthen coordination between governmental departments (from the national to provincial levels) and banks in translating environmental sustainability impacts or contributions into financial terms that banks can understand and thereon act.

Develop incentives for green financing that extend beyond renewable energy (and energy efficiency) financing. The stakeholder interviews revealed different perspectives on effective government incentives, for example subsidies or rather emphasising the more stringent enforcement of environmental laws. Generally, further public sector and government agency efforts could incentivise banks to expand their onward lending to specialised sectors or a wider spectrum of SCP investments, including for textile/leather SMEs.

Best practice spotlights – green banking and SCP policies

Brazil's green protocol and environmental (and social) risk assessments

Brazil's national development bank, the Brazilian Development Bank (BNDES), has played a central role in delivering strong incentives for private banks to adopt industry standards for the mitigation of environmental risks. The BNDES' role is supported by national legislation (Green Protocol) that imposes liabilities on banks for their indirect or direct responsibility in clients' environmental regulation violations. Over the years, this protocol has been expanded to include private financial institutions' commitments to social and environmental standards in their lending decisions. In 2014, the central bank in Brazil set out to develop mechanisms to regulate the social and environmental risk assessments of credit processes, wherein banks are encouraged through voluntary and compulsory mechanisms to develop policies relative to their size and position in the banking sector as well as business model (UNEP 2016).

China's Green Credit Guidelines (GCGs)

The Chinese government released their Green Credit Guidelines in 2012 – building on the Green Credit Policies developed in 2007 – that oblige banks to address environmental sustainability issues at the top management and board levels by integrating environmental and social considerations into the full lending cycle. These guidelines were paired with a robust evaluation model, incorporating the IFC's Performance Standards. Two major banks in China, the China Development Bank and Commercial Bank of China established a combined green credit loan portfolio totalling nearly USD\$200 billion by 2011, encompassing areas of renewable energy, waste treatment and pollution controls. Despite these achievements, the IFC has noted that the guidelines' lack of mandatory reporting changes the ability of regulators and others to measure financing flows (IFC 2012; WWF 2012; Inno4sd 2019).

Vietnam's Green Credit Guidelines (GCGs)

Vietnam took lessons from the China example to develop their own Green Credit Guidelines (World Bank 2009; IFC 2018b). In 2015, the government of Vietnam issued policies and guidelines for sustainable finance in line with the implementation of the 2014-2020 National Action Plan for Vietnamese green growth. The three core green finance regulations currently under enforcement in Vietnam include (1) the State Bank of Vietnam's (SBV) directive on promoting Green Credit Growth and environmental and social risks management in credit granting activities (2015), supported by an action plan enlisting the banking sector to support implementation of the National Green Growth Strategy until 2020. The directive requires financial institutions to establish systems for and report on environment and social risk management (ESRM). (2) The SBV published a circular in 2016 providing general borrowing and lending rules to FIs, including for compliance with environmental laws and regulations. (3) In 2017, a Green Project Catalogue (defining green sectors or projects), guidelines and requirements of statistics on green credit applied for credit institutions and a master credit programme (financial incentives for green projects relating to interest rates and terms) were introduced.

China's environmental law regime and SCP policies

The Chinese government instituted stricter environmental laws in 2015, including replacing formerly inconsistent and marginal fines with high penalties. These penalties aimed to incentivise financial investments in new equipment and machinery for pollution prevention (Tiezzi 2014; Anderson 2017). The revised law has resulted in over USD\$600 billion being dedicated to renewable energy investments (Anderson 2017). The environmental law regime has been supported by the government's inauguration of the Green Manufacturing Association of China (2017), driving the 'made in China 2025 plan' to modernise factories across the country. Importantly to note, these efforts have resulted in some factories closing due to lack of willingness or inability to afford associated costs (Roxburg 2017). Additional revisions were made by the Chinese government in 2018 to strengthen environmental policy (SgT 2018).



The revised law has resulted in over
USD\$600 billion
being dedicated to
renewable energy investments
(Anderson 2017).

Support training programmes for regulators, financiers, intermediaries and SMEs around green financing and SCP, including through the expansion of cleaner/sustainable production institutes and trainings. Further efforts by the public sector (including financial regulators) to educate actors on defining and identifying green investments could ensure that all stakeholders have the prerequisite knowledge and capacities to invest in SCP measures. This could involve investing public resources in growing the pool of green finance experts (lawyers, consultants, managers) for the administration of laws and policies for green banking and SCP implementation.

Expand technical assistance to banks to develop activities in line with the Green Banking Guidelines. Greater availability of technical assistance, facilitated or supported by the SBP among others, would help to ensure that all banks are in the position to develop and implement green financing policies and processes, especially for green business facilitation and environmental risk management.

Facilitate monitoring, verification and reporting support for banks to assess their green finance portfolios. In order to address issues that banks are experiencing with assessing the compatibility of their existing lending portfolios with green investments, the government could play a more active role in aggregating data on SME lending portfolios and GBG implementation across banks.

Draft sector-specific recommendations (or mandates) for green financing, including for the textile/leather sectors. In response to comments from the banks interviewed, the Pakistani government (likely through the SBP) could support and develop sector-specific guidance to prioritise, which (1) sectors in particular require financing (assessed based on projected environmental and economic returns); and (2) projects or investments within these sectors that are proven. Here, banks themselves are generally best positioned to develop clear assessment frameworks for expected costs and returns on investments. However, government support could help banks to overcome a general concern with lack of incentives and structures for banks to move beyond setting broad green financing policies to develop their core business in alignment with green banking. Additionally, these sector-specific financing recommendations could benefit from sector-specific environmental quality standards, stemming from the national and provincial EPAs.

4.1.2 For intermediaries

Preliminary recommendations for intermediaries – targeting entities that work directly with textile/leather SMEs in Pakistan such as industry and trade associations and cleaner production centres – are:

Educate SMEs on green financing opportunities and the business case for investing in SCP

Solutions are needed to ensure that more SMEs, including within the textile/leather sectors, have access to education and capacity building on SCP to adopt relevant technologies and support installation and monitoring. Furthermore, as opportunities for green financing and tailored financial products in the SME sector grow, solutions are required that ensure SMEs across Pakistan, including in rural areas, are aware of and have access to financing opportunities. This must be paired with strong incentives (including financial incentives) to invest in environmental sustainability as a small business.

Replicate successful capacity building for SMEs within sustainable and cleaner production

In Pakistan, there are many positive examples of SMEs receiving the support required to assess and mitigate the environmental impacts of their business models, especially with cleaner production support for these SMEs dating back to 1997. Further efforts could be made to collate these best practices and share them across SMEs operating across the country, and potentially across sectors.

Support the development of tailored financial products for SMEs to invest in SCP

Considering the low levels of knowledge among financiers of the required SCP investments and payback periods, intermediaries who are working directly with SMEs can play an increasing role in aggregating demand and building the business case for financing SCP by SMEs, including within the textile/leather sectors. This could involve data collection or sharing of existing data on desired investments, ticket sizes and payback periods while also supporting banks to develop suitable collateral and other lending requirements that match what information and documents are available to SMEs.

