
Scoping study:

Development of a financing offer relating to the green economy in Morocco

WORKSTREAM 1:

Gap analysis of the offer of and needs for green finance instruments across sectoral value chains targeting small and medium-sized enterprises (SMEs) in Morocco





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Details

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Acronyms and abbreviations

AFD	Agence Française de Développement [French Development Agency]	CSR	corporate social responsibility
AfDB	African Development Bank	DFI	development finance institution
AFI	Alliance for Financial Inclusion	DGI	General Tax Directorate
AMEE	Agence Marocaine pour l'Efficacité Energétique [Moroccan Agency for Energy Efficiency]	DMC	domestic material consumption
AMIC	Association marocain des investisseurs en capital [Moroccan Association of Capital Investors]	EBRD	European Bank for Reconstruction and Development
AMMC	Autorité Marocaine du Marché des Capitaux [Moroccan Capital Market Authority]	ECI	Enviro Consulting International
AWB	Attijariwafa Bank	EDFI	European Development Finance Institution
BAM	Bank Al-Maghrib	EE	energy efficiency
BCP	Banque Centrale Populaire	EEC	Energy Engineering Company
BMCE	Banque Marocaine du Commerce Extérieur Group [Moroccan Bank of Foreign Commerce]	EIB	European Investment Bank
BOA	Bank of Africa	EPC	Energy Performance Contract
BP	Banque Populaire	ESCO	energy service company
BVC	Casablanca Stock Exchange	ESG	environmental, social and governance
CAM	Crédit Agricole du Maroc	EU	European Union
CAPEX	capital expenditure	EU ETS	EU Emissions Trading System
CBAM	Carbon Border Adjustment Mechanism	EVA	economic value added
CDG	Capital Caisse de Dépôt et de Gestion Capital	FDA	Fond de Développement Agricole [Agricultural Development Fund]
CDII	Customs and Indirect Taxation Code	FI	financial institution
CESE	Conseil Economique, Social et Environnemental [Economic, Social and Environmental Council]	FSD Africa	Financial Sector Deepening in Africa
CGEM	Confédération générale des entreprises du Maroc [General Confederation of Moroccan Enterprises]	GDP	gross domestic product
CGI	Code Général des Impôts [General Tax Code]	GEFF	Green Economy Finance Facility
CIH Bank	Crédit Immobilier et Hôtelier	GGGI	Global Green Growth Institute
CNSS	Caisse National de Sécurité Sociale [National Social Security Fund]	GHG	greenhouse gas
CO2	carbon dioxide	GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH [German International Cooperation]
CSP	concentrated solar power	GPBM	Groupement Professionnel des Banques du Maroc [Professional Association of Moroccan Banks]
		GVC	Green Value Chain
		ha	hectare
		HCP	Haut-Commissariat au Plan [High Commission for Planning]
		HCV	High Conservation Value
		HFO	heavy fuel oil
		IFC	International Finance Corporation
		IGF	inclusive green finance

ILO	International Labour Organization	OMTPME	Observatoire marocain de la très petites et moyenne entreprise [Moroccan Observatory of SMEs]
IOSCO	International Organisation of Securities Commissions	OPCC	Organismes de Placement Collectif en Capital [Undertakings for Collective Investment in Capital]
IPO	initial public offering	PLC	public limited company
ISE	intermediate-sized enterprise	PM2.5	particulate matter 2.5
KfW	Kreditanstalt für Wiederaufbau Development Bank	PROMET	Promotion of Entrepreneurship
kg	kilogram	PV	photovoltaic
km	kilometre	R&D	research and development
km²	square kilometre	RE	renewable energy
kWh	kilowatt-hour	RIDPL	Reform Implementation Development Policy Loan
l	litre	SDG	Sustainable Development Goal
LE	large enterprise	SEAF	Small Enterprises Assistance Funds
MAP	Mediterranean Action Plan	SEI	Société d'Ingénierie Energétique [Energy Engineering Society]
mcg	microgram	SME	small and medium-sized enterprise
MEF	Ministère de l'Economie et des Finance [Ministry of Economy and Finance]	SMGF	SEAF Morocco Growth Fund
MNF II	Morocco Numeric Fund II	t	tonne
MorSEFF	Morocco Sustainable Energy Efficiency Financing	TGR	General Treasury of the Kingdom
MSME	micro-, small and medium-sized enterprise	toe	tonnes of oil equivalent
m³	cubic metre	TPES	total primary energy supply
NDC	nationally determined contribution	UNEP	United Nations Environment Programme
NMA	Nomenclature Marocaine des Activités [Moroccan Classification of Activities]	VAT	value-added tax
NPI	non-profit institution	VSE	very small enterprise
NSDS	National Strategy for Sustainable Development	WFP	World Food Programme
OECD	Organisation for Economic Co-operation and Development	WS	workstream
OMPIC	Moroccan Office of Industrial and Commercial Property	WWTP	wastewater treatment plant

Executive Summary

Background and objectives of the study

Background. Since 2010, Morocco has been considering the green economy as a crucial complementary element to its sustainable development agenda with the potential to trigger development opportunities in various economic sectors. Morocco’s National Strategy for Sustainable Development (NSDS) and its initial and updated nationally determined contribution (NDC) set the country’s commitment to the green economy and put forward the various actions for mitigating greenhouse gas (GHG) emissions and adapting to climate change.

While the transition to a green economy concerns all actors in the economic fabric, particular attention should be paid to Morocco’s small and medium-sized enterprises (SMEs) as these businesses represent 93% of all companies in the country and employ over 46% of its workforce. However, these businesses generate only 40% of the nation’s gross domestic product (GDP) and 31% of its exports, demonstrating the growth potential of Morocco’s SMEs and the need for support with integrating into global value chains. To achieve this potential, these companies require diversified and accessible financial assistance that allows them to grow in line with Morocco’s green vision, in turn benefiting the national economy, bolstering the competitiveness of Moroccan SMEs in international markets and allowing the country to meet its climate and sustainability targets.

In order to effectively contribute to the development of green investment mechanisms for Moroccan SMEs, the Ministère de l’Economie et des Finance [Ministry of Economy and Finance] (MEF) of the Kingdom of Morocco, with support from the British Embassy in Morocco (part of the Foreign Commonwealth Development Office) and Financial Sector Deepening Africa (FSD Africa), has commissioned this scoping study. This study focuses on the provision of green finance to SMEs, helping them to both grow by offering green products and services and improve the sustainability of their own operations.

Objectives. The objectives of this study are therefore to:



While objectives 1) and 2) are covered in this report, objective 3) will be tackled in sequence and covered in a separate workstream (WS).

Mapping the green finance demand by SMEs

Demand mapping via NDC actions: Morocco’s NDC implementation action plan, or the main document guiding the climate-relevant component of the Moroccan economy, was analysed in this study as a proxy for understanding the expected demand for green financing from SMEs. In line with the updated Moroccan NDC, the planned actions in the areas of mitigation and adaptation will require USD 38.8 billion and USD 40 billion, respectively. SMEs are expected to play an important role in delivering Morocco’s NDC, with around 40% of the mitigation actions and 55% of the adaptation actions to be implemented by SMEs either directly or through subcontracting to large enterprises (LEs).

Additional green demand from governmental procurement and challenges to access faced by SMEs: the Moroccan legislative framework has recently evolved to enhance application of the green economy principles. The State Exemplarity Pact established in the implementation framework of the NSDS, designed to promote sustainable and responsible public procurement, represents another opportunity for SMEs to become further involved in the green economy. Sectors that will require sustainability-focused products and services in line with the new legislation include energy efficiency (EE), small- and medium-power renewable energy (RE) development, water saving technologies, purified water purification and reuse and green industrial zone development.

However, while government initiatives create great opportunities within the green economy for SMEs, there are still inherent challenges preventing smaller companies from becoming involved in a public procurement system which still predominantly favours LEs. This challenge should be addressed in future procurement decisions made by governmental bodies to allow SMEs to better take advantage of these emerging opportunities.

International pressure to decarbonise: in addition to the growing internal demand for Moroccan companies to get involved in greener sectors and provide more sustainable products and services, there is also a growing international pressure for decarbonisation. The European Union’s (EU) imminent Carbon Border Adjustment Mechanism (CBAM), a climate tariff requiring all EU trading partners to decarbonise or pay a fee for their exports to the EU, creates an economic incentive for Moroccan companies to decarbonise their operations via energy efficiency and low-carbon energy measures. The implementation of CBAM, while initially prioritising more energy-intensive sectors (e.g. electricity generation, cement, fertilisers, iron, steel and aluminium), will expand its coverage over time, resulting in the need for internationally trading SMEs to invest in the decarbonisation of their operations.

Analysis of the greening potential of economic sectors: the assessment of the Moroccan economy undertaken in this study helped to identify the sectors which are expected to have the highest demand for green finance. This demand is expected to stem both from Morocco’s national need for green actions and the growing international pressure for decarbonisation. The nine priority sectors identified are:

	Agriculture, forestry and fisheries		Trade and repair of motor vehicles and motorbikes		Construction
	Manufacturing industry		Extractive industries		Water production and distribution, sanitation, waste management and remediation
	Production and distribution of electricity, gas, steam and air conditioning		Human health and social work		Transport and storage

Within the above sectors, the assessment also identified subsectors with the highest scaling potential (i.e. sectors with the largest number of companies able to benefit from access to new green financing opportunities and to support the spread of green practices). These subsectors include trade (wholesale and retail), land and pipeline transport and construction (encompassing both building contraction and specialised construction work). These subsectors also tend to have large turnovers, thereby representing areas of high importance for Moroccan economic growth.

As such, it is suggested that any new green finance solution to be implemented in Morocco considers the specific financing needs and conditions of these sectors to maximise benefits for the Moroccan green transition.

Mapping the green finance offer for SMEs

Green finance offer mapping: during the last few years, several financing offers dedicated to green projects have emerged in Morocco. These have been initiated by public institutions focused on providing support to companies in Morocco, such as Maroc PME and TAMWILCOM, and by development finance institutions (DFIs) partnering with local commercial banks. These offers are primarily presented in the form of grants, debt or equity funding focusing on more innovative enterprises. Of the 13 main finance offers analysed in this study (see Figure 1), 10 provide information on USD 4.9 billion of available financing planned for distribution between 2019 and 2024.¹

Figure 1: Mapping of green finance offers for SMEs



(Source: based on authors' own research and Cluster Solaire, 2021)²

SME eligibility: unlike larger companies, SMEs are eligible for all current green offers and predominate in the projects eligible for green credit lines. However, it is mainly the largest SMEs in terms of turnover, workforce and organisational resources that have benefited from the first financing offers put on the market. This disparity highlights the importance of ensuring that very small enterprises (VSEs) also have access to green finance, given their importance to the economy and the high number of people employed by them.

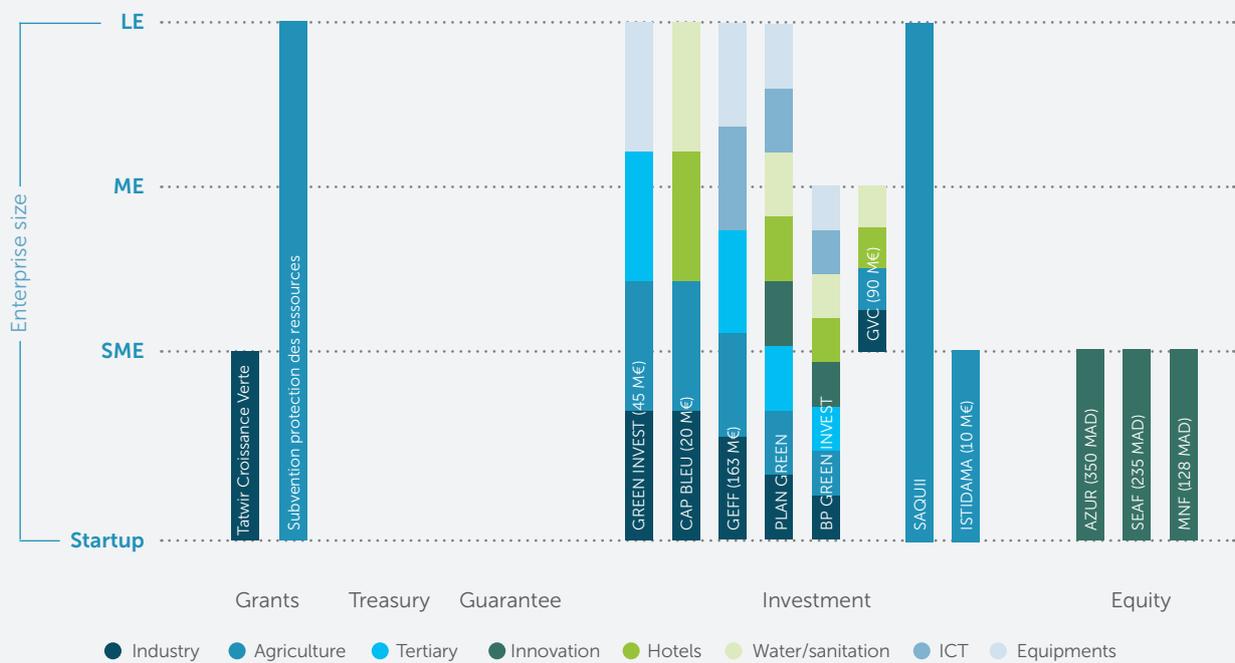
¹ Distribution timelines are programme-specific and vary among the considered programmes.

² Cluster Solaire. (2021). Décarbonation et économie verte: Guide des programmes de financement et d'appui pour les entreprises marocaines. <https://www.amee.ma/sites/default/files/inline-files/Guide%20des%20Programmes%20de%20Financement%20et%20D%27appui%20pour%20les%20Entreprises%20Marocaines.pdf>

Types of eligible projects: green credit lines currently focus primarily on financing EE and RE projects. While these are crucial for tackling climate change and are important for Morocco’s international trade, there is a need to expand the current offer to cover other categories of green projects. This situation has started to change lately, with the Agence Française de Développement [French Development Agency] (AFD), for example, setting up a credit line dedicated to adaptation. Additionally, a lack of financing for working capital requirements has been identified as greenfield projects are not eligible for any analysed source of finance.

Sectoral coverage of the green finance supply: green finance is currently directed primarily towards the industrial and agricultural sectors, while other sectors with high mitigation, adaptation and wider sustainability potential (e.g. housing and fisheries) gain little to no attention (see Figure 2).

Figure 2: Sectoral analysis of green finance offerings



(Source: the authors, 2022)

Types of available finance:

- 1 **Grant financing:** grants for SMEs have recently become available and specifically cover green projects.
- 2 **Debt financing:** while there has been little take-up of the Green Invest co-financing and Tatwir Green Growth investment premium products, there has been success with the green credit lines offered by the DFIs which, in addition to credit, provide a subsidy and free technical assistance. However, these DFI-supported credit lines may disappear in the future if not sufficiently supported by local finance providers.

3

Equity financing: at present, only three equity funds devote part of their investments to green companies, mainly targeting greentech solutions and technologies. Private equity fund management companies have expressed interest in structuring green equity and mezzanine funds.

4

Stock market: green investments from individual SMEs are not large enough to be able to use green bonds as instruments for attracting institutional investors, or the main players in the stock market. An aggregation mechanism could potentially be used to structure joint issues for a pool of SME projects to achieve sufficient finance volumes for bond issuance, while credit enhancement and guarantee schemes may also reduce the barriers for SMEs.

5

Guarantees: currently, TAMWILCOM has a generic program targeting SMEs and covering credit guarantees without a particular target of green projects. The Moroccan government is currently working on the development of a guarantee instrument.

Gaps and challenges

The gap analysis undertaken within this study has been limited by the availability of existing data and information gathered through stakeholder consultations, with data being restricted enough so as to prevent a quantitative assessment of the gap in green finance for SMEs in Morocco. Still, the findings of the analysis have identified:

1. Strong and ambitious targets associated with Morocco's NDC;
2. High greening potential associated with various economic sectors;
3. Several measures promoting green activities being implemented on a national level (e.g. sustainable public procurement, a green taxation framework and a green taxonomy);
4. A systematic consideration of the greening concerns at the level of national sectoral plans; and
5. Gaps to be filled in the offer current funding for SMEs in terms of tailored green products and/ or sector coverage

Hence, the analysis demonstrated significant demand for green financing among SMEs and appreciable gaps in green finance supply, both in terms of its sectoral scope and the types of projects and financing instruments covered. With Morocco's ambitious NDC implementation plans requiring USD 78.8 billion over the next eight years and 40% of actions to be implemented by SMEs, the demand for green financing is likely to grow, particularly if awareness of green financial opportunities continues to increase. Given the specific characteristics of SMEs and green projects, the green financing option currently on offer, estimated at around USD 4.9 billion between 2019 and 2024,³ appears to be insufficient. It will therefore be necessary to increase the finance offer by strengthening existing financing programmes and implementing new instruments.

³ Of the 13 main finance offers analysed in this study, 10 provide information on over USD 4.9 billion of available financing planned for distribution between 2019 and 2024.

Box 1: Main findings of the gap analysis

Limited sectoral coverage

Agriculture and industry each have high economic value added (EVA) and greening potential, making them the safest and most obvious sectors for the provision of investment subsidies and premiums. These two sectors are also predominant in terms of the green credit lines for which they are systematically eligible, due to their economic importance and greening potential.

Some sectors with high greening potential, (e.g. transport, water and electricity production) or that are most important for the national economy (e.g. construction, trade and health) remain poorly covered by the current green finance supply. The fact that these sectors also have lower EVA has likely contributed to them being underserved by the current supply of green funding. Green finance targeted at these sectors, together with targeted public spending and fiscal incentives, can contribute to improving their competitiveness and increasing their EVA.

Limited coverage of the different green components and activities

Green finance supply is still mainly focused on EE and RE projects, whereas there is large untapped potential for greening the economy in diverse components (e.g. fisheries and sustainable housing) that are not sufficiently covered by the present supply of green finance.