4.1.3 For financiers

Importantly, based on desk research and stakeholder interviews, initial recommendations for financial institutions in Pakistan (particularly targeting commercial banks) include:

Integrate environmental risk management into the institution's core business

Environmental risk management guidelines included in the GBGs are meant to (but not required to) relate to banks' core business, thereby influencing financiers' traditional credit risk assessment. However, evidence suggests that the integration of environmental risk management activities has not necessarily influenced lending assessments for clients. Banks have experienced internal barriers to implementing such models across their SME financing or other corporate financing departments. The SBP has indicated its interest in furthering the integration of environment into credit risk scorecards, potentially through making this a mandatory requirement.

Build internal institutional capacities to respond to environmental risks and green financing opportunities

According to one interviewee engaged in this study, previously banks in Pakistan had climate assessment teams who had a solid understanding of environmental laws and were reasonably well positioned to provide advisory services to borrowers. In recent years, banks have largely incorporated these units within their investment banking groups where the employees tend to lack the knowledge and capacities to provide advisory services on topics of green banking. Banks require solutions that build their technical understanding of green financing projects and compliance with environmental regulations. Such solutions could include the creation of more education and job related opportunities within the space of green finance, particularly as it relates to SME financing.

Best practice spotlights – capacity building for financial institutions

Asian Cleantech SME Financing Network (ACMFN)

The four-year multi-country ACMFN project, co-financed by the European Union's SWITCH-Asia Green (SAG) and completed in 2019, aims to build a cleantech financing ecosystem to support smaller enterprises' investments in cleantech. A core component of this project involved capacity building for financial institutions and followed a hands-on toolkit-based methodology that enlisted representatives of financial institutions to co-create solutions and processes that initiate green financing activities in their banks. In engaging the financial sector, ACMFN's flagship report series offers insights in the primary challenges faced by MSMEs and financial institutions across the region (ACMFN 2019).

Financing sustainable production in Bangladesh’s textile sector

The hands-on approach to capacity building for financial institutions adopted in the ACMFN project is similar to that of the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) project implementation in Bangladesh wherein consultation with financial institutions through co-creation methodologies resulted in tailor-made green financial products for promoting sustainable production in the textile sector.

Green Digital Finance Alliance (GDFA)

The GDFA, established in 2016 with the support of the UN Environment Programme, aims to leverage digital innovations and technologies to enhance financing for sustainable development. The GDFA’s activities include knowledge sharing and research, networking and advocacy. The alliance brings together fintechs, financial actors, policy-makers and others to collaboratively promote and pilot innovative digital financing solutions that address major challenges to sustainable development. One area of the alliance’s recent work relates to automating green metrics, building on the EU’s sustainable financing taxonomy by spurring innovation partnerships and widespread data harvesting (GDFA 2020a). Furthermore, the alliance has highlighted the UN Secretary General’s Task Force on Digital Financing of the SDGs (TFDF) and the task force’s ongoing stock-take of innovative sustainable financing solutions and regulatory landscape, which will be applied to refine the GDFA’s Sustainable Digital Finance Readiness Benchmark (GDFA 2020b).

Define green investments and banking while also collating data on current portfolio alignment with green financing

Stakeholder interviews in particular indicated that some banks likely are already financing what could be considered “green” investments, for example, financing for energy efficient looms or wastewater treatment plants by textile/leather SMEs. There are various examples from the region of effective establishment of Common Effluent Treatment Plants (CETPs) (UNIDO 2018), with the IFC Partnership for Cleaner Textile (PaCT) exploring further opportunities in Pakistan (IFC 2018). Banks could benefit from first defining what are green investments within the bank, then assessing their current portfolio status to identify the degree of alignment with these objectives. This could prove useful in ensuring that banks leverage their core capacities and existing institutional structures in expanding their green banking portfolios.



STAKE HOLDERS



Banks likely are already financing what could be considered “green” investments.

Best practice spotlights – defining green investments

Indonesia's roadmap for sustainable finance

The roadmap for sustainable finance in Indonesia (2015-2019) offers examples of green assets and provides definitions of sustainable businesses plus criteria for sustainable projects (OJK 2014). This roadmap was further articulated to financial institutions within the technical guidelines for banks on the implementation of OJK regulation about sustainable finance (OJK 2018). These efforts support financiers to clearly define and identify opportunities for investments in sustainable business activities across sectors, setting out clear criteria. In particular, the technical guidelines offered to banks mapped definition of categories with examples for investments in sustainable business activities by sector.

EU taxonomy for sustainable financing

The European Union's sustainability financing taxonomy, led by the technical expert group on sustainable finance (TEG), offers a structured approach to developing a framework for identifying green and climate action objectives and aligning financing with these objectives (EU 2018; EU 2019). According to the taxonomy, these objectives range from explicit climate change action (level 1), to broader environmental sustainability contributions (level 2) and broader environmental and social sustainability (level 3). The taxonomy also provides an approach to identify these environmental objectives as they relate to specific sectors and business activities. This taxonomy is intended as a classification tool primarily to support investors and companies to make informed investment decisions, with wider applications relevant to the development of comprehensive green investment definitions and decision-making processes that are financier-specific.

Asia Sustainable Finance Initiative (ASFI) knowledge hub

The ASFI knowledge hub (ASFI 2020) collates science-based, regionally relevant resources on sustainable finance, many of which aim to support financial institutions in expanding their sustainable finance activities. This includes the UNEP FI impact analysis tools (UNEP FI 2020), which, in part, offer banks step-by-step guidance for assessing the sustainability of their portfolios in line with the principles of responsible banking. Furthermore, this database includes resources and guidance on ESG risk assessment. The SCRIPT Policy Benchmarking Tool (SCRIPT 2019), created in partnership with the WWF, supports financial institutions to compare their sustainability policies for specific commodities with the wider financial sector and receive recommendations for improvement. Additionally, the step-by-step guide for banks on integrating Natural Capital in Risk Assessments (NCFA and PwC 2018), published by the Natural Capital Finance Alliance (NCFA) in collaboration with PwC, helps banks to better understand how environmental change may affect their portfolios.

Design tailored products that enable SCP investments by SMEs, particularly textile/leather SMEs. Tailored product development, perhaps learning from intermediaries that are familiar with the desired investments, payback periods and financial data available to textile/leather SMEs would ensure that banks are able to tap into the significant business development opportunity posed by green banking in Pakistan.

Share knowledge and best practices among banks on green financing. This study indicates that banks have primarily been operating in isolation from each other to develop green financing policies and approaches. Interviewed banks noted that working independently from other banks to develop policies and approaches in line with the GBGs has proven somewhat inefficient, especially to first-movers.

4.2 Future of green finance for textile and leather SMEs in Pakistan

This study and its gap analysis revealed that financial institutions in Pakistan are engaged and have made significant progress in implementing green financing activities. Many of these banks have also indicated a strong commitment to the expansion of the SBP's GBGs. A JS Bank representative expressed:

“Hopefully, in the very near future, we expect these [Sustainable Banking] guidelines to be turned into regulations. Once they are, all banks will have to implement them.”

This mirrors a general interest and perceived need among many of the stakeholders interviewed to further incentivise green financing in Pakistan, including for textile/leather SMEs to invest in SCP. Echoing this desire, an NBP representative noted:

“With SMEs, we would be very interested to see how we can work together on that with the WWF ILES project and its green financing component.”

In order to build on this momentum, the preliminary recommendations above aim to engage actors in multi-stakeholder processes and initiatives to facilitate green financing, including for textile/leather SMEs to invest in SCP. Based on the gaps identified and with reference to global and regional best practice examples, a summary of proposed multi-stakeholder recommendations for government agencies and regulators, financiers and SME intermediaries identified in this study is provided in figure 14.

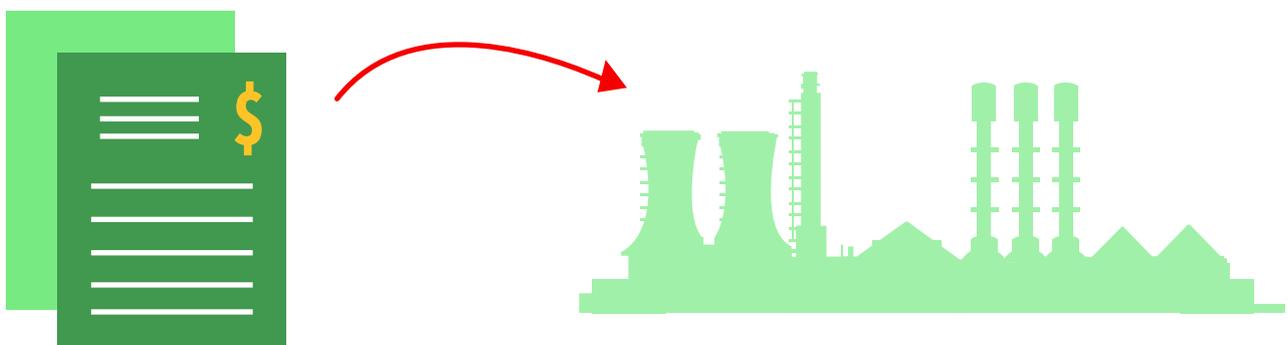
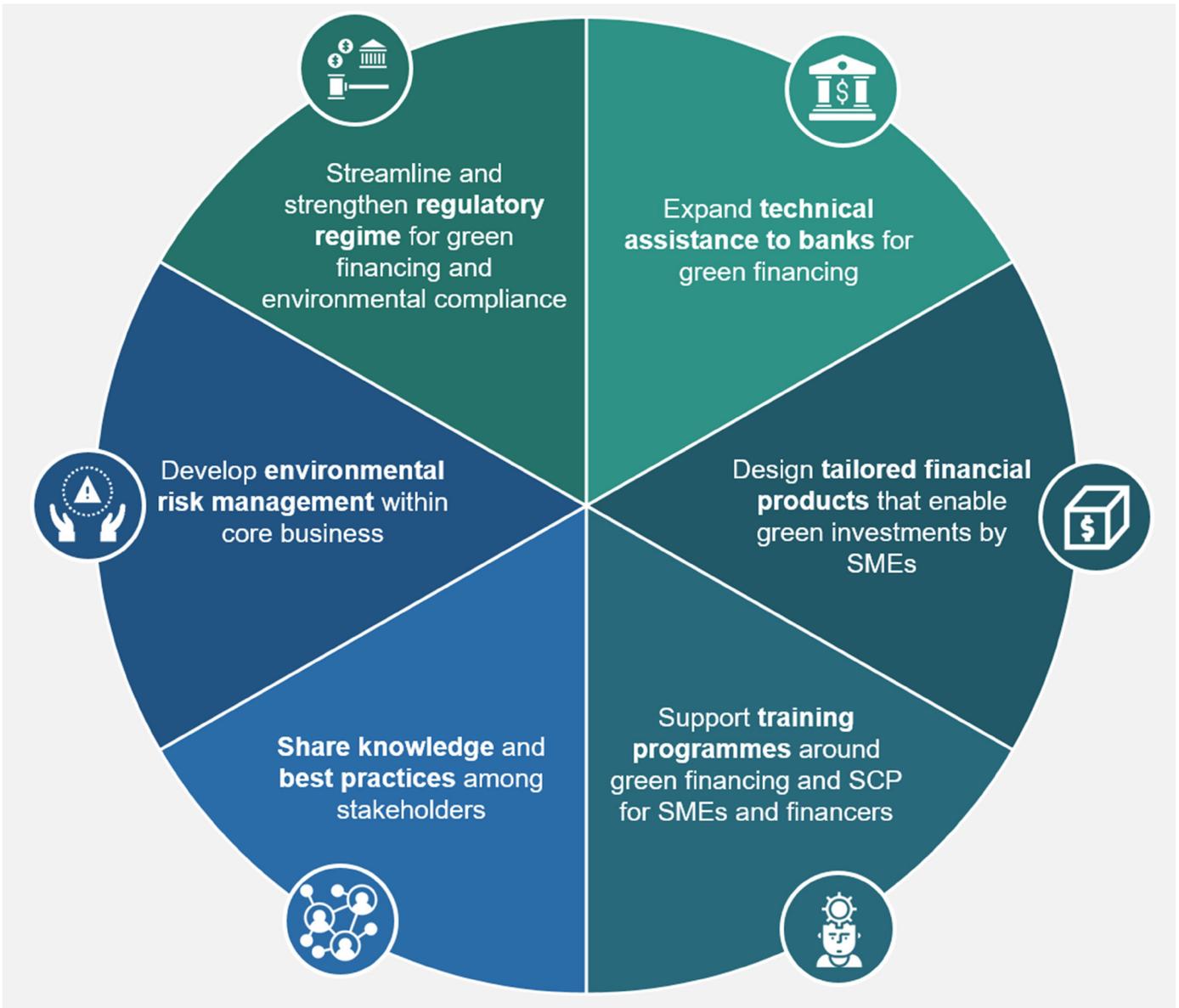


Figure 14: Summary of preliminary recommendation areas



Public and private sector actors engaged during the completion of this study indicated that the key three priorities, in order of importance, while moving forward include (1) streamlining and strengthening the regulatory regime, (2) expanding technical assistance to banks for green financing, and (3) designing tailored financial products that enable green investments by SMEs. Additionally, stakeholders strongly emphasised the need to continue discussing and collaborating through interactive sessions that share best practices and streamline coordination between all actors.