Limited supply of financial instruments with a dedicated green offer

While the gap analysis undertaken focuses mostly on how the current supply (i.e. grants, credit lines and equity) addresses the different sectors and green components, a broader gap in the availability of green products has also been identified. At present, there are no insurance or guarantee products with a targeted green offer, and even the equity funds available are not exclusively dedicated to green activities but rather cover them through funding start-ups focused on the green economy.

(Source: the authors,2022)

Box 2: Barriers and challenges associated with the supply of green finance to small and medium-sized enterprises



Conditions for finance access are, in some cases, inadequate for addressing the needs of SMEs due to specific constraints faced by these companies.



Equity fund managers face issues in raising funds specifically targeted at green activities and/or SMEs.



The lack of local expertise in the green economy limits the green finance supply in Morocco.



The regulatory framework does not provide sufficient incentives to SMEs for a clean energy transition

(Source: the authors,2022)

Box 3: Barriers and challenges associated with the demand of green finance to small and medium-sized enterprises



Lack of awareness around and interest in green finance from SMEs.



Inherent characteristics of SMEs, such as a lack of solvency or undercapitalisation, contribute to creating barriers to accessing finance.



Green projects and investments tend to have higher costs in the short term and longer payback periods than ordinary investments, making them less attractive.

(Source: the authors,2022)

Recommendations

Recommendations for taking advantage of opportunities and addressing identified barriers are presented in Table 1. These recommendations can inform the design and implementation of future government policies.

Implementation of the suggested recommendations could potentially be funded via a support mechanism for green SME financing, to be established with the support of financial partners. This could take the form of a loan to support reforms and finance the implementation of a selection of programmes addressing the barriers to green SME financing in Morocco. During consultations, selected DFIs, including the AFD, the Kreditanstalt für Wiederaufbau Development Bank (KfW) and the European Bank for Reconstruction and Development (EBRD), expressed awareness of the importance of such reforms to strengthening the green financing ecosystem and ensuring the suitability and sustainability of new and current financial offers. These DFIs have indicated their interest in potentially contributing to the financing of this support mechanism.

Table 1: Recommendations

Barriers/ challenges	Recommendations	Priority
Regulatory framework	Acceleration of the ESCO accreditation scheme.	
	Make mandatory regulatory energy audits effective.	
	Improve the framework for self-generation of electricity to allow companies to feed their production into the grid.	
	Improve the framework for public procurement (e.g. increasing the maximum duration of public procurement to match the duration of EPCs).	

Barriers/ challenges	Recommendations	Priority
	Accelerate the entry into force of the requirements of the new decree currently being drafted to address the general clauses in public contracts and replace Decree No. 2-12-349 of 2013.	
	Ease prudential regulation rules on banks in favour of financing green projects of SMEs.	
Tax framework	Restore the cost and risk balance of green projects through fiscal incentives (e.g. VAT on green equipment, customs duties, tax credits and accelerated depreciation).	
	Tax energy-intensive sectors.	
	Review the texts governing the fees related to the direct and indirect discharge of liquid effluents from industrial units into the receiving environment.	
	Adopt the decree on the discharge of industrial units into the coastline.	
	Strengthen the control and monitoring capacity of the environmental police to ensure compliance with the parameters for liquid, gaseous and solid discharges from stationary and mobile emission sources in industry.	
Green taxonomy	Accelerate the implementation of a taxonomy for green projects.	
Information/ awareness raising	Design and implement awareness campaigns for SMEs on the benefits of energy transition and information on green finance offers.	
Eligibility of SMEs	Provide targeted support to improve the structure and governance of SMEs and strengthen their equity capital.	
	Ease the conditions for access to finance in exchange for stronger monitoring mechanisms.	
	Strengthen the ecosystem around the main donors for the management of risks associated with SMEs.	
	Establish an adapted and dedicated guarantee scheme for green projects.	
Technical assistance	Provide capacity building for public and private sector actors involved in green finance.	
	Provide capacity building to address SMEs' weaknesses (e.g. lack of financial literacy and transparency, poor governance and risk management practices).	
	Build on the technical expertise of the AMEE.	
	Certify, promote and support credible local institutions that have strong capabilities in the green economy.	
	Provide capacity building for trainers and potential technical assistance providers.	

Barriers/ challenges	Recommendations	Priority
Green economy ecosystem	Promote greentech industrial sectors.	
	Create a market for certified green equipment.	
	Promote an effective involvement of the public sector in improving and disseminating knowledge and initiating the required fiscal and regulatory reforms.	

(Source: the authors, 2022)

 Low  Medium  High

Suggestions for the new financial instrument: while the development of the recommendations for the new financial instrument will be the focus of WS2 of this assignment, some findings from WS1 already provide preliminary suggestions for its design. Based on the current landscape of Moroccan green finance, the following financial instruments can be considered for introduction:

Credit guarantee facility, providing a partial guarantee for debt instruments for the broader clean technology sector. Its implementation would contribute to reducing the guarantee gap that currently exist on the market while supporting green sectors that are currently struggling to access finance.

Equity contributions to SMEs providing a first-loss provision from a proposed equity fund to catalyse and leverage commercial private equity investments in SMEs. This can be beneficial as the undercapitalisation of SMEs results in little opportunity for undertaking larger projects.

Finally, addressing the matter of limited technical capacity in Morocco is essential for the success of any instrument and for increasing SMEs access to green finance. Given the lack of sufficient technical green finance expertise in the country, both from SMEs with limited understanding and capability to pursue green finance offers and from financial institutions (FIs) with limited capacity to design and implement green finance products, the implementation of a technical assistance facility to increase local capacity in green finance is highly recommended.

1. Introduction and background

Since 2010, Morocco has been considering the green economy as a crucial complementary element to its sustainable development agenda with the potential to trigger development opportunities in various economic sectors in the country, as highlighted in the Conseil Economique, Social et Environnemental's [Economic, Social and Environmental Council] (CESE) 2012 report. Morocco's NSDS and its initial and updated NDC set the country's commitment to the green economy and put forward various actions for mitigating GHG emissions and adapting to climate change. These documents also highlight the priority sectors for environmental action coupled with economic development, characterising the roles of various actors of different sizes, geographical dispersions and degrees of maturity.

In Morocco, the green economy aims to improve human well-being and reduce inequalities in the long term while protecting future generations from environmental risks and major ecological shortages. It is defined as a low-carbon, resource-efficient economy that facilitates social inclusion and protects biodiversity and ecosystem services.⁴

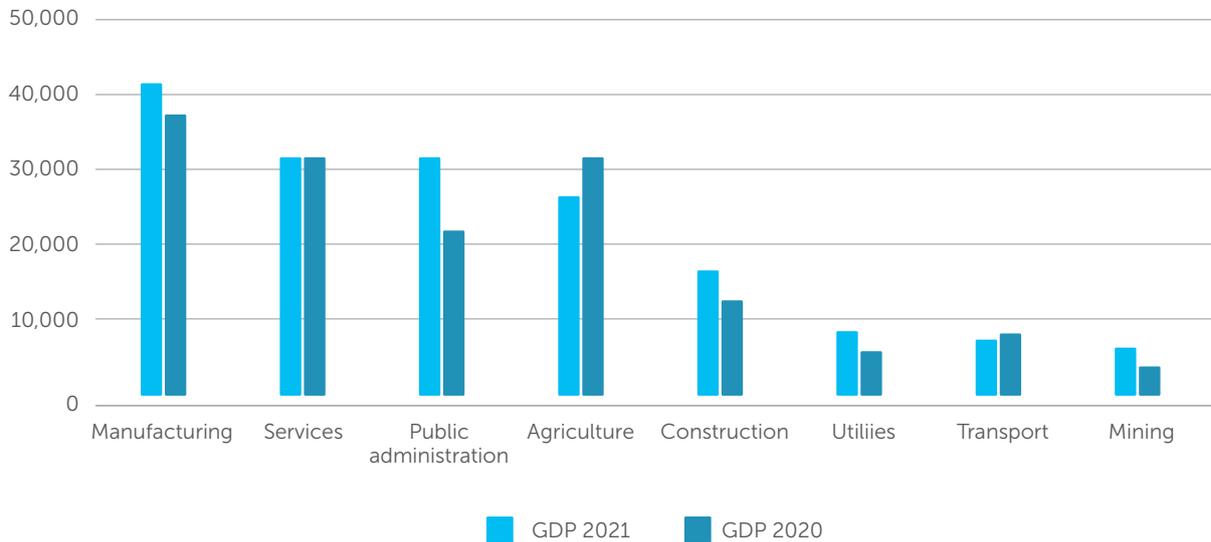
Various strategic axes of Morocco's NSDS are articulated around the green economy. As an example, Axis 4 of Issue 1, "Consolidate the governance of sustainable development", aims to strengthen economic and financial instruments and implement an environmental fiscal policy to achieve Objective 21, "Finance the transition to a green economy". Furthermore, in connection with Issue 2, "Making a success of the transition to a green economy", the NSDS has identified various strategic axes with a sectoral scope (e.g. agriculture, energy, water, waste, forestry, and mobility), such as Axis 4 being aimed at placing industrial acceleration on a green economy trajectory. At the time of writing this report, the Ministry of Energy, Mines and Sustainable Development had launched a study for the revision of the NSDS in order to integrate more up-to-date national (e.g. the New Development Model) and international (e.g. the '2030 Agenda for Sustainable Development') data and perspectives.

Furthermore, while the importance of the green economy has been prominent in Morocco for the last decade, the COVID-19 pandemic and its aftermath present an opportunity to support green transition through conditional recovery packages, targeted support to green businesses and the greater role which governments play in the recovering economies. The Moroccan economy, which, like most other economies, was affected by the COVID-19 pandemic in 2020, has since demonstrated significant growth. Taking into account the 8.8% increase in taxes on net subsidies on products, Morocco's GDP recorded a growth of 15.6% in 2021, following a decline of 7.2% a year earlier. Considering the sectoral breakdown, almost all sectors of the economy grew in 2021, with the highest absolute increase (MAD 9.6 million) observed in the public administration sector. This can be explained by the greater need for governmental expenditure to tackle the impact of the pandemic. These changes, together with the need to support further growth in those sectors crucial to economic growth and sustainable development, represent an opportunity to accelerate the green transition.

⁴ Benmahane, M. (2018). Green economy and sustainable development in Morocco: Assessment and perspectives. *Journal of Economics, Management, Environment and Law*, 1(1), 39–50. Available at: <https://www.semanticscholar.org/paper/%C3%89conomie-verte-et-d%C3%A9veloppement-durable-au-Maroc%3A-Benmahane/da469b3ced170098f5d999e741d688b3e33c3808>

Figure 3: Sectoral breakdown of the Moroccan economy

MAD million



(Source: Trading Economics, 2022)⁵

Moroccan SMEs in the green economy is a core concern of the 'National Financial Inclusion Strategy', which aims to spare no effort and support to ensure the continuity of their activities. Moreover, these SMEs benefit from a range of international and national financing offers from different instruments, often coupled with technical assistance to implement green economy projects and achieve energy savings (e.g. through making good use of RE, ensuring the responsible use of natural resources and managing waste in a circular way, among other measures).

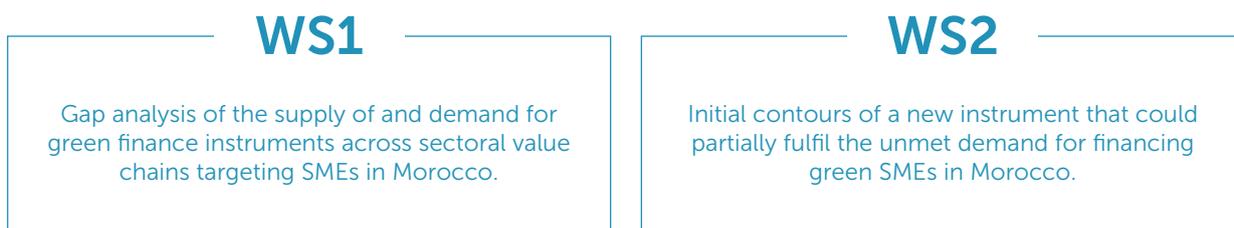
While the green finance offer available to SMEs in Morocco is significant, the government is concerned with ensuring that demand is adequately met and, hence, understanding the current gap between the finance on offer and the demand. This is crucial to ensuring that policies and mechanisms are adequately designed. Furthermore, a sectoral assessment of this gap is essential to ensuring that instruments target the sectors most relevant to Morocco's NSDS and NDC.

⁵ Trading Economics. (n.d.). Morocco GDP. Retrieved from <https://tradingeconomics.com/morocco/gdp>

2. Objectives

The main objective of this study is to undertake a detailed scoping study, incorporating both a gap analysis of the supply of and demand for green finance that targets SMEs and the design for the initial contours of a new instrument that could partially fulfil the unmet demand of SMEs in the green space in Morocco.

The study is divided into two WSs:



This report, presenting the findings of WS1 only, firstly delineates the perimeter of the green economy in Morocco and its sectors and analysing the SMEs demand for financing within the limits of the available information. In a second step, it characterises the existing offer of green finance for SMEs in Morocco. Finally, it evaluates the existing gap between the demand and the offer to identify and formulate recommendations for addressing the constraints to accessing finance.

More specifically, this report covers the following elements:



3. Methodological approach

The methodological approach used in this study combined desk research, literature review and stakeholder consultation to draw robust conclusions on the gap between the demand for and offer of green finance to SMEs in Morocco.

Section 3.1 provides relevant definitions and framing for the study. Section 3.2 outlines the stakeholder consultation process, covering the selection of stakeholders and the topic guides used to direct the discussion.

3.1 Framing the scope of the study

3.1.1 Definition of SMEs

The definitions for SMEs and VSEs used in this report are those of the Bank Al-Maghrib (BAM), adopted by the Observatoire marocain de la très petites et moyenne entreprise [Moroccan Observatory of SMEs] (OMTPME) for use in its statistics. BAM's definition takes into account two criteria, namely the annual turnover and the amount of bank credits from which SMEs benefit.

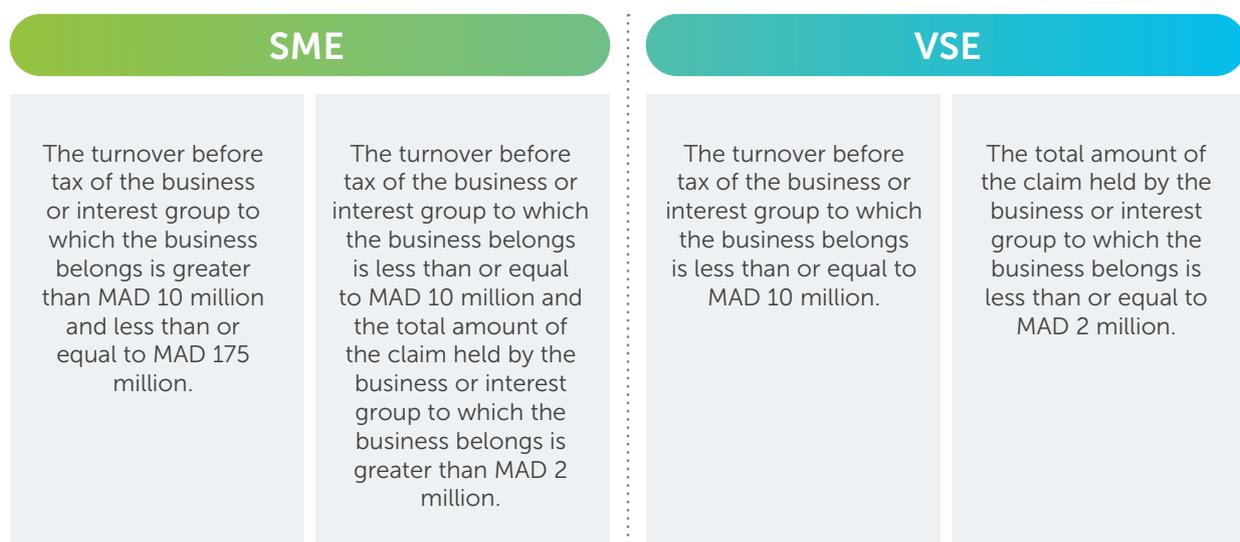


Table 2: Bank Al-Maghrib's criteria for defining small and medium-sized enterprises

Type of company	Turnover	Bank credits
SME	MAD 10 million < X ≤ MAD 175 million	
	or	
	≤ MAD 10 million	> MAD 2 million
MSMEs	≤ MAD 10 million	≤ MAD 2 million

(Source: based on BAM's 'Annual Report on Financial Market Infrastructures and Payments, their Supervision and Financial Inclusion', 2020)

3.1.2 Framing the green economy and its sectors

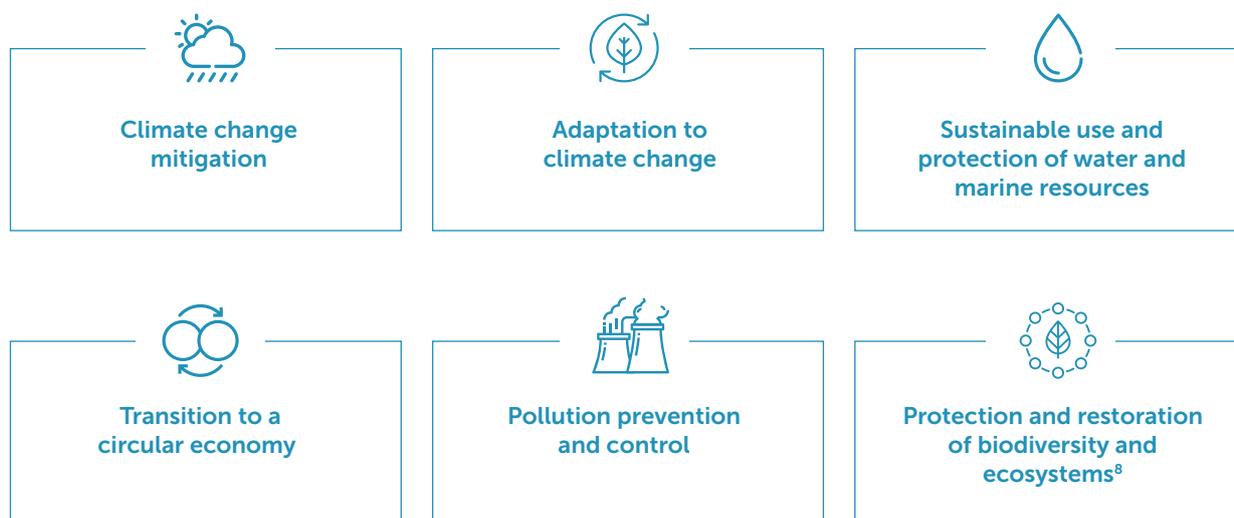
The green economy landscape at international and national levels is constantly evolving and is becoming increasingly structured and recognised. The following is a list of international and national references framing definitions of the green economy and its related sectors.