4.2.1 Conclusions and next steps

In light of these trends and growing momentum for green financing in Pakistan, the results of this study will be shared with core private and public sector actors (following on from the dissemination workshops). This study will serve the basis for the future development of comprehensive Green Credit Guidelines (GCGs) supported by tailored financial mechanisms for SMEs to invest in environmental sustainability, particularly in Pakistan's textile/leather sectors. Following on from this report, core actors will be engaged to collaboratively assess and discuss the results of this gap analysis and relevance of the preliminary

recommendations. These stakeholders, particularly financial institutions, will be enlisted to formulate a green financing instrument (or Green Credit Guidelines), which overcomes the overarching challenges presented in this report and:

- (1) Improves the buy-in and institutional capacities of financial institutions to absorb and disburse capital through tailored green financing products for SMEs; and**
- (2) Builds the knowledge and financial management capacities of SMEs to better access and allocate debt-based financing for green investments.**

Proposed Terms of Reference (TORs) for formulation of a green financing instrument in Pakistan to guide this process of Green Credit Guideline (GCG) development are included in annex 4. Building on the major gaps identified and on the preliminary recommendations included here to address these gaps, further engagement with stakeholders (from private and public sector) is required to collaboratively co-create green financing solutions that are responsive to the constraints, resources and expertise of key regulators, financiers and industry representatives. This process can benefit from solution prototyping methodologies designed and implemented across regional and global contexts within green finance and SME financing project implementation.

REFERENCES

- ACMFN 2019: Flagship Report: A Snapshot of the China Cleantech Financing Ecosystem. Retrieved from <http://www.acmfnc.com/resources/publications/acmfnc-flagship-report-series-provides-a-snapshot-of-the-chinese-indian-and-indonesian-cleantech-financing-ecosystem/>.
- ADB Review 2020: News from the Asian Development Bank: Pakistan Resident Mission. Retrieved from <https://www.adb.org/sites/default/files/page/502116/adb-review-pakistan-january-2020.pdf>.
- ADBI 2018: Green Finance in Pakistan: Barriers and Solutions. October 2018.
- Anderson, Fi 2017: Saving China with Sustainable Fashion. Retrieved from <https://www.notjustalabel.com/editorial/saving-china-sustainable-fashion>.
- APTMA 2020: All Pakistan Textile Mills Association. Retrieved from <https://www.aptma.org.pk/>.
- APTMA 2014: Growth of Cotton Textile Industry in Pakistan. Karachi: APTMA, Updated February 15, 2014. Retrieved from <https://www.aptma.org.pk/>.
- ASFI 2020: ASFI Knowledge Hub. Asia Sustainable Finance Initiative, 2019. Retrieved from <https://kh.asfi.asia/>.
- BAT 2014: Sustainability Guideline for The Banking Sector. Banks Association of Turkey. Retrieved from <https://www.tbb.org.tr/en/Content/Upload/Dokuman/137/Sustainability-Guidelines-for-The-Banking-Sector.pdf>.
- Batool, Samavia F. S. 2017: Mapping the cotton value chain in Pakistan: A preliminary assessment for identification of climate vulnerabilities & pathways to adaptation. Islamabad: Sustainable Development Policy Institute.
- Buljan, Jakov and Ivan Kral 2015: The framework for sustainable leather manufacture. Vienna: UNIDO. Retrieved from https://leatherpanel.org/sites/default/files/publications-attachments/the_framework_for_sustainable_leather_manufacturing_2nd_edition_2019_f.pdf.
- Cleaner Production Institute (CPI) 2013. Environmental Improvement in Pakistan The Way Forward. Program for Industrial Sustainable Development (PISD-II).
- DFCD 2019: The Dutch Fund for Climate and Development open for business, International launch at UN climate change conference (COP25) in Madrid, 9 December 2019. Dutch Fund for Climate and Development (DFCD). Retrieved from <https://thedefcd.com/2019/12/09/the-dutch-fund-for-climate-and-development-open-for-business/>.
- Ellen MacArthur Foundation 2017: A New Textiles Economy: Redesigning fashion's future. Retrieved from https://www.ellenmacarthurfoundation.org/assets/downloads/publications/A-New-Textiles-Economy_Full-Report_Updated_1-12-17.pdf.
- EU 2019: Using the Taxonomy. Retrieved from https://ec.europa.eu/info/publications/sustainable-finance-teg-taxonomy_en.
- EU 2018: Financing a Sustainable European Economy. Retrieved from https://ec.europa.eu/info/publications/sustainable-finance-teg-taxonomy_en.
- Farooq, A. 2018: Vulnerability Risk Assessment to Gauge Impact of Inefficient and Unsustainable Practices in the Leather and Textile Sectors. WWF-Pakistan.
- GDFa 2020a: Automating Green Metrics. Green Finance Digital Alliance. Retrieved from <https://greendigitalfinancealliance.org/automating-green-metrics/>.

- GDFa 2020b: Sustainable Digital Finance Readiness. Green Finance Digital Alliance. Retrieved from <https://greendigitalfinancealliance.org/sustainable-digital-finance-readiness/>.
- GIZ 2019a: Improving labour standards in Pakistan's textile industry. Project description.
- GIZ 2019b: Promoting Sustainability in the Textile and Garment Industry in Asia (FABRIC). Retrieved from <https://www.giz.de/en/worldwide/34136.html>.
- GIZ 2019c: Renewable Energy and Energy Efficiency (4E) – Phase II. Retrieved from <https://www.giz.de/en/worldwide/68953.html>.
- GIZ 2018: Social and labour standards in the textile and garment sector in Asia. Retrieved from <https://www.giz.de/en/worldwide/34136.html>.
- GIZ 2016: Implementation of Social Standards in the Textile and Garment Industry in Punjab. Retrieved from <https://www.giz.de/en/worldwide/32073.html>.
- Hannak, Dr. Jürgen, Dr. Mohammad Abbas Uddin, Mohammad Azad Rahman Siddique, Jana Hack, and Franziska Sophie Kohler 2019: Addressing SCP in the Fashion and Apparel Sector: Scoping Study. EU SWITCH- Asia Sustainable Consumption and Production Facility (SCPF), EU.
- Hemkhaus, Morton, Jürgen Hannak, Peter Malodobry, Tim Janßen, Nora Sophie Grifahn and Christina Linke 2018: Circular Economy in the Textile Sector. Study for the German Federal Ministry of Economic Cooperation and Development (BMZ) and the Partnership for Sustainable Textiles. Berlin: GIZ.
- Hengstmann, Dr Reiner 2020: Scoping Study on the European Union Standards in Textile and Leather Sectors in Pakistan. ILO and WWF-Pakistan. Retrieved from https://d2ouvy59p0dg6k.cloudfront.net/downloads/final_eu_scoping_study_1.pdf.
- IFC 2019: Green Finance: A bottom-up approach to track existing flows. Retrieved from <http://documents.worldbank.org/curated/en/788041573021878350/Full-Report>
- IFC 2018a: Gap partners with IFC to cut energy use in Pakistan Textile sector. News & Events. Retrieved from <https://www.textilepact.net/news-and-events/gap-partners-with-ifc-to-cut-energy-use-in-pakistan-textile-sector.html>.
- IFC 2018b: Sustainable Banking Network (SBN) Country Progress Report – Vietnam. Retrieved from <http://documents.worldbank.org/curated/en/827551520938968526/pdf/WP-VN-SBN-Country-Progress-Report-Vietnam-PUBLIC.pdf>.
- IFC 2016: Pakistan: Staff Report for the 2015 Article IV Consultation, Ninth Review Under the Extended Arrangement, Request for Waivers of Nonobservance of Performance Criteria, and Request for Modification of a Performance Criterion-Press Release; Staff Report; and Statement by the Executive Director for Pakistan.
- IFC, NPO Pakistan and Cleaner Production Institute (CPI) 2016: Sustaining Growth Cleaner Production in Pakistan.
- IFC 2012: China Takes Green Lending to a New Level. IDC News. Retrieved from https://www.ifc.org/wps/wcm/connect/news_ext_content/ifc_external_corporate_site/news+and+events/news/china+takes+green+lending+to+a+new+level.
- Inno4sd 2019: Green Credit Guidelines in China. 18 April 2019. Retrieved from <https://www.inno4sd.net/green-credit-guidelines-in-china-484>.
- Linstead, Conor A. H. 2015: Water Footprint of Key Industrial Sectors in Punjab, Pakistan. WWF Pakistan, SWITCH ASIA Project.
- Memon, Noor Ahmed 2010: Pakistan's textile processing industry. Pakistan Textile Journal, 2010.

- Ministry of Textile Industry 2014: Textile Policy 2014-19. Government of Pakistan.
- NCFA and PwC 2018: Integrating Natural Capital in Risk Assessments: A step-by-step guide for banks, Natural Capital Finance Alliance and PricewaterhouseCoopers (Geneva, Oxford and London), 2018. Retrieved from <https://www.globalcanopy.org/publications/integrating-natural-capital-risk-assessments-step-step-guide-banks>
- Nemec, D. 2011: Solid Waste Management options for the tannery industry. Dhaka: UNIDO.
- Noor, J.A., H. Ijaz and A. Zafar 2018: Economic Impacts and Health Implications of Non-Compliance of the Leather and Textile Industry. WWF-Pakistan.
- OECD 2018: OECD Due Dilligence Guidance for Responsible Supply Chains in the Garment ans Footwear Sector. Paris: OECD Publishing Paris.
- OJK 2014: Sustainable Finance Roadmap in Indonesia for the Period 2015-2019. Government of Indonesia. Retrieved from <https://www.ojk.go.id/en/berita-dan-kegiatan/publikasi/Pages/Sustainable-Finance-Roadmap-in-Indonesia-for-the-Period-2015-2019.aspx>.
- OJK 2018: Technical Guidelines for Banks on the Implementation of OJK Regulation POJK Number 51/POJK.03/2017. Government of Indonesia.
- Pakistan Bureau of Statistics (PBS) 2016: Leather Sector of Pakistan. Retrieved from <http://www.pbs.gov.pk/>.
- PBS 2011: Pakistan Statistical Year Book 2011. Retrieved from <http://www.pbs.gov.pk/>.
- Pakistan EPA 1997: The Pakistan Environmental Protection Act 1997. Government of Pakistan. Retrieved from <http://www.na.gov.pk/uploads/documents/Pakistan=Environmental-Protection-Act-1997.pdf>.
- Pakistan Footwear Manufacturers Association 2018: Introduction. Retrieved from <https://pakfootwear.org/pakistan-footwear-industry/>.
- Pakistan Tanners Association (PTA). Introduction. Retrieved from <https://www.pakistantanners.org/index.html>.
- PTA 2014: PTA Industry Statistics. Pakistan Tanners Association, Updated 2014. Retrieved from <https://www.pakistantanners.org/>.
- Pakistan, C. P. 2013: City Wide Partnership for Sustainable Water Stewardship in SMEs in Lahore, Pakistan. Lahore: SWITCH-Asia, European Union & WWF.
- Pakistan, W. 2007: Pakistan's Water at Risk, A special report. WWF-Pakistan.
- Pakistan Institute of Trade and Development (PITAD) 2012: Working Papers. Retrieved from <http://www.pitad.org.pk/Pub.php>.
- Roxburg, Helen 2017: Textile brands get behind China's green shift. Retrieved from <https://www.chinadialogue.net/article/show/single/en/10317-Textile-brands-get-behind-China-s-green-shift>.
- Samad, G., Gulzar, W and Ahmed, V. 2015: Environmental Regulations and Compliance in the Textile Processing Sector in Pakistan: Empirical Evidence. Published by the South Asian Network for Development and Environmental Economics (SANDEE). Working Papers: 98.
- Sánchez-Triana, S. E., Ernesto 2014a. Cleaning Pakistan's Air. Washington D.C.: The World Bank.
- Sanchez-Triana, E. 2014b: Cleaner production in Pakistan's leather and textile industry. Journal of Cleaner Production.
- Sanchez-Triana, Ernesto, et al. 2012: Green Industrial Growth: Mainstreaming Environmental Sustainability in Pakistan's Industrial Sector. Washington DC: World Bank Group.

SCRIPT 2019: SCRIPT: Sustainability, risk management and the future of seafood webinar. 14 Feb 2019. Retrieved from <https://medium.com/global-canopy/script-sustainability-risk-management-and-the-future-of-seafood-webinar-25a8a361bcd4>.

SBN 2019: Sustainable Banking Network (SBN) Country Progress Report – Pakistan. Retrieved from https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/company-resources/sustainable-finance/sbn.

SBP 2010: Mark-up Subsidy and Guarantee Facility for the Rice Husking Mills in Sind. Retrieved from <http://www.sbp.org.pk/Incen-others/pdf/Rice%20Husking.pdf>.

SBP 2017. Green Banking Guidelines Issued vide IH&SMEFA Circular # 08 dated October 07, 2017. Retrieved from https://www.ifc.org/wps/wcm/connect/ce18b318-4d4c-4f13-b4a0-0fd489f78d63/Pakistan_GreenBanking-Guidelines_October2017.pdf?MOD=AJPERES&CVID=IYBRGy0.

SgT 2018: China Environmental Policy and the Textile Industry 2018. Retrieved from <https://www.sgtgroup.net/textile-quality-management-blog/china-environmental-policy>.

Sial, Sardar Aasif 2018: Review of Existing Environmental Laws and Regulations in Pakistan, WWF-Pakistan 2018.

SMEDA 2019: National SME Policy 2019-24 (Revised SME Policy 2007). Small and Medium Enterprise Development Agency (SMEDA), Ministry of Industries, Production & Special Initiatives, Government of Pakistan. Retrieved from <http://moip.gov.pk/moip/userfiles1/file/SME%20Policy%202007.pdf>.

Textile Commissioner's Organisation (TCO) 2018. Performance of Textile Industry. Textile Commissioner's Organisation, Karachi, Government of Pakistan. Retrieved from <https://www.tco.com.pk/documents/de6897176d.pdf>.

com.pk/documents/de6897176d.pdf.

Trade Development Authority of Pakistan (TDAP) 2020: TDAP Statistics. Retrieved from <https://www.tdap.gov.pk/tdap-statistics.php>.