International references

According to the United Nations Environment Programme (UNEP), the green economy is defined as "one that improves human well-being and builds social equity while reducing environmental risks and scarcities."⁶ It is a low-carbon, resource-efficient economy that facilitates social inclusion and protects biodiversity and ecosystem services. It is relevant to a number of sectors, including construction, agriculture, forestry, water supply, fisheries, industry, energy, waste, cities, transport and tourism.

Over the past few years, countries and regions have developed taxonomies to provide a clear definition of actions and initiatives that can be implemented to promote a green economy and achieve climate and environmental goals. Taxonomies increase transparency and allow stakeholders (e.g. investors) to clearly identify how effectively projects, companies or initiatives are contributing to environmental objectives. They also contribute to the harmonisation and standardisation of green claims.⁷

The EU put in place its taxonomy regulation in June 2020. It indicates activities from different sectors and describes their contribution to the achievement of the following six environmental objectives:



National references⁹

The sectoral scope of the green economy in Morocco has been identified in the NSDS. In addressing Issue 2, "Making a success of the transition to a green economy", the NSDS identifies 11 strategic axes relating to the following sectors: agriculture, fisheries, forestry, industry, energy, mines, crafts, mobility, tourism, waste and urban planning.

⁶ UNEP. (n.d.). About green economy. Retrieved from <https://www.unep.org/explore-topics/green-economy/about-green-economy>

⁷ World Bank. (2020, June). Developing a National Green Taxonomy: A World Bank Guide, 9.

⁸ European Commission. (2022). Sustainable finance: EU taxonomy for sustainable activities. https://finance.ec.europa.eu/sustainable-finance/tools-and-standards/eu-taxonomy-sustainable-activities_en

⁹ This is a summary of the views of the stakeholders consulted in the course of this study.

Morocco is currently developing its green taxonomy via an initiative led by the Autorité Marocaine du Marché des Capitaux [Moroccan Capital Market Authority] (AMMC).¹⁰ For the purposes of this study, the definitions of the EU taxonomy have been used to classify sectors and activities belonging to the green economy. Furthermore, consultation with stakeholders has supported the identification of sectors and activity types relevant to the green economy in Morocco.

3.2 Stakeholder consultation

The list of stakeholders consulted during this study has been discussed with and validated by the MEF to ensure it includes all relevant institutions. Stakeholders were categorised by intervention type and consultations followed tailored questionnaires, also validated by the MEF.

Table 3 lists the stakeholders consulted during this study, presents their categorisation and highlights the focus topic for their specific consultative process (e.g. regulation, supply, demand or political and economic context).

Table 3: Stakeholders identified for the consultations and their categories

Focus topic	Category	Stakeholders
Regulation	Regulators	BAM
		OMTPME
		AMMC
Supply	Commercial banks	Caisse de Dépôt et de Gestion Capital (CDG Capital)
		Bank of Africa – Banque Marocaine du Commerce Extérieur Group [Moroccan Bank of Foreign Commerce] (BOA-BMCE)
		Attijariwafa Bank (AWB)
		Crédit Agricole du Maroc (CAM)
		Banque Centrale Populaire (BCP)
	Equity investors	Association marocain des investisseurs en capital [Moroccan Association of Capital Investors] (AMIC)
		Azur Innovation Management
		Attijari Invest
	Institutional investors	TAMWILCOM
	Donors	KfW
		EBRD

¹⁰ The AMMC has already published guidelines related to the promotion of the green economy, including: 1) Circular No. 03/19 of 20 February 2019 relating to financial operations and information concerning the obligation of companies making public offerings to communicate an ESG report, to be included in the annual financial report, in order to inform the public on the impact of the issuer's activities on the environment, its relations with employees and external stakeholders and its governance; 2) Green Bonds Guidelines in 2017; and 3) Green, Social & Sustainability Bonds: Sustainable Development Financing Instruments in 2018.

Focus topic	Category	Stakeholders
		AFD
Demand	Clusters and support for Moroccan SMEs	Maroc PME
		OMTPME
		Confédération générale des entreprises du Maroc [General Confederation of Moroccan Enterprises] (CGEM): Commission TPE-PME, Commission économie verte
		AMEE
		Société d'Ingénierie Energétique [Energy Engineering Society] (SIE)
	Other	Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH [German International Cooperation] (GIZ)
Political and economic context	Public actors	MEF

(Source: the authors, based on stakeholder consultations for this study, 2022)

For each focus topic, a specific topic guide was developed and used to frame the discussion with the stakeholders. These are presented in Annex III.

4. Morocco's economic landscape

4.1 State of development of the green economy in Morocco

4.1.1 Morocco's green economy development

Over the last decade, Morocco has been implementing multiple policies aiming to create favourable conditions in the country for green and sustainable companies and business practices. According to statistics from the Organisation for Economic Co-operation and Development (OECD),¹¹ Morocco has a moderate level of green growth overall, while the Global Green Growth Institute's (GGGI) Green Growth Index ranked Morocco as fourth in Africa, following Botswana, Tanzania and Mauritius. This ranking was calculated using the following indicators:

	Environmental and resource productivity
	Base of natural active ingredients
	Environmental dimension of quality of life
	Economic opportunities and policy response

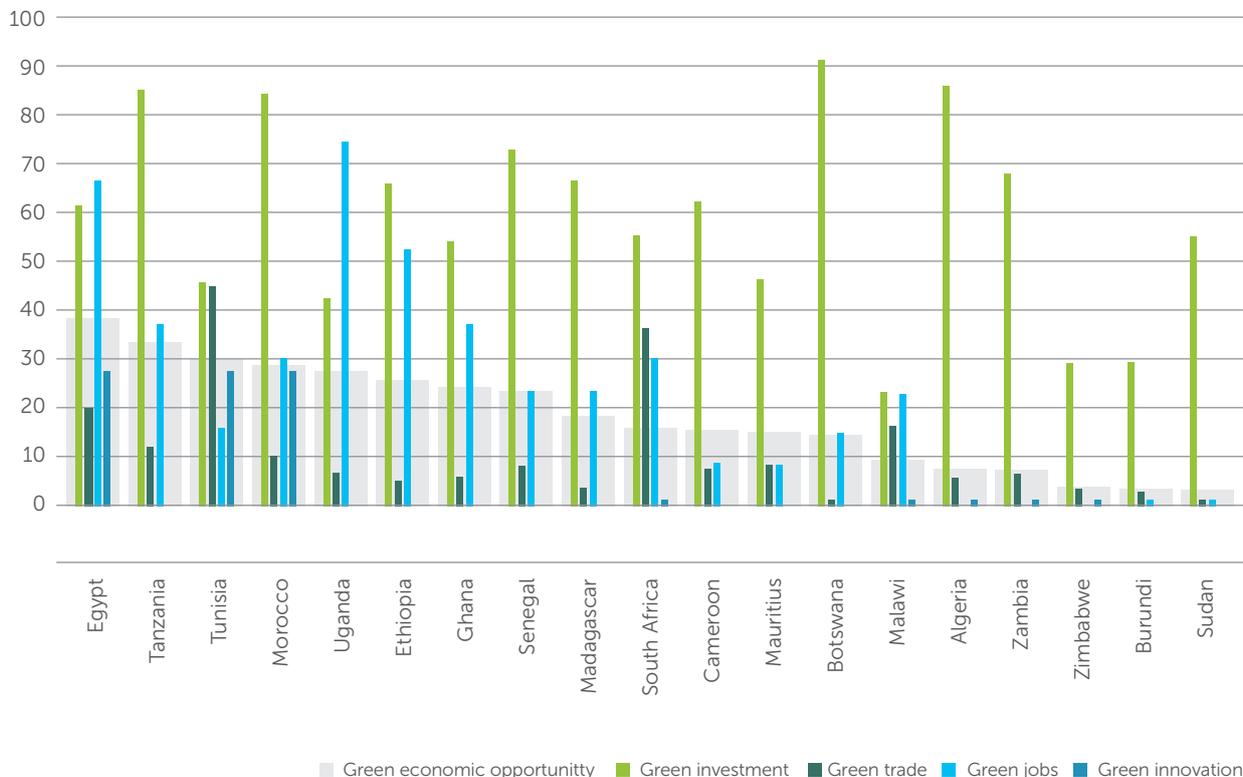
The 'economic opportunities and policy response' indicator is key in the context of this analysis and is based on the following four sub-indicators:



Applying these indicators to the North African region, the ranking for 2019 is shown in Figure 4.

¹¹ OECD. (n.d.). Green Growth Indicators. Retrieved from https://stats.oecd.org/Index.aspx?DataSetCode=GREEN_GROWTH

Figure 4: Morocco's ranking among North African countries in terms of green economic opportunities



(Source: Acosta et al., 2019)¹²

According to the OECD’s Green Growth Indicator database,¹³ Morocco is ranked fourth in the region for green economic opportunities. The detailed scores for each indicator are provided in Annex IV.

Morocco’s ranking among green economy pioneers, both in North Africa specifically and throughout Africa in general, reflects its continued commitment to the development of a green economy and its sensitivity to the need for sustainable resource management, improved quality of life and creating a policy environment that, in boosting the creation and pursuit of green finance, is conducive to development of the green economy.

4.1.2 Morocco's green economy initiatives for citizen awareness and business support

Public awareness, business participation in green initiatives and the adoption of sustainable approaches are crucial for countries looking to green their economies. In the report 'Green Economy: Opportunities for Wealth and Job Creation', published in 2012, the CESE (formerly the Economic and Social Council) proposed cross-cutting recommendations for the transition to a green economy in Morocco (see Box 4).¹⁴ Of the eight recommendations presented, three were focused on various aspects of social policy and the development of technical capacity (measures 4–6).

¹² Acosta, A. L., Maharjan, P., Peyriere, H., Galotto, L., Mamiit, R. J., Ho, C., Flores, B. H., & Anastasia, O. (2019). Green Growth Index: Concept, Methods and Applications. GGGI.

¹³ OECD. (n.d.). Green Growth Indicators. Retrieved from https://stats.oecd.org/Index.aspx?DataSetCode=GREEN_GROWTH

¹⁴ CESE. (2012). Economie Verte: Opportunités de création de richesses et d’emplois [Green Economy: Opportunities for Wealth and Job Creation]. <https://www.cese.ma/media/2020/10/Avis-du-Conseil-Economique-et-Social-Economie-Verte.pdf>



(Source: CESE, 2012)

In its NSDS,¹⁵ adopted in 2017, Morocco focuses on the aspect of public awareness, especially in terms of waste reduction. However, these initiatives had low effectiveness due to the limited ability of citizens to align their consumption choices to the environmental criteria, resulting primarily from the lack of understanding with regard to the benefits of sustainable products and their high prices.¹⁶

As for Moroccan businesses, the CGEM has set up a Green Economy Commission to support the transition of businesses towards the objectives of the green economy. The CGEM is also working with the Moroccan Cleaner Production Centre to help industries adopt clean production methods via offers of financial and technical assistance. Additionally, the Fondation Mohammed VI pour la Protection de l'Environnement [Mohammed VI Foundation for the Protection of the Environment] has launched the Qualit'air programme,¹⁷ working to raise awareness of the effects of air pollution in major cities and creating a partnership framework with companies wishing to reduce their emissions impacting air quality along with their carbon footprint.

Among the ambitious international initiatives supporting Morocco in promoting the green economy is the partnership between the Morocco-EU cooperation programme and the GIZ called the Ecostart initiative. It aims to assist 45 Moroccan entrepreneurs in their efforts to align their business with the principles of the green economy, was launched.¹⁸

¹⁵ The NSDS is therefore a strategic reference document aimed at consolidating all public policies in the area of sustainable development and correcting institutional and regulatory dysfunctions. Through this strategy, the government aspires to implement the foundations of a green and inclusive economy by 2030.

¹⁶ Diaco, M., Merrouni, M. A., Bougarrani, S., Koehler, J., Hemkhaus, M., Ahlers, J., Desmond, P., Van Hummelen, S., & McGovern, M. (2020, November). Circular Economy in Africa-EU Cooperation: Country Report Morocco, 22. European Commission. https://trinomics.eu/wp-content/uploads/2020/12/Country-Report-Morocco_Final_20201218_EN.pdf

¹⁷ Fondation Mohammed VI pour la Protection de l'Environnement [Mohammed VI Foundation for the Protection of the Environment]. (n.d.). Air & Climate: Qualit'air. Retrieved from <https://fm6e.org/programme/air-et-climat/>

¹⁸ Diaco, M., Merrouni, M. A., Bougarrani, S., Koehler, J., Hemkhaus, M., Ahlers, J., Desmond, P., Van Hummelen, S., & McGovern, M. (2020, November). Circular Economy in Africa-EU Cooperation: Country Report Morocco, 22. European Commission. https://trinomics.eu/wp-content/uploads/2020/12/Country-Report-Morocco_Final_20201218_EN.pdf

Another international initiative active in Morocco is SwitchMed,¹⁹ which provides support in various areas in order to contribute to the achievement of several UN Sustainable Development Goals (SDGs), notably SDGs 8, 9, 12 and 17. In particular, SwitchMed aims to create an ecosystem favourable to entrepreneurs pursuing sustainable business models and provides support to both business organisations and entrepreneurs to foster the creation, incubation and acceleration of sustainable business models.

Therefore, on the national level, there is recognition of the importance of developing skills and practices related to the green economy among businesses and fostering awareness in the wider public in Morocco. While there are many national and international initiatives aiming to contribute to these developments, their results to date are limited, and further work is needed to help the country shift towards greener economic practices.

4.2 Institutional framework for SMEs development

Considerable efforts have been made by the government and the private sector to set up or strengthen institutions working for the development of SMEs, including improving their access to finance. Moroccan financial system actors that are relevant to SMEs can be split into four categories: regulators, finance providers, business facilitators and technical support providers.

Table 4: Actors in the Moroccan financial system

Category	Institution	
Regulators	MEF	Ministry in charge of financial and monetary issues and credit and external finance policies
	BAM	Central bank of Morocco
	AMMC	Moroccan Capital Markets Authority
Finance providers	TAMWILCOM	Public FI carrying out state interventions in the field of public finance guarantees
	GPBM	Groupement Professionnel des Banques du Maroc [Professional Association of Moroccan Banks]
	Finéa	Financing company; subsidiary of the CDG
	DFIs	International development finance institutions
	AMIC	Moroccan Association of Capital Investors
Business facilitators	Maroc PME	Operational instrument of the public authorities for the development of SMEs
	CGEM	General Confederation of Moroccan Enterprises: VSE and SME Commission; Energy Competitiveness and Green Economy Commission
	OMTPME	Moroccan Observatory of SMEs
Technical support providers	AMEE	Moroccan Agency for Energy Efficiency
	EEC	Energy Engineering Company

¹⁹ This initiative is funded by the EU and implemented by the United Nations Industrial Development Organization, the UNEP's Division of Economics and MedWaves (formerly SCP/RAC), the Regional Activity Centre for Sustainable Consumption and Production of the UNEP/MAP: <https://switchmed.eu>

The roles of the actors in each group are summarised below:

- **Regulators:** includes the MEF, BAM and AMMC, which set the policy and regulatory framework for SME operations. The MEF is looking to accelerate the development and inclusion of SMEs in financial markets via integrated support and financing programmes and other initiatives. The BAM, in turn, is implementing financial mechanisms which allow for the refinancing of SME loans, ease credit conditions and improve information transparency, thereby facilitating SMEs' access to finance. Finally, the role of the AMMC is to furnish SMEs with initial public offerings (IPOs) and work on the development and wider use of green bonds.
- **Finance providers:** includes TAMWILCOM, which provides public investments; the GPBM and Finéa, which provide private funding; international DFIs; and the AMIC. These actors help develop financial solutions suitable for SMEs and provide finance to them through these solutions. At the same time, many of them also provide technical support and look to strengthen relationships between banks and SMEs.
- **Business facilitators:** includes organisations that focus on technical capacity building and support for SMEs, together with representing the interests of SMEs in the wider policy landscape. This group includes Maroc PME, the CGEM and the AMIC.
- **Technical support providers:** includes organisations that focus on EE programmes and services which help SMEs to reduce their energy consumption. The AMEE is responsible for the design, implementation and monitoring of EE programmes, while the EEC focuses on helping to deliver EE projects for SMEs.

The majority of the initiatives which these actors have implemented to support green finance access for SMEs have emerged only in recent years, which, together with the large number of actors, makes the financial ecosystem in Morocco dynamic and promising. However, close coordination of the work of many of these organisations will be required to ensure joint action.

4.3 SME financing

4.3.1 Overview of available financing instruments

Given that 93% of the companies in Morocco are SMEs, their ability to access necessary financial resources is crucial for economic development and efforts to transition to greener economic practices. While self-financing allows a company to meet its financial liabilities and recourse to investors can allow companies to maintain their financial independence, in many cases access to external sources of financing will be necessary for SME development.