TDAP 2016: TDAP Reports: Leather Sector. Retrieved from https://www.tdap.gov.pk/doc_reports/Leather%20Final.pdf.

Textilbuendnis 2018: Wassereffizienz in der Textilindustrie in Pakistan (WETI). Retrieved from <https://www.textilbuendnis.com/projekte-weltweit-2/wassereffizienz-in-der-textilindustrie-inpakistan-weti/>.

Tiezzi, Shannon 2014: China revises Environmental Law for the first time since 1989. Retrieved from <https://thediplomat.com/2014/04/china-revises-environmental-law-for-the-first-timesince-1989/>.

UNEP 2016: Green Banking Policy. Retrieved from http://unepinquiry.org/wp-content/uploads/2016/09/10_Greening_Banking_Policy.pdf.

UNEP FI 2020: UNEP FI Portfolio Impact Analysis Tool for Banks. UNEP Finance Initiative. March 2020. Retrieved from <https://www.unepfi.org/publications/positive-impact-publications/portfolio-impact-tool-for-banks/>.

UNEP and Ministry of Climate Change Pakistan 2017: National Action Plan on Sustainable Consumption and Production in Pakistan. Retrieved from <https://www.oneplanetnetwork.org/initiative/national-action-plan-sustainable-consumption-and-production-pakistan>.

UNIDO 2019b: Transforming the leather and sugar processing industries towards low emissions and climate resilient development paths in Pakistan. Retrieved from <https://open.unido.org/projects/PK/projects/160069>.

UNIDO 2018a: Tannery Effluent Treatment. Leather Panel. Retrieved from <https://leatherpanel.org/publications-categories/tannery-effluent-treatment>.

UNIDO 2018b: Kasur Tannery Pollution Control Project – Pakistan. Retrieved from <https://leatherpanel.org/content/kasur-tannery-pollution-control-project-pakistan>.

World Bank 2009: Bringing Finance to Pakistan’s Poor: Access to Finance for Small Enterprises and the Underserved.

WWF 2012: WWF welcomes China’s green credit guidelines. Posted on 24 February 2012. Retrieved from https://wwf.panda.org/wwf_news/?203670/WWF-welcomes-Chinas-green-credit-guidelines.

WWF Pakistan (WWF-PK) 2015a: From Waste to Sustainability: Making a Business Case for Water Conservation in Textile, Sugar, Paper & Leather Sectors in Pakistan. Retrieved from http://67.222.34.53/wsp/pdf/12416_wastesustainability.pdf.

WWF Pakistan (WWF-PK) 2015b: Pakistan Environmental Protection Agency “Draft Textile Sector Report by Activity Based Capacity Development Project”.

WWF Pakistan (WWF-PK) 2014: Training Manual on BWMPs in Textile Sector of Pakistan. Retrieved from https://d2ouvy59p0dg6k.cloudfront.net/downloads/textilemanual_2.pdf

Further policy and framework references are included in Annex 2.

ANNEXES

Annex 1: Stakeholder interview guide

Annex 2: Policy and regulatory framework landscape

Annex 3: Stakeholder mapping

Annex 4: Specific terms of reference for formulation of a Green Financing Instrument (GFI) in Pakistan

ANNEX 1: STAKEHOLDER INTERVIEW GUIDE

Stakeholder	Questions
-------------	-----------

1. Introduction

1.1. Case for investing in sustainability in leather and textile sectors (green finance case)

Background:

- Green Banking Guidelines (GBG) released in 2017 by State Bank of Pakistan, targeting scheduled banks and DFIs within bank's remit. Core objectives:
 1. Reducing the portfolio risks of banks/DFIs to environmental factors; and,
 2. Leveraging finance to "transform the economy into a resource efficient and climate resilient one" (SBP 2017).
- Means for achievement of core objectives of SBG:
 1. Environmental risk management alignment with credit risk assessment and management;
 2. Green business facilitation through the development of innovative financial products and alignment of existing products with sustainability objectives; and,
 3. Banks' internal impact reduction, particularly through resource efficiency measures.

Objectives:

- Understand level of awareness/engagement with Green Banking Guidelines
- Gauge degree of Green Banking Guidelines implementation, especially in relation to financing of sustainable production by leather/textile SMEs

Questions:

- Have the Green Banking Guidelines affected your operations or planning?

- Would you be interested in / are you currently in the process of looking at avenues for the implementation of the Green Banking Guidelines within your institution? If so, do you have sector specific foci? What type of products would you look to / are you developing in line with these guidelines? Are you planning to offer any products specifically for sustainable production (green) activities within the textile/leather sectors?
- Have you received any guidance for alignment with Green Banking Guidelines? (For example, from government or DFIs)
- Additional: Any current policy or private sector incentives (beyond Green Banking Guidelines) that your institution is aware of for financing sustainable production by SMEs? Specifically, in the textile/leather sector?

2. Background of SMEs in the textile and leather sectors

3. Gap analysis of green SME financing for textile and leather sectors

3.1. Key players

Background:

- Key stakeholder categories referenced in the draft report include: private and public banks, microfinance institutions, development finance institutions, equity investors, public sector / government, intermediaries (credit bureaus, cleaner production centres)

Objective:

- Understand/map the relations between key actors relevant to financing sustainable production by leather/textile SMEs, building on initial stakeholder mapping exercise

Questions:

- Are there any actors in your network (that you work with regularly) within the sustainability space? (For example, engagement with DFIs or government agencies specifically around green/sustainability financing, technical assistance, etc.)

3.2. Available product offerings

Banks

Background:

- Sustainable production investments by the leather/textile sectors can broadly include:
 1. Purchasing and storage (resource efficient processes and technologies, replacement/moderation of carbon-intensive processes)
 2. Process operation (load management, investment in human capital/trainings, control of process deviations through modernisation of facilities)
 3. Maintenance (tools/technologies for problem diagnosis, acquisition of more reliable equipment)
 4. Process optimisation and control (introduction of automation and control)
 5. Equipment and infrastructure (investment in cleaner equipment and resource-efficient systems)

Objectives:

- Clarify number/types of bank (private/public) providing financial support to (a) SMEs within the leather/textile sectors and (b) for sustainable production, ideally in combination
- Gain better understanding of types of products offered to leather/textile SMEs generally and specifically for SP investments

Questions:

- Within your SME financing activities, do you currently lend to textile/leather SMEs? What is the size of this lending portfolio (revenue estimates/ranges)? Or, do you have any other interactions with leather/textile SMEs? (e.g. technical support)
- [If not to leather/textile SMEs,] Do you lend for sustainable production / green investments (across any sector/ticket size, e.g. in line with government initiatives)? What are your lending requirements? Who do you lend to for green/sustainable purposes? What is roughly the size of this lending portfolio?
- What share of your activities relate to SME financing (across all sectors and ticket sizes)? What share of these clients are already investing in green / sustainable production through your financing? (For example, are already dedicating financing to wastewater management without an explicit link to “green finance” objectives/frameworks.)