In conventional finance, there are several modes of financing specifically for SMEs when self-financing is insufficient. These modes are presented Box 5.

Box 5: Modes of financing available to small and medium-sized enterprises in Morocco



Bank financing

SME financing typically requires long-term borrowing as it involves financing investments that are amortised over the medium to long term. However, commercial banks traditionally favour short-term financing or require substantial collateral as their main resources come from sight or term deposits. However, there are other reasons for banks' reluctance to

Box 5: Modes of financing available to small and medium-sized enterprises in Morocco (continued)

lend to SMEs, such as the requirement for a minimum amount of self-financing for each project which, depending on its characteristics, may not be available to certain SMEs. Similarly, banks require reliable and accurate accounting documents in order to examine the risk involved, whereas the lack of management capacity in SMEs often leads to weak financial information and unreliable documents (i.e. information asymmetry). Moreover, commercial banks require high collateral and high interest rates for SMEs as they are perceived as risky investments, with this often becoming the main obstacle to bank financing for SMEs.



Venture capital

Venture capital is a form of financing, primarily for unlisted, high-risk companies with high growth potential, whereby the higher risk faced by investors will be compensated for with exceptional returns. Venture capital is an equity investment with a medium- to long-term horizon and represents an alternative to traditional bank financing. Venture capital investments are considered as investment-oriented financial intermediation activities that encourage innovation and technological development, enabling the economy to reach its full potential. Several investment funds involved in this type of investment are also members of the AMIC.²⁰



State-subsidised funds

Given its importance for supporting the national economy, state intervention is necessary to solve the problem of financing SMEs. To this end, national governments have introduced various measures to support SMEs, typically in partnership with FIs which act as intermediaries between the state and the company. This means that SMEs intending to access this funding should go through the designated banks. Through this mechanism, the state can create financing programmes specially dedicated to the creation or development of SMEs. This support is usually provided in the form of a loan with favourable conditions or a guarantee.



The stock market

In cases where an SME can access a stock market, such a financing solution can have multiple advantages. An IPO can be an attractive option, given the liquidity problems of the banking system, while a company listing makes it possible to perpetuate the company and prevent its break-up and dissolution in the event of a crisis. Moreover, the listing of an SME on the stock exchange allows it to benefit from various tax advantages, such as a reduction in corporation tax.



Participatory finance

Another mode of financing available in Morocco is Islamic finance, a form of participatory finance based on profit and loss sharing as opposed to conventional financing based on debt. Some of the products offered by this type of finance can be adapted to the specificities of SMEs.

(Source: based on Hajarabi et al., 2021)²¹

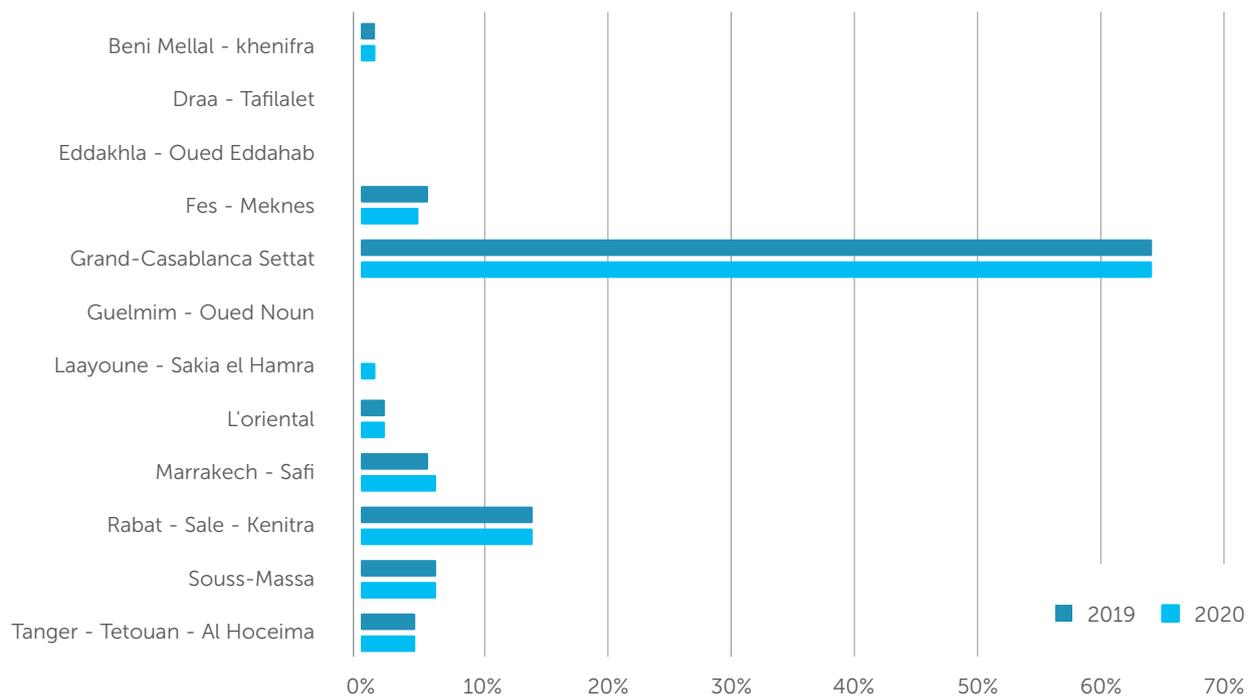
²⁰ AMIC. (n.d.). L'AMIC en quelques mots. Retrieved from <https://amic.org.ma>

²¹ Hajarabi, H., & Achibane, M. (2021). Difficulties in accessing finance for Moroccan SMEs, causes and alternative in Islamic finance. *International Journal of Accounting, Finance, Auditing, Management & Economics*, 2(6-1), 569–583. <https://doi.org/10.5281/zenodo.5737125>

4.3.2 Moroccan SME's recourse to bank financing

The Moroccan financial system has a wide variety of financial instruments available to SMEs, allowing them to access banking, equity and debt markets. Moroccan SMEs and VSEs prefer bank financing channels as they cannot resort to the stock markets as easily as large companies. According to a BAM report prepared in 2020, the total outstanding bank loans granted to SMEs in both the VSE and SME categories amounted to MAD 177.4 billion in 2020. Figure 5 shows the regional distribution of bank loans to SMEs according to the amount outstanding for 2019 and 2020.

Figure 5: Regional distribution of bank loans to small and medium-sized enterprises



(Source: OMT PME data; consolidated base of data provided by the DGI, OMPIC and CNSS)

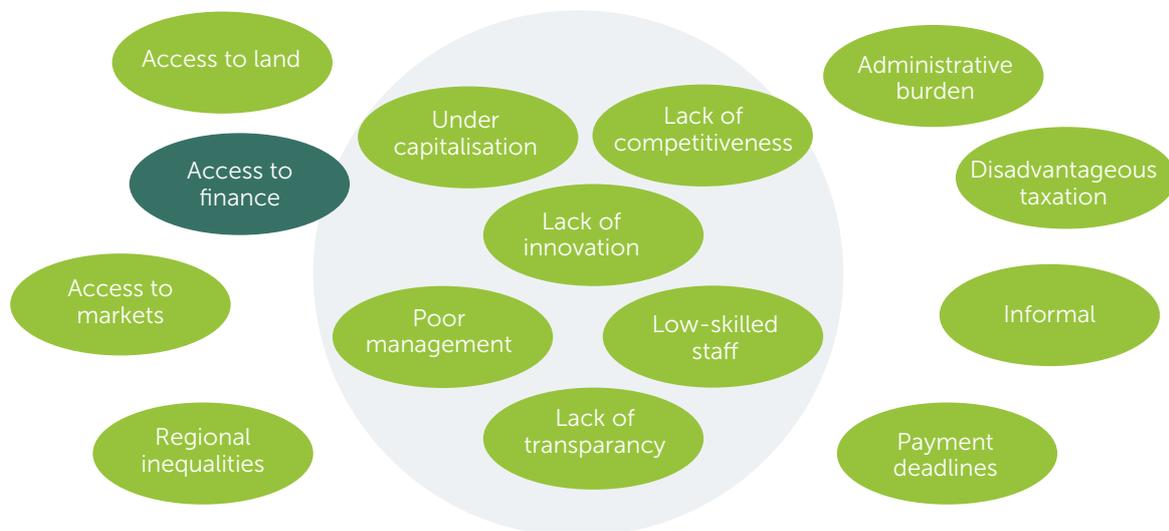
The graph above shows that 64% of the total loans granted to SMEs in 2019 and 2020 were concentrated on the Grand-Casablanca Settat region, suggesting a potential opportunity to further diversify the regional distribution of these financial flows in line with the country's regional development strategies focused on southern provinces.²² The graph also demonstrates that the share of each region remained stable from one year to another, showing that the pandemic did not have significant regional impacts.

4.4 Barriers and challenges to SMEs financing

Despite the predominance of SMEs in the Moroccan economic system, their contribution to the country's growth remains low. Indeed, several constraints prevent them from playing their role fully and seizing all the opportunities that arise at the national and international levels. These constraints may be intrinsic or extrinsic, as shown in Figure 6.

²² CESE. (2013, October). Nouveau modèle de développement pour les provinces de Sud. <https://www.cese.ma/docs/nouveau-modele-de-developpement-pour-les-provinces-du-sud/>

Figure 6: Constraints to small and medium-sized enterprises development in Morocco



(Source: the authors)

The problem of limited access to finance is one of the major challenges faced by SMEs, hindering their development processes and forcing them to focus on survival instead of innovating and conquering new markets. The difficulties encountered by Moroccan SMEs stem from the weakness of equity capital and the lack of investment interest from commercial banks. Given the multiple constraints imposed by both banks and SMEs (see Table 5), investing in SMEs is perceived to be risky. This results in banks demanding real guarantees, something which SMEs are typically unable to offer.

Table 5: Constraints to small and medium-sized enterprise access to bank finance

Constraints on the side of banks	Constraints on the side of SMEs
<ul style="list-style-type: none"> • Prudential measures • Lack of adaptation of offer • High risk • Long processes and high operational costs • Guarantees required 	<ul style="list-style-type: none"> • Information asymmetry and lack of transparency • Fragility of structure • Lack of equity • Lack of knowledge of available financial products • Low financial literacy

(Source: the authors, based on stakeholder consultations, 2022)

The reluctance of banks to finance SMEs is further accentuated by the unbalanced financial structure of SMEs, lack of transparency and low level of financial literacy.

To enable the financing and greening of SMEs, joint action is required from crediting institutions and SMEs to help resolve the situation. Public initiatives also have an important role to play in this process and should support with addressing these constraints, primarily on the SME side, by helping SMEs improve their financial literacy, the transparency of their financial reporting and the perception of risk associated with their activities. At the same time, targeted work with FIs is needed to understand how the government can best support banks with increasing their investments in SME, either via joint crediting or the inclusion of public funds, guarantee mechanisms and/or other measures concerning the regulatory, fiscal and incentive framework.

5. Analysis of the demand for green finance by SMEs

While the transition to a green economy concerns all actors in the economic fabric, particular attention should be paid to Morocco's small and medium-sized enterprises (SMEs) as these businesses represent 93% of all companies in the country and employ over 46% of its workforce. However, these businesses generate only 40% of the nation's gross domestic product (GDP) and 31% of its exports, demonstrating the growth potential of Morocco's SMEs and the need for support with integrating into global value chains. To achieve this potential, these companies require diversified and accessible financial assistance that allows them to grow in line with Morocco's green vision, in turn benefiting the national economy, bolstering the competitiveness of Moroccan SMEs in international markets and allowing the country to meet its climate and sustainability targets.

This section analyses the scale and sectoral patterns of the SME demand for green finance in Morocco by observing the climate finance demand from SMEs that can be triggered by national and international climate-focused policies (Section 5.1). It also analyses the greening potential of SMEs in various sectors of the Moroccan economy (Section 5.2), before presenting the overall findings of the demand analysis (Section 5.3).

5.1 Green financing opportunities presented to SMEs

Given the challenge of obtaining figures which identify the demand for SME green financing in Morocco, it was considered appropriate to analyse Morocco's NDC, its public procurement and the CBAM to assess the potential for developing green finance for SMEs, taking the combined actions planned under these policies as a proxy for green finance demand.²³ The analysis in the following sections will demonstrate that, while each of these initiatives are very different, they all constitute an opportunity for greening Moroccan SMEs.

5.1.1 Opportunities presented to SMEs in the framework of the NDC

Morocco's revised NDC, published in June 2021, brings together actions to mitigate GHG emissions and adapt to the varying kinds of effects of climate change, including:



*Implementation of new technologies, practices, processes, financing and investment

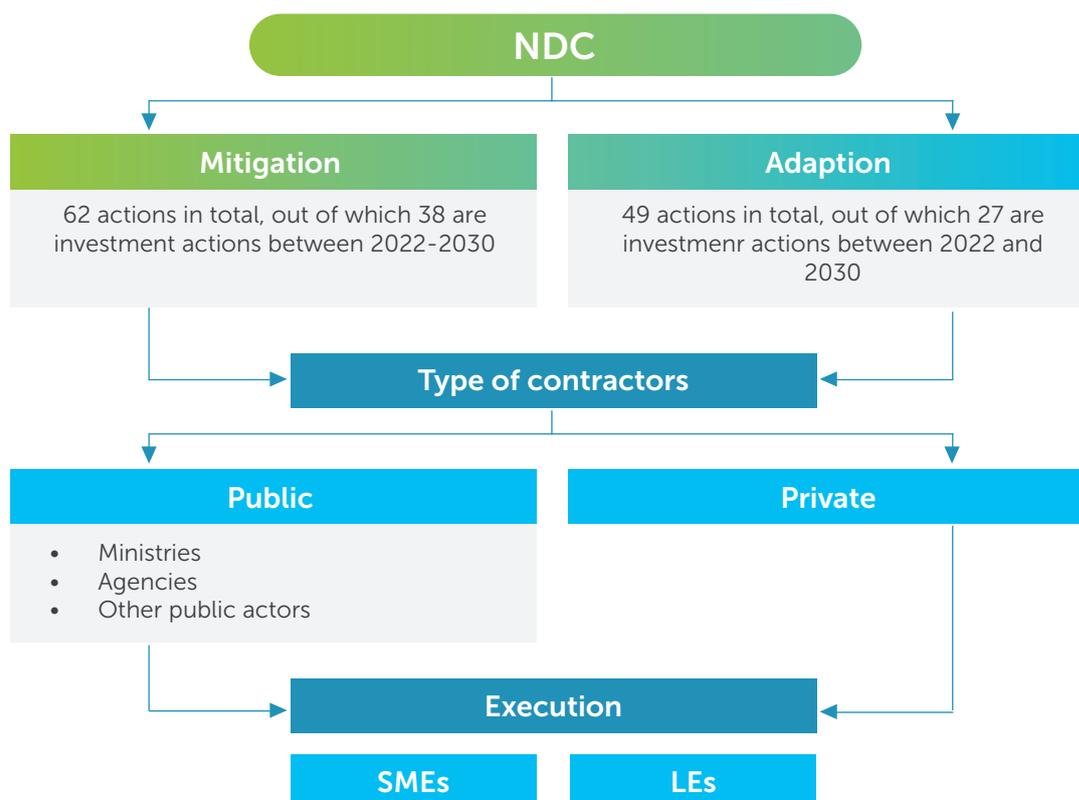
²³ These analyses were undertaken on the initiative of the ECI.

It was estimated that the mitigation component of Morocco's first NDC would require USD 50 billion, including USD 24 billion of international financing for the conditional NDC commitment. Furthermore, the adaptation actions foreseen in the NDC will require another USD 35 billion.²⁴ The investment estimation figures were then revised using Morocco's updated NDC from 2021, resulting in the requirement of USD 38.8 billion for mitigation actions, including USD 21.5 billion for conditional actions, and USD 40 billion for adaptation actions.

Public procurement would represent 70% of these costs, while private sector investment is expected to cover the remaining 30%. The large volumes of investment which will be directed to climate-aligned projects is therefore expected to create favourable conditions for Moroccan companies, including SMEs, to expand in climate-aligned directions.

Morocco's NDC includes 62 mitigation actions, 38 of which are investment actions set to take place between 2022 and 2030, and 49 adaptation actions, 27 of which are investment actions planned between 2022 and 2030.²⁵ Some of these actions target public entities, such as ministries, public agencies, public offices, local authorities or other public bodies, while others focus on private organisations. Their execution will either engage with SMEs directly or involve LEs with SMEs as subcontractors. Figure 7 summarises this overview of the updated NDC actions and includes planning, project management and implementation.

Figure 7: Analysis of the updated Moroccan nationally determined contribution from the perspective of principals and contractors



(Source: the authors, based on analysis of Morocco's updated NDC, 2022)

²⁴ AfDB. (2021, March). NDC implementation in Morocco through green investments by private sector: A scoping study. <https://www.africandchub.org/sites/default/files/2021-06/Morocco%20Scoping%20Study-31.03.pdf>

²⁵ With the exception of the water sector, which presents actions for three different time horizons: 2030, 2040 and 2050.

The following sections provide a detailed review of these actions in terms of investment volume and the potential that both the mitigation and adaptation components have to be implemented by companies, including SMEs.

Mitigation component

Implementation of NDC investment actions by SMEs and LEs, UN: in June 2021, Morocco published its updated NDC, increasing its decarbonisation ambition to 45.5% against the business-as-usual scenario and marking 18.3% of this reduction as unconditional. The mitigation component of the NDC covers seven sectors, namely energy production, waste, industry, forestry and land use, agriculture, transportation and residential, and is now including two new industrial sectors: cement and phosphates. Inclusion of these sectors also encompasses innovative sectoral actions, such as carbon storage in phosphates and carbon capture and storage in the cement industry.