Specifically, for ILES partner, Cleaner Production Institute (CPI)

- What processes/technologies are SMEs within the textile/leather that come through the ILES programme looking to finance? (For example, to reduce water consumption and contamination)
- Does technical assistance (non-financial support) provided to leather/textile SMEs within ILES programme (or similar cleaner production activities) support financial planning and investment roadmap development in line with “green” objectives?
- What level of investment (ticket size) are SMEs who have received non-financial support looking to secure? For which purposes?

3.3. Green financing challenges

Background:

- Green Banking Guidelines recommendations for banks/DFIs within SBP’s remit to develop green banking processes and products include:
 - Establish policy on green banking to inform key stakeholders, including banks/DFIs, investors, bank employees, public authorities of centrality of green considerations to banking activities.
 - Develop internal structures supported by administrative procedures to manage green banking requirements, including for identifying, assessing, mitigating, monitoring and reporting on environmental risks.
 - Design financial mechanisms that are aligned with green investments in renewable energy, energy efficiency and other environmentally friendly practices.
 - Build a system to reduce the environmental impacts from banks/DFIs’ portfolio operations.
 - Offer a structural approach for capacity development of the financial sector in line with green banking.
 - Arrange periodic banks/DFIs portfolio reviews to assess environment risk status and report to relevant stakeholders, including public authorities, higher management and shareholders.

- Key demand- and supply-side challenge categories (relating to both leather/textile SMEs and financial institutions, respectively) include:
 - Ticket size
 - Risk / return profiles
 - Green-SP Technologies
 - Time horizon
 - Security / collateral
 - Impact at scale
 - Human capital and skills
 - Regulatory and legal frameworks

Objective:

- Pinpoint/validate the core challenges facing interviewees in financing sustainable production by leather/textile SMEs (building on figure 12 in draft reference report)

Questions:

- What are your barriers to product design and delivery of SME financing for sustainability purposes? Any barriers specifically relevant to textile/leather sectors?
- Considering government initiatives for green banking, what are barriers to your institution aligning with Green Banking Guidelines recommendations?
- What information/data/criteria does your institution require to better assess expected returns for investments in green SMEs? (For example, technology vetting, financial indicators of productivity improvements, etc.)

4. Applying lessons from global and regional green financing

Objective:

- Collect information from interviewees on the support and knowledge sharing they require in order to build processes and products to finance sustainable production by leather/textile SMEs to better align the selection of global/regional best practices examples.

Questions:

- Have you gained any expertise/advice for green lending from other players in your network, especially from global actors?
- Is there any other information/advice you require in order to develop green financing products/structures?

5. Recommendations

ANNEX 2: POLICY AND REGULATORY FRAMEWORK LANDSCAPE

Name of law / framework / standards (Year)	Responsible stakeholder
National Environmental Law & Frameworks	
1.1. Case for investing in sustainability in leather and textile sectors (green finance case)	
<u>Pakistan National Action Plan on SDG 12 (2017)</u>	Ministry of Climate Change
<u>National Energy Efficiency and Conservation Act (2016)</u>	Ministry of Energy
<u>National Climate Change Policy (NCCP) (2012)</u>	Ministry of Climate Change
<u>Factories Act, 1934 (Amendment 2012)</u>	
<u>18th Constitutional Amendment and Provincial Environmental Protection Act and Strategies (building on Environmental Tribunal Rules of 1999) (2010)</u>	Government of Pakistan and Ministry of Environment
<u>Forest Act, 1927 (Amendment 2010)</u>	EPA
<u>National Drinking Water Policy (2009)</u>	Ministry of Environment
<u>Policy for Development of Renewable Energy for Power Generation (2006)</u>	Ministry of Energy
<u>National Sanitation Policy (2006)</u>	Ministry of Environment
<u>National Environmental Policy (2005)</u>	Ministry of Environment
<u>Solid Waste Management Guidelines (2005)</u>	EPA
<u>Pakistan Environmental Protection Act (PEP Act) (1997)</u>	Ministry of Environment
<u>Pakistan National Conservation Strategy (1992)</u>	IUCN
<u>Canal and Drainage Act (Water Pollution Control) (1873)</u>	

Provincial environmental law and frameworks

Punjab Environmental Quality Standards (PEQS) (2016)

Punjab EPA

Azad Jammu and Kashmir Environmental Protection Act (2016)

AJK EPA

Sindh Environmental Protection Act (2014)

Sindh EPA

Khyber Pakhtunkhwa Environmental Protection Act (2014)

Khyber Pakhtunkhwa EPA

Gilgit-Baltistan Environmental Protection Act (2014)

GB EPA

Balochistan Environmental Protection Act (2012)

Balochistan EPA

Punjab Environmental Protection Act, 1997 (Amendment 2012)

Punjab EPA

National financial regulation and guidelines

Green Banking Guidelines (2017)

State Bank of Pakistan

Sustainable Banking Network Membership (Since 2015)

SBN

Code of Corporate Governance and Corporate Social Responsibility (CSR) Voluntary Guidelines (2013)

Securities and Exchange Commission

National SME / sector-specific policy and frameworks

National SME Policy 2019-24, formerly SME Act 2017 (Revised in 2019)

Ministry of Industries, Production and Special Initiatives

Textiles Policy (2014-2019)

Ministry of Textile Industry

International textile/leather standards and frameworks

Apparel and Footwear International RSL Management (AFIRM) Group (2004)

AFIRM Group

Global Organic Textile Standard (GOTS) (Version 6.0 in 2020)

GOTS

UNIDO Framework for Sustainable Leather Production (2019)

UNIDO

<u>ISO 14000 Family (EMS) (2015, 2016, 2019)</u>	International Organisation for Standardisation (ISO)
<u>OECD Due Diligence Guidance of Responsible Supply Chains in the Garment and Footwear Sector (2018)</u>	Organisation for Economic Cooperation and Development (OECD)
<u>EU's Generalised Scheme of Preferences (GSP+) (granted to Pakistan in 2014)</u>	EU
<u>Higg Index of the Sustainable Apparel Coalition (SAC) (2014)</u>	Sustainable Apparel Coalition
<u>Ecolabel (2014)</u>	EU
<u>Zero Discharge of Hazardous Chemicals (ZDHC) Group (2011)</u>	Roadmap to Zero
<u>Best Available Techniques (BAT) for the Textile Industry (TXT BREF) (2010)</u>	EU
<u>Regulation on the Registration, Evaluation, Authorization and Restriction of Chemical Substances (REACH) (2007)</u>	European Commission (EC)
<u>bluesign SYSTEM (2000)</u>	BLUESIGN
<u>Oeko-Tex Standards (OEKO-TEX 100, 1000, and STeP) (1992)</u>	OEKO-TEX

ANNEX 3: STAKEHOLDER MAPPING

Organisation	Ecosystem stakeholder group
Financial Sector	
State Bank of Pakistan	National bank
National Bank of Pakistan	
First Women Bank	Public scheduled bank
Sindh Bank	