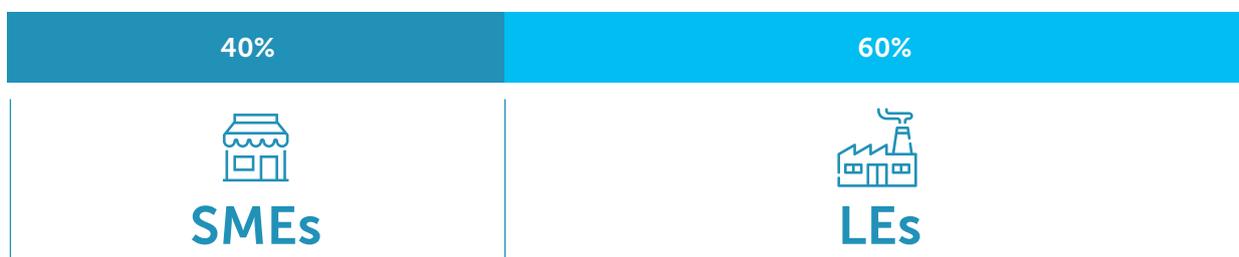
This updated NDC target relies heavily on emission reductions in the energy sector, reducing Morocco’s dependence on exported energy sources and significantly increasing RE generation to 52% by 2030. EE is also key, as measures will be implemented across various sectors. Measures in the industrial sector are expected to result in the second-largest emission reductions, followed by those in agriculture.

Implementation of the NDC is supported by relevant sectoral strategies, including:

- Generation Green 2020–2030;
- The Halieutis Plan;
- The Morocco Solar Plan;
- The Integrated Wind Energy Programme;
- EE in buildings and the transport industry;
- The National Irrigation Water Saving Programme;
- The National Programme for the Management of Household and Similar Waste; and
- The National Liquid Sanitation Plan.

Within the NDC mitigation component, 40% of investment actions, corresponding to USD 11.1 billion, would be implemented by SMEs, while the remaining 60% of actions (representing USD 16.6 billion) would be implemented by LEs (see Figure 8).

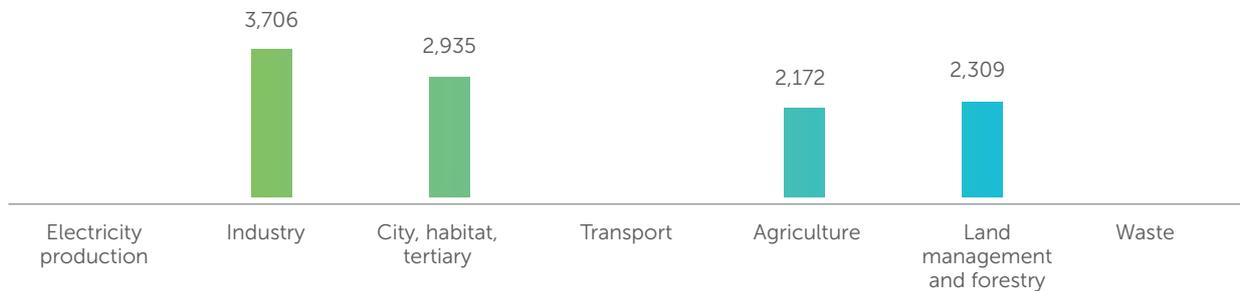
Figure 8: Implementation of investment actions in the mitigation component of the updated Moroccan nationally determined contribution by enterprise type



(Source: the authors, based on analysis of Morocco’s updated NDC, 2022)

The sectoral split of the investment planned to be executed by SMEs and LEs is shown in Figure 9 and Figure 10, respectively. These graphs show that the majority of investment in sectors such as industry, urban development and habitat, agriculture, land and forest management are expected to be delivered by SMEs, while LEs are expected to carry out investments in the energy and waste sectors.

Figure 9: Volume of investment actions by small and medium-sized enterprises in the mitigation compartment of Morocco's updated nationally determined contribution (USD million)



(Source: the authors, based on analysis of Morocco's updated NDC, 2022)

Figure 10: Volume of investment actions performed by large enterprises in the mitigation section of Morocco's updated nationally determined contribution (USD million)



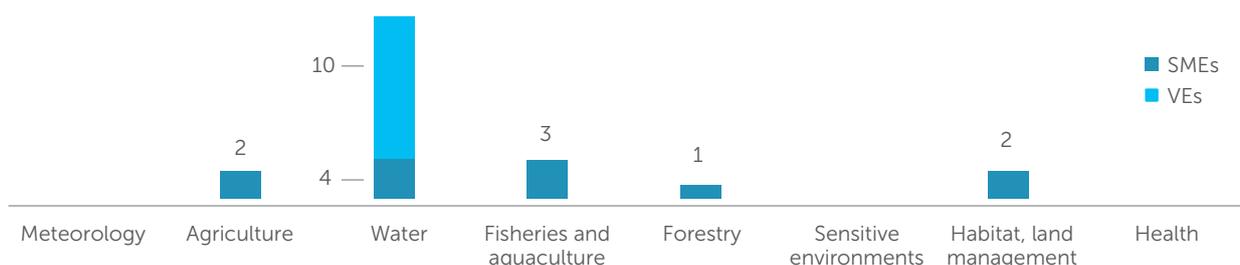
(Source: the authors, based on analysis of Morocco's updated NDC, 2022)

Adaptation component

Implementation of NDC investment actions by SMEs and LEs: the adaptation section of Morocco's NDC builds off Morocco's National Adaptation Plan, referencing new sectors and more comprehensive targets compared to the 2015 NDC. The sectors covered by Morocco's adaptation component include agriculture, water, fisheries, forestry and health, among others.

Of the planned adaptation actions which represent investment actions from public procurement, 12 that would be implemented by SMEs, while 10 of the remaining actions would be implemented by LEs (see Figure 11). This distribution demonstrates that adaptation actions in all sectors excluding water are expected to be implemented by SMEs, with water instead being dominated by actions from LEs. Furthermore, the remaining action from private commissioning would be implemented fully by SMEs.

Figure 11: Distribution of the investment actions of the adaptation component of the nationally determined contribution by company type (public procurement)



(Source: the authors, based on analysis of Morocco's updated NDC, 2022)

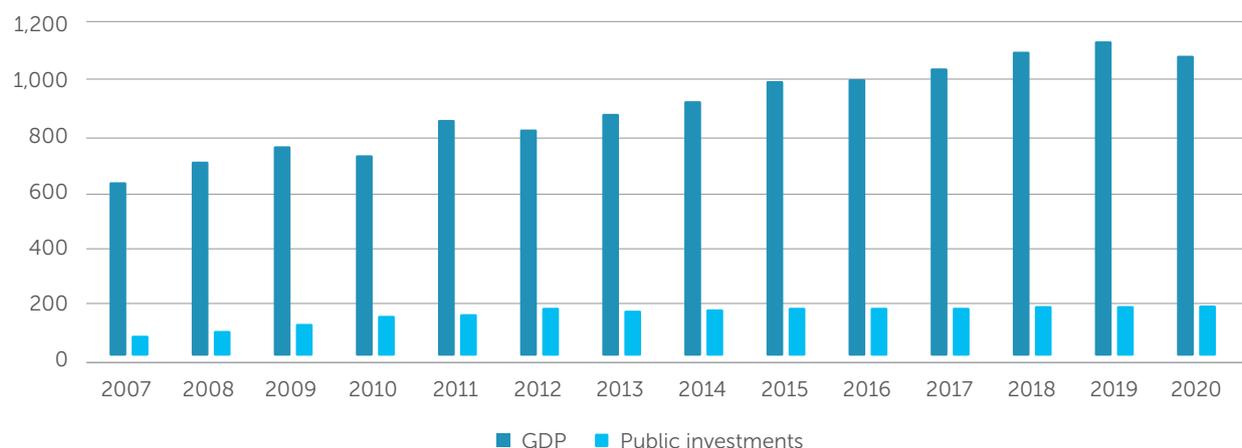
It is expected that 55% of all actions will be associated with new investments, while 81% of these adaptation-related investments will be delivered through public procurement. Given that the estimated cost of implementing the adaptation component of the Moroccan NDC (USD 40 billion) covers only some quantified sectors within the adaptation component, the share of new investment from the public procurement is likely to be in excess of USD 17 billion. As more than half of all NDC actions are expected to be delivered by SMEs, the adaptation project will also represent a significant opportunity for Moroccan SMEs, particularly in the agriculture, forestry and water sectors. This further confirms that NDC implementation catalysed by public investment in low-carbon actions will create significant opportunities for Moroccan SMEs.

5.1.2 Opportunities for SMEs in public procurement

Public investment and procurement contribute to multiple purposes, such as the creation of jobs in the private sector, reinforcement of the national economy's competitiveness and improvement of Morocco's investment climate, the attractiveness of investments and the resilience of the national economic system in a broader sense. Over the last decade, public expenditure in Morocco has continued to grow consistently in line with GDP growth, contributing to the development of the national economy (see Figure 12).

Figure 12: Share of public investment in Morocco's gross domestic product, 2007–2020^{26,27}

Million MAD



(Source: the authors, based on data from Trading Economics, and the 'Note on the regional distribution of investment' within the 'Finance Bill 2020')

The crucial role of SMEs and the recently created enterprises in job creation have been demonstrated by numerous international experiences. SMEs are particularly crucial in developing countries and economies in transition, as they have the capacity for quick adjustment, working with less capital but more intense labour and having a lower management cost (Keskin et al., 2010).²⁸ Additionally, some studies show that SMEs typically create "better" jobs when measured in employee well-being (Vroonhof et al., 2011).²⁹ In Morocco, the persistent

²⁶ Trading Economics. (n.d.). Morocco GDP. Retrieved from <https://tradingeconomics.com/morocco/gdp>

²⁷ MEF. (2020, June 8–9). *Projet de Loi de Finances pour l'année budgétaire 2020: Note sur la répartition régionale de l'investissement* [Finance Bill for the fiscal year 2020: Note on the regional distribution of investment]. https://www.chambrede representatives.ma/sites/default/files/nrri_fr.pdf

²⁸ Keskin, H., Şentürk, C., Sungur, O., & Kiriş, H. M. (2010). The Importance of SMEs in Developing Economies. 2nd International Symposium on Sustainable Development, Sarejvo, Bosnia and Herzegovina. <https://core.ac.uk/download/pdf/153446896.pdf>

²⁹ Vroonhof, P., de Kok, J., Verhoeven, W., Timmermans, N., Kwaak, T., Snijders, J., & Westhof, F. (2011). Do SMEs create more and better jobs? EIM Business & Policy Research. https://www.researchgate.net/publication/216757815_Do_SMEs_create_more_and_better_jobs

weakness of SMEs would largely explain the weakness of economic growth and job creation, despite a remarkably high investment rate.^{30,31} Among the many factors contributing to this structural weakness is the approach to public contract evaluation which, in its current form, is not favourable to SMEs and tends to give priority to larger companies. Additionally, the concentration of investment opportunities is higher in the Tangier-Safi geographical axis, which may hinder the possibility of growth for SMEs in other regions less exposed to or informed about these opportunities.

Moroccan public procurement is characterised by a high degree of concentration in a small number of national companies and public organisations. 73% of the total procurement from state and local authorities is directed to 700 companies, i.e. just 3% of Moroccan companies overall. Furthermore, more than half of public procurement is awarded to approximately 100 companies.

Overall, the structure of public procurement is not particularly unfavourable to VSEs,³² representing 64% of Moroccan companies,³³ as contracts of less than MAD 1 million account for approximately 75% of state and local authority contracts (of which 65% are service contracts). However, in terms of value, these contracts of less than MAD 1 million constitute only 8% and 18% of the procurement volumes for state and local authorities, respectively. This demonstrates the reduced access SMEs have to these orders, resulting in the current access rate of 10% for state and local authority procurement contracts.

The State Exemplarity Pact: a lever for greening SMEs

In Morocco, the public administration is required to set an example in terms of implementing the NSDS. To achieve this objective, the State Exemplarity Pact (hereinafter the Pact) was developed to promote the governance of sustainable development and set out the requirements for national and local administrations to lead by example with regard to the implementation of sustainability principles. Set up as part of the implementation of the NSDS, the Pact represents an opportunity for SMEs to green their businesses and further expand their sustainable offering.³⁴ The Pact has the following objectives:

Objective 1: to generalise environmental approaches in public buildings.

Objective 2: to include public administrations in the logic of waste management and recovery.

Objective 3: to strengthen the initiatives of a responsible employer state.

Objective 4: to integrate a participatory approach and improve transparency.

Objective 5: to promote sustainable and responsible public procurement.

Objective 6: to develop the exemplary role of public actors in the field of sustainable mobility.

Some of these objectives, such as Objectives 1, 2, 5 and 6, have strong potential to stimulate green investments, with Objective 5 in particular offering an opportunity for greening public investments by integrating adaptation, decarbonisation, depollution and resilience requirements and criteria into the general and special clauses of Morocco's public procurement decree.

³⁰ GIZ, the General Treasury of the Kingdom, & Comité National de l'Environnement des Affaires [National Business Environment Committee]. (2020). Diagnostic report on the impact of public procurement on economic development.

³¹ IFC, & World Bank Group. (2019, June). Creating Markets in Morocco: Country Private Sector Diagnostic.

³² Here, the VSE is defined as a company with a turnover of less than MAD 3 million and a workforce of less than 10 people.

³³ El Amine Soukaina. "Distressed SMES in Morocco: Study on Common Characteristics" *Quest Journals Journal of Research in Business and Management*, vol. 08, no. 01, 2020, pp 36-44. <https://www.questjournals.org/jrbm/papers/vol8-issue1/E08013644.pdf>

³⁴ The State Exemplarity Pact reflects the formal commitment of the Moroccan administration to exemplarity in the field of sustainable development and serves as a reference for the development of ministerial plans for exemplary administration. Kingdom of Morocco. (2019). Pacte de l'Exemplarité de l'Administration [State Exemplarity Pact]. <http://www.mhvp.gov.ma/wp-content/uploads/2020/04/Pacte-Exemplarite-Administration.pdf>

In this context, the reform was initiated in May 2022 with the amendment of the decree governing public procurement. The implementation of the new decree will allow, in addition to Circular No. 15/2020 on "the operationalisation of the national preference and encouragement of Moroccan products, within the framework of public procurement", the creation of a SME working group focusing on the green economy sectors, including EE technologies and the development of small and medium-scale RE generation, green industrial zones and technologies for water efficiency, purification and the reuse of purified water, among others.

The implementation of this Pact is still at an early stage as most departments are in the process of finalising their diagnostics (e.g. energy and environmental audits) in order to define the investment actions to be implemented. As such, the value of this market is yet unknown. Nevertheless, once the implementation of the Pact commences, it will represent another opportunity to support the development of green SMEs in Morocco.

5.1.3 Opportunities presented to SMEs in the framework of CBAM as a lever for greening

The EU is playing a leading role in the international effort to combat climate change. The European Green Deal sets out a clear path towards the EU's ambitious target of reducing its GHG emissions by 55% compared to 1990 levels by 2030 and becoming a climate-neutral continent by 2050.³⁵

The CBAM is part of the 'Fit for 55' package of reforms proposed by the European Commission as part of the European Green Deal. Sectors which are both covered by the EU Emissions Trading System (ETS) and heavily exposed to international trade with partners outside the EU, such as steel and aluminium, have long argued that the EU ETS puts them at a disadvantage compared to competitors from countries with lower GHG emission reduction targets and less ambitious carbon pricing policies. To complement the EU-ETS, the CBAM, set to come into force in 2023, will cover direct emissions embedded in goods imported into the EU to create a level playing field for European companies under the EU ETS and their non-EU competitors.

The CBAM scheme is based on the purchase of emission certificates by importers to the EU to offset the carbon footprint of products imported into the EU. In its first phase, the CBAM will be applied to goods from the following sectors, representing products with a high risk of emissions leakage:



Cement



Electricity



Fertilisers



Iron



Steel



Aluminum

Given the strong economic ties between Morocco and the EU, the CBAM, once adopted, may have a significant impact on Morocco-EU trade. Although it aims to combat climate change, an issue of vital interest to Morocco, the CBAM will impose substantial costs on Moroccan exports, especially if it is extended to other sectors in the future.³⁶

The CBAM highlights the seriousness with which the EU, Morocco's largest trading partner, views the need to tackle climate change and the likelihood of regulatory and other measures to curb emission-intensive products. Morocco should heed this message and accelerate its own decarbonisation efforts, such as implementing various mitigation-focused measures that will be beneficial for Morocco itself (i.e. so-called 'no-regret' measures).

³⁵ European Commission. (2021, July). Carbon Border Adjustment Mechanism: Questions and Answers. https://ec.europa.eu/commission/presscorner/detail/fr/qanda_21_3661

³⁶ Berahab, R., & Dadush, U. (2021). What will be the effect of the EU's Carbon Border Tax on Morocco, and how should Morocco react?

The Moroccan government has already started implementing certain actions to tackle this challenge, such as introducing Framework Law No. 18-95 establishing a new Investment Charter, aiming to facilitate access to new financing for economic recovery after the pandemic and supporting RE use by businesses (see Section 5.1 for more information). However, more incentives for technical improvements and EE measures are needed.³⁷ This implies developing and implementing GHG emission reduction actions focused on EE and the reduction of process emissions from exporting manufacturing companies. This, in turn, constitutes an opportunity for greening companies which export to the European area, despite most of them being large companies.

5.2 Analysis of the greening potential of Moroccan economic sectors

The aim of the analysis of the demand for green financing among SMEs in Morocco is to identify the sectors that present a strong potential for both greening and expansion. The analysis was undertaken using the data and methodology described in the following subsection.