Bank of Punjab	Public scheduled bank	
Khyber Bank		
HBL Habib Bank Limited		
MCB Bank Limited		
United Bank Limited		
JS Bank		
Standard Chartered Pakistan		
Faysal Bank Limited		Private scheduled bank
Samba Bank Limited		
Allied Bank Limited		
The Bank of Khyber		
Bank Alfalah Limited		
Askari Bank		
Citibank Pakistan		
Meezan Bank Limited		
Al Baraka Bank	Private scheduled islamic bank	
Dubai Islamic Bank		
MCB Pakistan (Muslim Commercial Bank)	Specialised schedule bank	
SME Bank		
Industrial Development Bank		
Pakistan Banks' Associations (PBA)	Banking association	
Government		
Ministry of Textile Industry	Government ministries	

Ministry of Industries and Production	Government ministries
Ministry of Climate Change	
Ministry of Planning, Development & Reform	
Securities and Exchange Commission of Pakistan	Public sector agencies
Chamber of Commerce and Industries	
Water and Sanitation Agency (WASA)	
Energy Boards / Departments	
Environmental Protection Agencies	
National Productivity Organisation (NPO)	
Electronic Credit Information Bureau	Credit bureau
Intermediaries	
Cleaner Production Institute (CPI)	Cleaner production centres
National Cleaner Production Centre (CPC)	
Establishment of CP centers at Attock Refinery, Sialkot, and Textile College Faisalabad	
Department of Fibre and Textile Technology, University of Agriculture, Faisalabad	Research / university
Program for Industrial Sustainable Development	
National Research Center (LRC) - PCSIR	
National Institute of Leather Technology	
National Textile University Faisalabad and Karachi	
Textile Engineering Department at Mehran University of Engineering Science and Technology Jamshoro	
Textile Engineering Department NED University Karachi	Industry and trade association
All Pakistan Textile Mills Association (APTMA)	

Pakistan Ready-Made Garments Manufacturers and Exporters Association	Industry and trade association
All Pakistan Bedsheets and Upholstery Manufacturers Association	
Karachi Cotton Association	
Pakistan Hosiery Manufacturers and Exporters Association	
Pakistan Gloves Manufacturers and Exporters Association	
Pakistan Tanners Association (PTA)	
All Pakistan Textile Processing Mills Association (APTPMA)	
Garments Manufacturers and Exporters Association (PLGMEA)	Civil society
World Trade Organisation Pakistan	

ANNEX 4: SPECIFIC TERMS OF REFERENCE FOR FORMULATION OF A GREEN FINANCING INSTRUMENT IN PAKISTAN

Development of Green Credit Guidelines for facilitation of green financing for leather and textile SMEs from financial institutions in Pakistan

Terms of References (ToRs) for consultant

1. General

This document contains Terms of Reference (TOR) for the Consultant, to be engaged by WWF-Pakistan (hereinafter called the Employer), for preparation of “Green Credit Guidelines for Facilitation of Green Financing for Leather and Textile SMEs from Financial Institutions in Pakistan” (hereinafter called the Study).

2. Objectives and scope of the study

The objective of the consultancy is to provide a reference document, for use by stakeholders and participants of the ILES project that serves as a comprehensive financial mechanism (Green Credit Guidelines) for facilitating green financing in leather and textile SMEs in Pakistan. Thorough consultations with financial institutions and industrial stakeholders are incumbent for the designing of these guidelines. Dissemination workshops after the preparation of the guidelines are necessary as part of this study.

The scope of the consultancy builds on the needs assessment study / gap analysis as well as insight from interviews and dissemination workshop conducted in phase 1 of this project, and shall include the following:

Stage 1 – Preliminary scoping:

This part of the consultancy will involve:

- Conduct additional meetings / interviews with key industrial stakeholders in the finance sector as well as the textile and leather sector in order to fill knowledge gaps identified in phase 1 of this project and inform design process for drafting the financial mechanism / Green Credit Guidelines.

Deliverables from stage 1:

- First sketch of concise policy brief / summary paper containing initial ideas and recommendations for the design of Green Credit Guidelines as a result of the additional interviews and building on the needs assessment study from phase 1
- Recommendations (and rationale) and initial plan for consultation workshops in stage 2

Stage 2 – Workshops for public and private sector stakeholders to seek recommendations:

This part of the consultancy will involve:

- Seeking recommendations both from public sector and private institutions
- Two consultative / collaborative working group sessions for discussions and brainstorming with financial institutions, SMEs and public sector. Draft recommendations for preparation of green credit guidelines after the consultation process.

Deliverables from stage 2:

- A concise policy brief / summary paper containing findings and recommendations based on the proceedings of consultative sessions and building on the needs assessment study from phase 1
- The brief should have sections on:
 - recommendations to develop green credit guidelines and
 - assessment of barriers and opportunities for implementing these proposed recommendations
 - Schematic overview of financial mechanism for de-risking the investment for environmental initiatives

Stage 3 – Drafting of the guidelines:

Development of the detailed green credit guidelines.

Deliverables from stage 3:

- Final report of the consultancy in the form of 'Green Credit Guidelines to Facilitate Leather and Textile SMEs for Securing Green Finance from Financial Institutions' (including financial mechanism) encompassing all findings from above stages

Stage 4 – Final information dissemination workshops

Information sharing and capacity building of stakeholders

Deliverables from stage 4:

- A powerPoint presentation for dissemination of the Green Credit Guidelines and financial mechanism delineated in the guidelines.
- Two dissemination workshops / capacity building session for financial and industrial institutions for sharing Green Credit Guidelines

3. Consultant's scope of services

The consultant' scope of services shall comprise the following:

- a) Collation of all the requisite data and information (depending on the availability of data), for the purpose of the study, and its timely submittal to the employer. Both employer and consultant will be coordinating and updating the list if required.
- b) Review sessions with employer to discuss the available data and agree structure, scope and contents of final report.
- c) Carrying out all the required analyses of the collected data and information
- d) Conducting all workshops will be the primary financial and logistic responsibility of the consultant. (Budgeted by the consultant in consultation with the employer).
- e) Preparation and submittal of the final study report, after due incorporation of the employer's written comments and observations, on the draft study report
- f) Proceedings of consultative workshops (02); dissemination workshops (02) and meetings (as required)

shall be recorded and submitted along with the deliverables of the respective stage.

g) Time to time feedback of the employer on the study

h) Final study report shall be submitted to the employer, in form of a soft (electronic) copy, each.

i) The presentation shall be submitted in soft form.

4. Time frame

- Eight months

The unsustainable use of resources and poor environmental management practices present a major threat to the sectors' sustainability.

The textile and leather sectors are central to Pakistan's economy and depend on the contributions of small and medium-sized enterprises (SMEs).



© Ethan Bodner – unsplash.com

Industry stakeholders, financiers and government actors face intersecting challenges in facilitating targeted green financing solutions.

Multi-stakeholder collaboration and the buy-in of various public and private sector actors is key to addressing and developing tailored solutions that overcome the challenges faced by both financiers and (textile/leather) SMEs.



Why we are here:

To stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature.

www.wwf.org

info@wwf.org.pk

[f WWFPAK](#)

[▶ WWFPAK](#)