5.2.1 Data and methodology

Data

The analysis relies on statistics from the OMTPE for 2019 and 2020, drawn from the following sources:

- The General Tax Directorate (DGI), which collects aggregate national information on corporate taxes;
- The Moroccan Office of Industrial and Commercial Property (OMPIC), which receives the annual company balance sheets; and
- The Caisse Nationale de Sécurité Sociale [National Social Security Fund] (CNSS), which receives the declarations of social security coverage for employees of companies.

The socio-economic statistics of the OMTPE relate to a number of enterprises and their typology (e.g. LE, SME and/or VSE), number of employees, turnover, value added and shares of investments. This data is provided in accordance with Morocco's economic activities as described in the Nomenclature Marocaine des Activités [Moroccan Classification of Activities] (NMA)³⁸ and structured by activity sector, subsector and economic activity.

Methodology

The proposed methodology consists of two main steps, the first of which focuses on greening potential while the latter assesses the potential for scaling. These steps are as follows:



³⁷ Berahab, R. et al.

³⁸ La Nomenclature Marocaine des Activités 2010. Retrieved from http://www.sgg.gov.ma/portals/0/AvantProjet/3/nomenclature_marocaine_Fr.pdf

³⁹ EDFI. (2020, October). Harmonized EDFI Exclusion List. <https://www.ifu.dk/wp-content/uploads/2021/09/EDFI-exclusion-list.pdf>

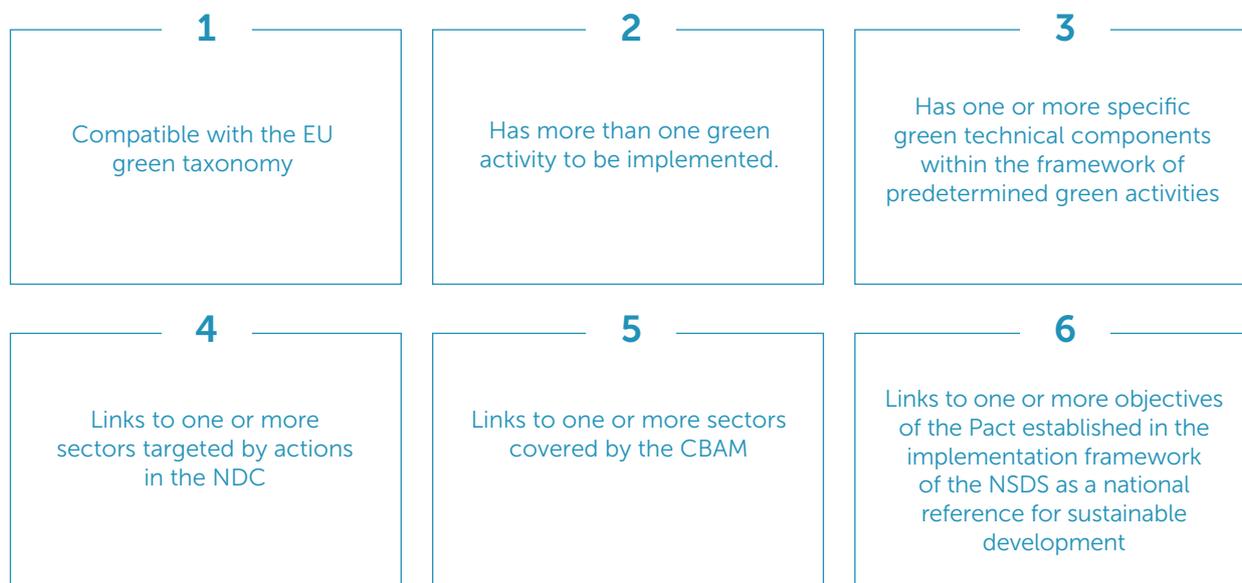
Figure 13: Methodology for selecting areas with high greening and scaling potential



(Source: the authors, 2022)

Step 1: Qualitative analysis to reflect the potential for greening

The first step of the methodology aims to highlight the economic sectors with high greening potential. The analysis is undertaken with reference to six criteria for defining greening potential:



These criteria are built in a way where both international (i.e. EU green taxonomy and CBAM sectors) and national (i.e. Morocco’s NDC and NSDS) measures are combined to reflect both the global progress towards the principals of the green economy and the specific situation and priorities of Morocco.

The assessment of the Moroccan economic activity sectors was undertaken using a binary qualification, i.e. meets the criteria = 1/does not meet the criteria = 0. The final score is counted out of six possible points for each economic sector. Only those sections with a score of three or more (i.e. meeting at least half of the criteria) are retained for the next stage of the analysis. Full methodology and assessment options for each criterion are presented in Annex VII.

Step 2: Analysis of the scaling potential

The purpose of this step is to identify the branches and sub-branches that contain significant numbers of companies for each of the nine activity sections selected in Step 1. This, in turn, will highlight those sub-branches which have a high potential for scaling, thereby justifying investment in financing instruments which support their green components.

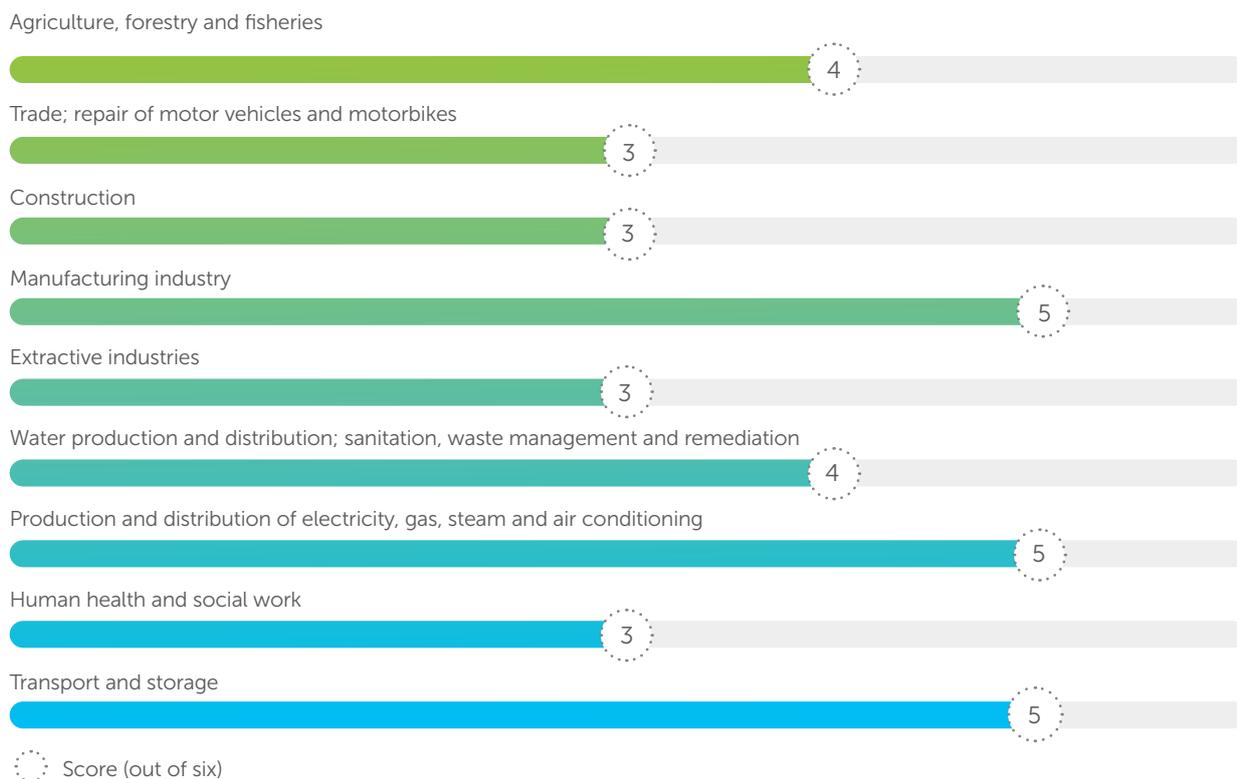
To undertake this assessment, a minimum value for the number of enterprises has been set for each sector to retain only those with a greater potential for scaling. In the case of the manufacturing industry, which has a wide range of industries, a minimum value for the number of enterprises has been set for each industry, ensuring that any provided solutions can be further spread to other businesses in the sector. The turnover of analysed sectors was also reviewed to understand the share of economy which they represent.

Following this, in line with the 'EDFI Principles for Responsible Financing of Sustainable Development' published in 2020, activities excluded by the EDFI were eliminated from assessment (see Annex X).

5.2.2 Results of the assessment

Step 1: during Step 1 of the assessment, nine of the 21 analysed economic activities/sectors were selected, having achieved a score of three and more. The sectors which obtained the highest scores for greening potential are the manufacturing industry, production and distribution of electricity, gas steam and air conditioning and transport and storage. These sectors received high scores primarily due to their high absolute energy consumption making efficiency gains particularly important and leading them to be prioritised in multiple Moroccan and international climate policies. The list of selected sectors and their respective scores is presented in Table 6, while the full assessment list for Step 1 can be found in Annex VII.

Table 6: Summary of the sections retained after applying Step 1 of the analysis



(Source: the authors, 2022)

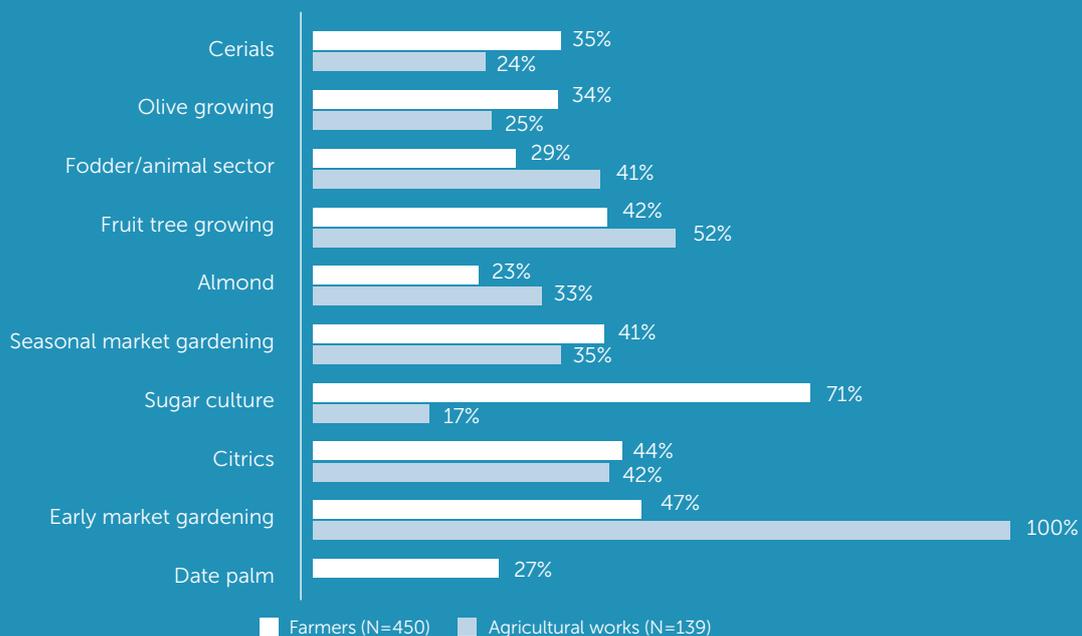
Additionally, a case study considering demands from another qualifying sector, agriculture, is presented in Box 6 on the following page.

Box 6: Case study: demand assessment from a selected sector: agriculture

The agricultural sector, in representing almost 15% of Morocco's GDP, is particularly important to the analysis of SME access to financing as many businesses in this sector tend to be small. A study undertaken by the International Finance Corporation (IFC)⁴⁰ and surveying groups of farmers looked to identify investment trends and financing needs in the sector. The survey showed that there is a correlation between the level of structuring for the sector and its rate of access to banking services (see Figure 14). The following conclusions can be highlighted:

<p>The rate of bank access by sector, determined by the proportion of farmers within that sector with bank accounts, is higher for the sugar crops sector, which is the most organised sector.</p>	<p>The fodder and almond sectors are the least structured and have the lowest rate of bank access.</p>	<p>The large agricultural groups declare their employees to the CNSS, resulting in a need to open a bank account. Consequently, all agricultural workers sampled in the early vegetable sector had access to banking services.</p>
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Figure 14: Bank account holding rate by agricultural commodity chain in Morocco



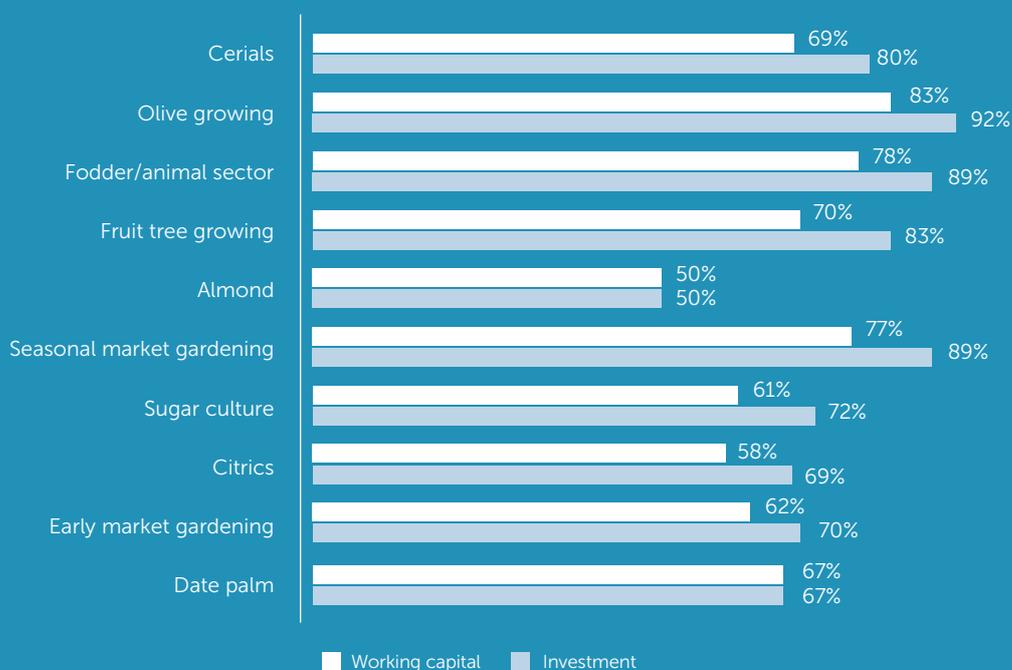
(Source: IFC, 2022)

The IFC study also assessed the specific needs per agricultural sector, which included working capital and investment financing (e.g. equipment purchases) according to the sectors that represent different stages of maturity within the economic market (see Figure 15). The analysis demonstrated that all sectors researched showed high levels of financing requirements, with the olive growing, fodder and seasonal vegetable sectors demonstrating particularly sizeable rates of investment need.

⁴⁰ IFC. (2022). Agri-Finance Demand Assessment in Morocco.

Box 6: Case study: demand assessment from a selected sector: agriculture (continued)

Figure 15: Share of farmers' who need finance by agricultural sector



(Source: IFC, 2022)

(Source: the authors, 2022)

Step 2: by applying the methodological approach of this step, 34 branches and 73 sub-branches were selected. The full assessment table is presented in Annex VII, while the list of selected branches containing at least one selected sub-branch is shown in Table 7. The assessment demonstrated that the largest number of qualifying companies are concentrated in the sectors of wholesale and retail trade, land and pipeline transport and, within the broader construction sector, building contraction and specialised construction work. These sectors also tend to have the largest turnover.

Table 7: Step 2 assessment results: qualifying sectors and subsectors

Sector	Subsector	Number of companies in subsector	Turnover of companies in subsector (MAD million)
Agriculture, forestry and fisheries	Crop and animal production, hunting and related services	6,688	7,406
Trade; repair of motor vehicles and motorbikes	Retail trade, except for motor vehicles and motorbikes	21,169	47,769
	Wholesale trade, except for motor vehicles and motorbikes	60,877	418,667
	Trade and repair of motor vehicles and motorbikes	13,380	44,794

Sector	Subsector	Number of companies in subsector	Turnover of companies in subsector (MAD million)
Construction	Building construction	21,693	76,729
	Specialised construction work	19,263	137,609
	Manufacture of other non-metallic mineral products	1,693	24,662
	Manufacture of electrical equipment	559	33,490
	Manufacture of machinery and equipment n.e.c.	407	4,183
	Furniture manufacture	757	4,371
	Manufacture of rubber and plastic products	555	7,055
	Manufacture of computer, electronic and optical products	119	372
	Manufacture of fabricated metal products, except for machinery and equipment	3,784	23,512
	Textile manufacturing	1,208	6,504
	Printing and reproduction of records	4,648	9,870
	Automotive industry	239	9,039
	Chemical industry	881	40,128
	Clothing industry	5,574	15,565
	Pharmaceutical industry	117	16,933
	Food industry	5,952	52,168
	Metallurgy	174	4,915
Repair and installation of machinery and equipment	1,843	5,013	
Extractive industries	Other extractive industries	922	5,173
	Metal ore mining	659	60,627
Water production and distribution; sanitation, waste management and remediation	Water collection, treatment and distribution	412	15,644
Production and distribution of electricity, gas, steam and air conditioning	Production and distribution of electricity, gas, steam and air conditioning	506	56,876
Human health and social work	Activities for human health	18,044	9,581
Transport and storage	Warehousing and auxiliary transport services	8,287	28,563
	Air transport	541	1,474
	Land and pipeline transport	37,628	37,395

(Source: the authors (2022) based on data extracted on 13 Jun 2022, 13.15 UTC [GMT] from OECD.Stat)

These sectors will represent particular interest for the Moroccan decarbonisation strategy given their emission reduction potential, associated scaling opportunities and importance for national and international climate policies. The analysis therefore recommends that this extended list of economic activities be further considered in the analysis of the supply of green finance (Section 6) and, subsequently, the analysis of the existing gap (Section 7), in addition to guiding the recommendations around which the instrument will be structured (Section 8).

Despite the significant potential for greening and its associated demand, there are a number of barriers which prevent this demand from effectively accessing the available green finance offer. These barriers include:

- **Low interest and awareness from SMEs:** many SMEs are not aware of greening opportunities and therefore do not consider and seek the implementation of green projects. In addition, a large proportion of SMEs remain unaware of the green finance offers available to them in the Moroccan market. During the stakeholder consultation undertaken as part of this project, this observation was raised mainly by the commercial banks consulted, some of whose clients were not informed of green solutions and did not even know that they existed.
- **Inherent characteristics of SMEs:** SMEs are generally less structured and insufficiently equipped to be eligible for existing offers in the context of investor requirements that are sometimes unsuited to the particularity of Moroccan SMEs. Added to this is the lack of solvency and undercapitalisation of SMEs, with current offers requiring a minimum of 20% equity. In Morocco, equity investors are also faced with a limited pipeline of viable SMEs willing to open their capital. Targeted support to improve governance of SMEs could potentially contribute to an increase in the number of SMEs eligible for meeting investors requirements.
- **Inherent characteristics of green projects:** the cash flow trends of green projects generally tend to be different from regular investment, bringing about specific investment needs. Green projects are relatively costly at first and their profitability occurs in the medium to long term, further increasing transaction costs. A fiscal incentive framework that favoured green projects and SMEs could be put in place to address this issue.

5.3 Main findings

The policy developments taking place both in Morocco and internationally indicate a strong commitment to the principles of the sustainable economy and the green economic transition. This, in turn, will result in growing opportunities for SMEs to expand their activities in terms of delivering green products and services and greening their own operations. The main findings associated with the analysis of the green finance demand are as follows:

1

Growing governmental procurement of green products and services: in line with the Moroccan NDC, the planned actions in the mitigation and adaptation domains will require USD 38 billion and USD 40 billion, respectively. 70% of this financing will be delivered by the government.

2

SME share in the delivery of the NDC: SMEs are expected to play an important role in delivering Morocco's NDC, being set to implement, either directly or via subcontracting to LEs, approximately 40% and 52% of the mitigation and adaptation actions proposed in the NDC, respectively.

3	<p>Sustainable principles in public procurement: the Moroccan government is looking to better incorporate sustainable development principles in its operation and procurement in line with the NSDS's State Exemplarity Pact, which is expected to come into action shortly.</p>
4	<p>SME participation in public procurement: while the government represents a great opportunity for SMEs, there are inherent challenges for smaller companies seeking to get involved in the Moroccan public procurement system, with LEs often being favoured for procurement instead.</p>
5	<p>Growing international pressure to decarbonise: international climate policy developments, such as the CBAM, create additional reasons for Moroccan companies to decarbonise their operations via EE and low-carbon energy measures.</p>
6	<p>Sectors with high greening potential: the assessment of the Moroccan economy helped to identify sectors which, based on national and international developments, are expected to have the highest demand for green finance. This selection identified nine priority sectors, including energy generation, manufacturing and transport.</p>
7	<p>Sectors with the highest scaling potential: the assessment has also demonstrated that sectors with the highest scaling potential (i.e. the largest number of qualifying companies) are concentrated in the sectors of wholesale and retail trade, land and pipeline transport and, within the broader sector of construction, building contraction and specialised construction work. These sectors also tend to have the largest turnover, thereby representing areas of high importance to Moroccan economic growth.</p>
8	<p>Existing barriers to growing green finance demand: while SMEs would benefit from seeking green finance, and considering the significant greening potential in the Moroccan economy, the demand to date remains limited. This is due primarily to a lack of awareness around existing opportunities for accessing green finance. The difficulty of financing SMEs and green projects which have characteristics less attractive to traditional finance providers also represents a substantial challenge.</p>

6. Analysis of the supply of green finance by SMEs

6.1 Policy framework for SMEs financing

Promoting access to finance for SMEs cannot be achieved without effective regulatory and institutional frameworks and support measures. The establishment of these frameworks has made it possible to alleviate certain problems with access to finance for SMEs. To this end, several projects have been initiated by public authorities in Morocco to improve the SME financing environment. In the absence of a specific policy framework for green SME financing, the analysis to follow will present the general provisions for SME financing, with a particular focus on measures that have been put in place specifically for the promotion of green financing for SMEs.

6.1.1 Legislative and regulatory framework

The legislative and regulatory framework for SME financing in Morocco is based on the following three components. These components and, in particular, their recently implemented green elements will be analysed further in this section.

Figure 16: Legislative and regulatory framework



(Source: the authors, 2022)

SMEs Charter

Law No. 53-00, establishing the SMEs Charter, constitutes the reference framework implemented by the state to promote activities and support the creation of SMEs. To achieve its objectives, several provisions are included in the SMEs Charter. In terms of financing, the charter provides for the establishment of a certain number of financing bodies that are subject to specific legislation: collective capital investment funds, capital investment companies, regional financing companies, mutual and cooperative credit organisations, venture capital organisations and guarantee funds. In addition to this existing charter, a new Investment Charter is expected to be approved soon under Framework Law No. 18-95, currently being revised by the government (see box 7).

Box 7: Framework Law No. 18-95 – new Investment Charter

The Framework Law No. 18-95, currently under revision by the government as part of the new Investment Charter, reinforces the specific support mechanism intended for SMEs. This charter will make it possible to accelerate post-COVID economic recovery and reaffirm Morocco’s position as an attractive destination for international investment. Under this Framework Law, a specific provision for VSEs and SMEs is planned with the reduction of investment programmes requiring state support from MAD 100 million to MAD 50 million. In terms of access to finance, there are plans to diversify the modes of financing, facilitate access to the capital market and put in place innovative financing solutions. The new charter also provides measures for reforming the energy sector and promoting the use of RE.

(Source: the authors, 2022)

This charter is anticipated to further financing support for SMEs in its focus on reforming the energy sector and the use of RE, bringing a sustainability angle to SME financing and supporting SMEs with greening their operations.

Banking regulations

Banking sector regulations are crucial for SME financing. In particular, this refers to the regulations of the BAM, together with the regulations for the wider banking sector in the country.

BAM regulation on SME financing: BAM regulations have provided measures for supporting SME financing since 2012. The key measures implemented by the BAM over the last decade include providing advances to commercial banks financing SMEs, the extension or refinancing of SME loans and a special refinancing line. This demonstrates the active role of the BAM in supporting the greater banking system with providing assistance to Moroccan SMEs. The BAM is a member of the Alliance for Financial Inclusion (AFI) and has been appointed to co-chair a working group on inclusive green finance (IGF). This working group aims to promote the deployment of policies designed to strengthen the resilience of rural populations and women to climate change and the financing of green and sustainable projects by the banking sector. This working group also focuses on the promotion of the AFI's '4P Framework of Inclusive Green Finance', namely provision, promotion, protection and prevention. For example, the BAM recently co-hosted an AFI workshop in Rabat aiming to increase understanding of the 4P Framework amongst Moroccan stakeholders with regard to financing applications for Moroccan companies.⁴¹ The BAM is also piloting the work of the subgroup dedicated to green credit guarantee mechanisms for SMEs.

Directive on the Financial Risk Management Framework for Climate Change and the Environment: the Regulatory Directive No. 5/W/2021 on the management of financial risks related to climate change and the environment was signed by the BAM on 5 March 2021. This directive constitutes a benchmark of good practice for credit institutions and similar bodies with a view to establishing a management system for financial risks related to the environment (including climate change) and to ensure the measurement, management, monitoring and control thereof.

Articles 7 and 8 of this directive provide incentives for green projects, while Article 2 invites FIs to refer to internationally recognised taxonomies to identify sustainable activities, given the absence of a national taxonomy or other references. Moreover, the BAM is working internally on a simplified green taxonomy to be adopted by the banking sector in Morocco, taking the NDC as a benchmark and recognising projects that contribute directly or indirectly to the objectives of the NDC.

Capital market regulations

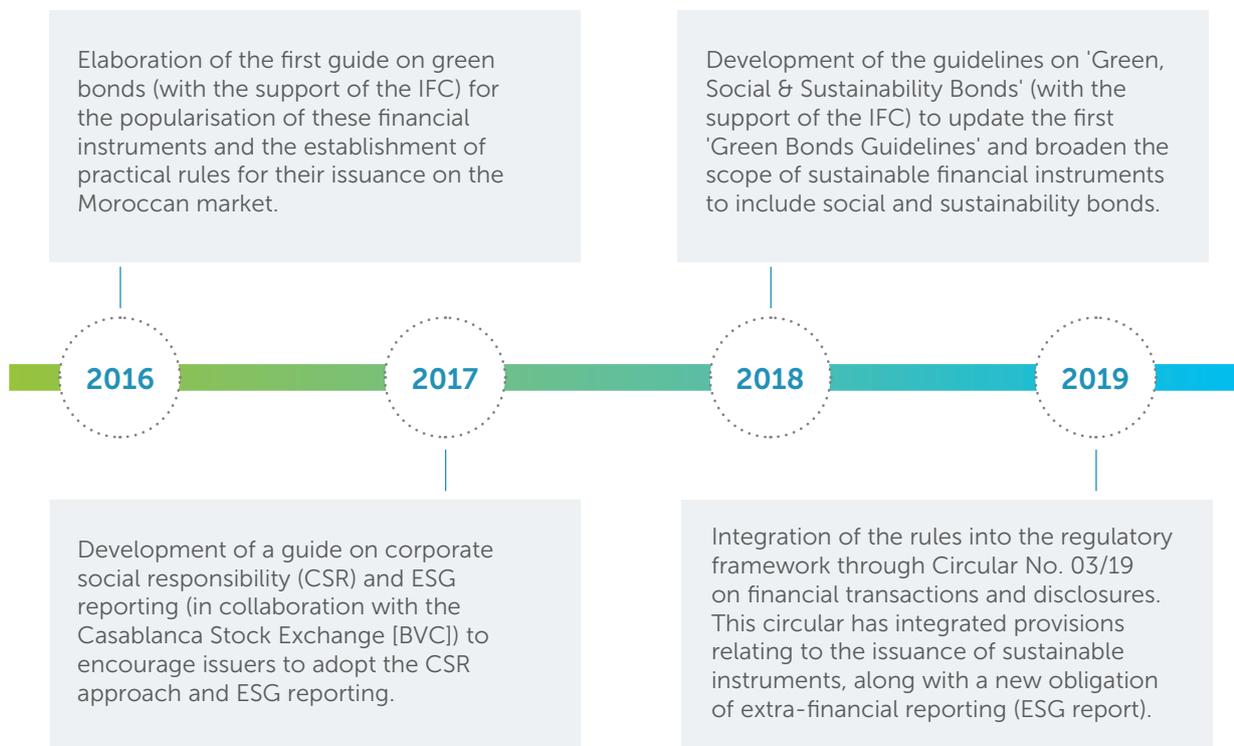
The AMMC has put in place provisions to facilitate the access SMEs have to capital markets, focusing on creating an alternative market for SMEs and green bonds.

Alternative market for SMEs: the equity market where shares of SMEs are traded across three sub-funds: 'Alternative A', 'Alternative B' and 'Alternative C' (reserved for qualified investors). This alternative market is governed by streamlined conditions.

Green bonds: the implementation of the Moroccan regulatory framework for green bond issuance started in 2016 and has since followed the best international standards, leading to the development of the AMMC's guidelines on 'Green, Social & Sustainability Bonds' in 2018 and the accompanying guidance for corporate environmental, social and governance (ESG) reporting (see Figure 17).

⁴¹ AFI. (2019, October). Bank Al-Maghrib co-hosts first-ever IGF member training in Rabat. <https://www.afi-global.org/newsroom/news/bank-al-maghrib-co-hosts-first-ever-igf-member-training-in-rabat/>

Figure 17: Regulatory framework for green bonds in Morocco



(Source: the authors based on AMMC, 2022)

Building on the previously published guidelines for 'Green, Social & Sustainability Bonds', the AMMC 'Gender Bonds guidelines' were also developed thanks to the support of the wider partnership between FSD Africa and AMMC. Before this, both green and gender bonds were already issued in Morocco.

Issuers who have taken the step of green bond issuance include Masen, AWB, Banque Populaire (BP), BOA, Al Omrane and Casablanca Finance City. Their total issuance of green bonds was over MAD 4 billion, including 1.5 billion denominated in EUR. Recently, in July 2022, the EBRD announced an investment of MAD 200 million (equivalent to EUR 19.2 million) in an issuance of certified green bonds worth 1 billion MAD (equivalent to EUR 95 million) to the Moroccan National Railways Office, Morocco's national railway operator, to refinance debt used to build an electrified high-speed rail line in the country. This green bond will be aligned with the low-carbon land transport criteria of the Climate Bonds Standard, as verified by an independent party, and certified by the Climate Bonds Standard Board. It will also benefit from a guarantee from TAMWILCOM.

Box 8: International activities of the Moroccan Capital Market Authority

To better align its activities in Morocco with international best practice, the AMMC participates in international working groups dedicated to green finance. It is a member and co-chair of the Sustainable Banking Network and a member of the International Organization of Securities Commissions (IOSCO) Sustainable Finance Working Group. AMMC has provided assistance to regulators in other countries (e.g. Nigeria and Congo), supporting them with setting up green and sustainable finance frameworks.

(Source: the authors, 2022)

Undertakings for Collective Investment in Transferable Securities: Organismes de Placement Collectif en Capital [Undertakings for Collective Investment in Capital] (OPCCs) are investment funds with the objective of financing SMEs. In Morocco, they are governed by Law No. 41-05, promulgated by decree on 14 February 2006, as amended and completed by Law No. 18-14, promulgated by decree on 19 February 2015. Law No. 41-05 sets out the legal regime applicable to venture capital activity when it is carried out by venture capital investment bodies that wish to opt for said legal regime and whose management must be provided by a management company.

A comparison of the characteristics of a public limited company (PLC) and OPCC is presented in Table 8, showing the regulatory advantages of the SME-focused OPCC status, introduced to encourage more funds to opt for this status, as compared to a more traditional fund.

Table 8: Comparison of public limited companies and Undertakings for Collective Investment in Capital

	PLC	OPCC
Investments	All assets	A restrictive statute that requires at least 50% of securities, representing funds and quasi-equity of unlisted and regulated companies under the "minimum allocation" of Moroccan law. Prudential rules on investment diversification to be respected.
Investors	No restrictions	Restrictions for certain natural persons
Management company	No management company	Mandatory
Approval	No approval	Approval of the management company by the MEF and of the OPCC by the AMMC.
Control	Usual control, i.e. CAC International audits, shareholders, supervisory committee (if any) and directors. No supervisory authority and no mandatory reporting.	Common/AMMC control (additional guarantee for investors).
Debt capacity	No limitation	Limiting borrowing capacity
Taxation	Common law regime	Tax transparency

(Source: the authors, 2022)

Of the 28 management companies operating in Morocco, 13 have been approved by the MEF following the advice of the AMMC. Furthermore, of a total of 60 private equity funds, eight have been approved as OPCCs by the AMMC.

To further encourage private equity operators to adopt OPCC status for their funds, the AMMC and MEF are currently working on new amendments to Law No. 18-14. These amendments relate in particular to the facilitation of approval procedures (i.e. the approval of management companies by the AMMC instead of the MEF) and the delineation of a new category of investors with the financial, human and technical means to be authorised to subscribe to OPCCs. Supporting investment funds and equity operators with adopting the OPCC title can help open new sources of financing for SMEs.

Regulatory framework for ESCO

Supporting the decarbonisation of the Moroccan economy and its SMEs also relies on the availability of necessary technical skills and high-quality energy services in the country, each of which has seen rapid development in recent years. Decree No. 2-18-165, adopted at the end of 2019 within the framework of Law No. 47-09 on EE, sets out the specifications for ESCOs and governs their creation, organisation and operation. This decree provides for three types of energy performance contracts (EPCs):

- **A shared savings EPC:** an EPC wherein the ESCO provides the financing for the design, implementation and measurement of the project. The ESCO is paid for its services and for the work carried out on the basis of a fraction of the annual energy savings demonstrated for each year of the contract.
- **An EPC with guaranteed savings:** an EPC wherein the customer provides the financing for an EE project at their facility. The ESCO is paid for its services and for its work as the project is completed, just as in a traditional construction contract. Once the work is completed, the ESCO must guarantee the energy savings to the client and, if applicable, reimburse any shortfall in annual energy savings (demonstrated through a measurement and verification process) for the duration of the contract.
- **A guaranteed discounted EPC:** an EPC wherein an ESCO takes over an energy facility's infrastructure and carries out an investment-grade technical and economic study and project to improve the EE of the site. The ESCO offers an energy service to a client with a guaranteed saving compared to its operating cost before the project starts.

The SIE became a public ESCO in October 2018 and is now in charge of implementing various EE projects in the building, public lighting, mobility and industrial sectors. It is empowered to act as a financial 'Super ESCO' and to support local SMEs and ESCOs, thus contributing to strengthening the national ecosystem in tandem with other actors in the sector.

However, despite the recent development of the regulatory framework around ESCOs, the created incentives remain insufficient. Adoption of the decree on ESCOs notwithstanding, the ESCO accreditation process needs to be improved and streamlined in order to accelerate the implementation of EE projects, while companies with RE projects still face unfavourable regulations in terms of support for the self-generation of electricity. Furthermore, energy audits and the implementation of EE measures are not mandated, undermining interest companies may have in utilising ESCO services.

6.1.2 Tax and incentive framework

Other than the provisions set out in the SMEs Charter and the fiscal measures listed in the Finance Law covering all economic sectors according to the conditions and limits specified by the General Tax Code, there is currently no favourable regime dedicated to SME financing in Morocco. At the same time, the first measures introduced as part of the financing of Morocco's ecological transition and sustainable development indirectly benefit SMEs and other categories of companies. This tax system, while still under construction, is increasingly introducing mechanisms supporting green taxation and Framework Law No. 99-12 on the 'National Charter for the Environment and Sustainable Development' as the first law integrating environmental protection into the tax regime. While this already represents greening dynamics in the Moroccan tax system, a comprehensive tax reform, including the integration of environmental governance, accounting and carbon pricing, is not yet under consideration.

Tax measures

General tax provisions applicable to SMEs: the SMEs Charter includes articles which specifically target SMEs. These articles provide tax reduction provisions which, while reducing the tax burden on Moroccan SMEs, currently do not contain provisions associated with decarbonisation or other green priorities. These provisions are shown in Table 9.

Table 9: Tax provisions of the SMEs Charter

SMEs Charter Article	Tax measures
Article 51	Deduction from the taxable base for general income tax equal to or less than the amount of their subscription, granted to natural persons who have subscribed in cash to the capital of an SME which is in liquidation within five years of its incorporation or recovery.
Article 52	Reduction of the general income tax granted to natural persons who subscribe in cash to the initial capital or to capital increases of an SME, in addition to those who subscribe in cash to the initial capital or to capital increases of a capital investment company, a regional SME financing company or to shares of a collective capital investment fund.
Article 53	Deductibility of charges corresponding to the value of donations in money or grants-in-kind by natural or legal persons to associations recognised as being of public utility and dedicated to the support of SMEs, as provided for in Article 20 of the SMEs Charter.
Article 54	VAT exemption for equipment, tools and capital goods imported or acquired locally, either directly or through a leasing company, by an economic interest grouping made up exclusively of SMEs.
Article 55	Tax regime dedicated to financing by Central Counterparties, i.e. Mutual Venture Investment Funds and Venture Capital Corporations, as detailed in paragraph 1.1.3.

(Source: the authors based on SMEs Charter, 2002)

Main measures of the Finance Law 2022 regarding SME financing and green taxation: the Code Général des Impôts [General Tax Code] (CGI) for the year 2022, accepted under the framework of the Finance Law 2022, included a number of new measures, many of which were focused on supporting the sustainable and low-carbon development of Moroccan SMEs. The main greening and innovation-focused tax measures are listed below:

1	Revision of the amount of participation entitling a reduction in corporate income tax for the benefit of companies that take stakes in the capital of new innovative companies in new technologies (start-ups). The cap was increased from MAD 200,00 to MAD 500,000.
2	Reduction of the threshold of the amount of investment projects from MAD 100 million to MAD 50 million, benefiting from the exemption of VAT with the right to deduct. ⁴² The domestic and import exemption concerns existing companies that carry out investment projects involving an amount equal to or greater than MAD 50 million within the framework of an agreement concluded with the state. This exemption also concerns the customs duties applicable to the import of capital goods, materials and tools on behalf of the companies concerned, necessary for the realisation of the investment programme.
3	Restoration of VAT neutrality for sales transactions involving photovoltaic (PV) panels and solar water heaters. ⁴³ This includes application of the single 10% rate to domestic and imported PV panels and solar water heaters and exemption with right of deduction for products and materials used in manufacturing PV panels. The exempt products and materials can be acquired locally or imported by manufacturers and include PV cells, solar glass, panel frames, hooks and panel support structures, corners of plastic panels and others.

⁴² Articles 92-I-6° and 123-22°-b) of the CGI and Article 164-1°-p) of the Customs and Indirect Taxation Code (CDII).

⁴³ Articles 92-I-54°, 99-2°, 123-59° and 124 -I of the CGI.

4	Exemption from VAT without the right to deduct for recovery materials and water pumps that run on RE used in the agricultural sector. ⁴⁴
5	Ereduced VAT rate with the right to deduct on sales of electrical energy. ⁴⁵
6	Tax exemption for vehicles with electric and hybrid engines. ⁴⁶
7	Tax liability for certain electrical goods and equipment and vehicle batteries. The products concerned are electrically powered articles, appliances and equipment, electronic devices and vehicle batteries. ⁴⁷

Framework Law No. 69-19 on tax reform:⁴⁸ following the recommendations of the National Tax Conference held in 2019, Framework Law No. 69-19 was established on 26 July 2021, outlining the provisions of the tax reform. This reform, which is a structuring lever for the financing of the national economy, will be implemented gradually over five years in accordance with national priorities. Some of the tax measures enacted by this law would help accelerate sustainable development in Morocco, particularly the following:

- environmental protection, in particular through the introduction of a carbon tax;
- promotion of the social economy; and
- providing incentives for the development of innovative enterprises, including start-ups, support structures (e.g. incubators and accelerators) and aggregators of self-employed entrepreneurs.

This tax reform, together with the newly introduced CGI measures, demonstrates a continual shift of the Moroccan tax framework towards supporting green businesses.

Taxation of OPCCs: crucial to financing SME development, OPCCs are subject to special tax provisions on transactions. While transaction tax on most of their transaction types is 0% compared to other investment vehicles, OPCCs additionally benefit from 0% tax on capital gains from the sale of securities (see Table 10).

⁴⁴ Article 91-I-C-5 and 6° of the CGI.

⁴⁵ Article 99-III-a° of the CGI.

⁴⁶ Article 252-I-c° of the CGI.

⁴⁷ Article 182-1° of the CDII.

⁴⁸ Decree No. 1-21-86 of 26 July 2021.

Table 10: Transaction tax treatment comparison between the Undertakings for Collective Investment in Capital and other funds

Taxable transactions	Classic regime ⁴⁹	OPCC tax regime
Registration fees on share acquisitions	0% ^{*50}	0%*
Current account contributions	0%*	0%*
Dividends received or recorded in current account	0%** ⁵¹	0%**
Capital gains on sales of securities	Scale rate (%) ^{***}	0%****

*Articles 129-IV-11° / 23° and 25° of the CGI, **Article 6-I-C-1° of the CGI, ***Article 19 of the CGI. ****Article 6-I-A-18° of the CGI.

(Source: the authors based on SMEs Charter, 2002)

Other incentives

TAMWILCOM guarantee and co-financing scheme: TAMWILCOM plays a crucial role in the Moroccan financing landscape. In 2021, its total granted commitments in favour of both companies and individuals reached MAD 24.9 billion, allowing mobilisation of a credit volume of MAD 43.7 billion.⁵² Its support is specifically important to SMEs as the granted co-financing reduces the risk for banks, thereby encouraging them to grant credits to SMEs. TAMWILCOM's SME-targeted programmes include credit guarantees, co-financing with banks and equity financing through investment funds and venture capital guarantees.

In terms of green finance, TAMWILCOM has set up a co-financing offer for green projects called 'Green Invest', to be implemented jointly with local banks. TAMWILCOM has also signed an agreement with the EBRD to optimise synergies between their respective offers, products and expertise in green finance. These joint actions will be carried out in the field of energy transition and financial inclusion.

Maroc PME programme: Maroc PME is an instrument of the public authorities for promoting the development of SMEs. It includes two flagship programmes aimed at assisting SMEs in the process of modernisation and improving their competitiveness. These are:

- **The IMTIAZ programme:** offers investment premiums to SMEs with a development project that promotes growth and the creation of added value and jobs; and
- **The Moussanada programme:** aims to support 700 companies per year in their efforts to modernise and improve their productivity by covering 60%–80% of service costs.

More than 2,530 projects were supported by Maroc PME programmes in 2021, compared to 819 projects in 2020, while the number of direct and indirect jobs created by approved investment projects in 2021 reached 29,249. In 2021, Maroc PME launched its 'Tatwir Croissance Verte' [Green Growth] programme to support start-ups and green SMEs with an integrated offer for different types of decarbonation projects (e.g. investment premium, reimbursable aid and technical assistance).⁵³

Memorandum of understanding between the AMMC, the BVC, Maroclear⁵⁴ and the Professional Association of Stock Exchange Companies to facilitate SMEs' access to the capital market: the memorandum of understanding,

⁴⁹ Subject to the regimes applicable to particular sectors/vehicles.

⁵⁰ Excluding real estate companies and companies with a preponderance of real estate assets.

⁵¹ On the condition that the beneficiary company provides the distributing company or delegated banking institution with a certificate of ownership of the shares, together with its corporate income tax identification number.

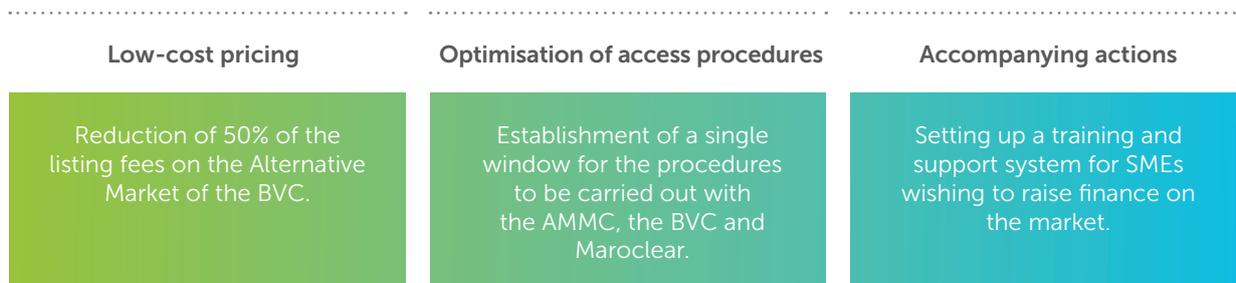
⁵² This excludes specific products set up during the COVID-19 crisis.

⁵³ See more details in Section 5.2.

⁵⁴ Maroclear has been the central securities depository in Morocco since 1997, pursuant to Law No. 35-96 of 9 January 1997.

signed in December 2021, marked the launch of an integrated offer, called the 'SME Offer', to facilitate access to capital market financing for SMEs and support those companies which wish to be listed on the new Alternative Market of the BVC. The offer is based on the following three components:

Figure 18: Components of the integrated SMEs offer for the stock market



(Source: the authors, 2022)

This initiative, together with all other incentive programmes and tax provisions discussed earlier, demonstrates a growing focus in the Moroccan regulatory and financial landscape towards supporting SMEs and, in particular, their sustainable activities and business approaches.

6.2 Mapping available green finance for SMEs

During the last few years, several financing offers dedicated to green projects have emerged in Morocco. They have been initiated by both public business support organisations, such as Maroc PME and TAMWILCOM, and DFIs in partnership with local commercial banks. This section presents the different green finance products and financing sources currently on offer, along with their main characteristics. These finance sources will be split into three groups based on the type of financing instrument, as shown in Figure 19.

Figure 19: Mapping of current green finance offers for SMEs



(Source: the authors, 2022)

6.2.1 Grant funding

As part of its Industrial Recovery Plan 2021–2023, Maroc PME, in partnership with the AMEE, set up its first product for green projects in 2021. The main characteristics of this offer, known as the 'Tatwir Green Growth' programme, are presented below.

Table 11: Maroc PME offer: Tatwir Green Growth

Maroc PME		
Tatwir Green Growth		
Global investment promised in the first phase: MAD 1 billion		
Eligibility criteria	Target projects	Financing arrangements
Turnover <MAD 200 million Industrial sector Sustainable project	<ul style="list-style-type: none"> Improving EE and integrating RE Optimisation of manufacturing processes and material flows Innovation and development of eco-designed products Initiation of green industrial sectors 	Bonus of 30% to the investment programme including tax, with a ceiling of MAD 5 million (including tax) for SMEs and MAD 1.5 million (including tax) for VSEs.
	<ul style="list-style-type: none"> Initiation of green industrial sectors 	Reimbursable aid: 5% of the investment programme (including tax) for SMEs and 10% for VSEs for the financing of working capital.
	<ul style="list-style-type: none"> Improving EE and integrating RE Optimisation of manufacturing processes and material flows Innovation and development of eco-designed products 	Advice and technical expertise: financial support of up to MAD 1 million (including tax) for VSEs and SMEs.
	<ul style="list-style-type: none"> Innovation and development of eco-designed products 	Support for innovation/eco-design: support for up to 50% of the expenses incurred in terms of innovation and product development, with a ceiling of MAD 3 million (including tax) for SMEs and MAD 2 million (including tax) for VSEs.

(Source: the authors, based on data from Maroc PME, 2022)

As the main instrument for implementing government policy in the agricultural sector, the Fond de Développement Agricole [Agricultural Development Fund] (FDA) offers a range of subsidies, including those granted to SMEs for the purpose for environmental protection. In particular, Table 12 demonstrates the type of support which SMEs in the agricultural sector can apply for in order to increase resource saving, control soil erosion and support valorisation of agricultural by-products.

Table 12: Agricultural Development Fund offer

FDA		
Grants for resource protection in agriculture		
Overall financing: N/A		
Eligible companies	Target projects	Financing arrangements
Farmers of all sizes and structures aiming at resource saving, soil erosion control and valorisation of agricultural by-products.	Hydro-agricultural developments and rainwater harvesting	<ul style="list-style-type: none"> Localised irrigation (individual projects): 80% (capped at MAD 36,000/ha) equipped and MAD 16,000/ha equipped in the case of water storage basins. Localised irrigation (collective projects, small farmers or aggregation projects): 100% capped at MAD 45,000/ha equipped and MAD 20,000/ha additional equipped in the case of water storage basins. Deep loosening: 30% with a maximum of MAD 7,000/ha. Rainwater collection: 50% with a ceiling of MAD 2,500/ha.
	Fruit growing (soil erosion control and carbon sequestration)	<ul style="list-style-type: none"> Date palms: 100% of the purchase price of the plants. Extension of the palm grove: 70% of the price of the seedlings, with a ceiling of MAD 35,000/ha. Olive groves: from MAD 500–MAD 4,000/ha. Rosaceous fruit trees: 60% of the purchase price of the plants, with a ceiling of MAD 3,500–MAD 17,000 depending on the minimum density and type. Argan trees: 80% of the purchase price of the plants, with a ceiling of MAD 6,000 and MAD 9,000 in irrigated. Other fruit species: 60% of the purchase price of the plants, with a ceiling of MAD 3,500–MAD 10,000 depending on the minimum density and type.
	Agricultural equipment	<ul style="list-style-type: none"> Direct seeders: 50% capped at MAD 50,000–MAD 100,000 depending on the working width.
	Valorisation of agricultural by-products	<ul style="list-style-type: none"> Olive pomace processing and valorisation units: 10% capped at MAD 50,000–MAD 100,000 depending on the width of the work. Poultry manure drying units: capped at MAD 600,000. New recovery unit: assumption of responsibility for investments related to environmental impact reduction equipment.

(Source: the authors, based on data from the FDA, 2022)

While grants play an important role in boosting the development of SMEs, there are certain procedural difficulties which hinder their effectiveness in supporting smaller companies. The complexity of the application requirements and the length of the application consideration procedure make the process complicated for SMEs. Moreover, grant funding is often released following the implementation of the project, which creates problems with cash flow. The grant volume is also often calculated based on the eligible credit and not the cost of the investment. All these elements constraining the grants' potential for supporting smaller companies would need to be considered for the optimisation of the SME financing landscape.

6.2.2 Debt financing and leasing

In 2019, TAMWILCOM set up the 'Green Invest co-financing product for green economy investments with commercial banks. Under this programme, TAMWILCOM's share amounts to EUR 45 million over 3–5 years. Other funds may be mobilised as needed.

Table 13: TAMWILCOM offer: Green Invest

TAMWILCOM		
Green Invest		
Overall financing: EUR 45 million		
Local banks: all banks		
Eligibility criteria	Target projects	Financing arrangements
<ul style="list-style-type: none"> VSEs, SMEs and LEs. Viable and solvent. Sectors: agriculture, industry, service sector, green technology providers and ESCOs. 	<ul style="list-style-type: none"> EE. RE. Pollution control. Waste management. The manufacture of green equipment. 	<ul style="list-style-type: none"> Long-term credit in co-financing. TAMWILCOM share: max 40%, capped at MAD 10 million. Term: 12 years max; deferred four years in principal. Self-financing/own funds: min 20%.* Bank share: various, as long as this share is not less than TAMWILCOM's. Rate freely negotiable.
		<ul style="list-style-type: none"> Technical assistance (planned)**

* Grants, subsidies and investment grants from other donors can be considered as equity, ** Technical expertise is currently funded by the client or provided by other stakeholders through green programmes, e.g. the GEFF, the GVC, the Ligne Bleue and/or Maroc PME.

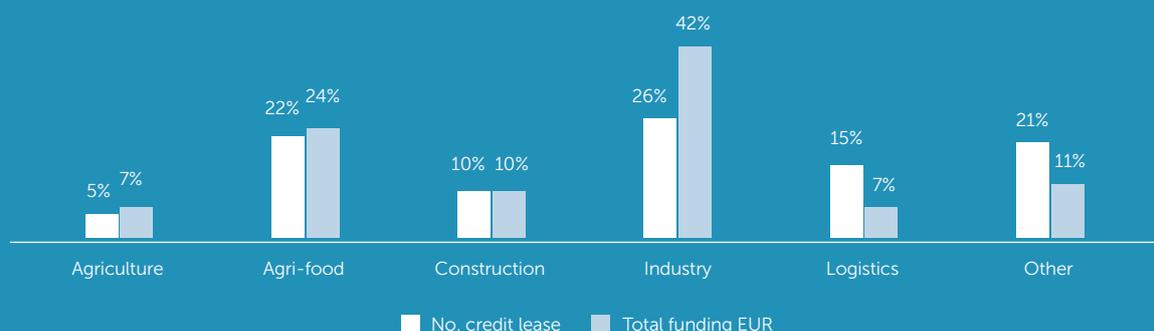
(Source: the authors, based on TAMWILCOM data, 2022)

Partnerships with DFIs have made it possible to set up lines of credit for green business projects focusing on SMEs. The first green-labelled line, the Morocco Sustainable Energy Financing Facility (MorSEFF), was launched in 2015 with global financing of EUR 110 million. It was developed by the EBRD in cooperation with the European Investment Bank (EIB), the AFD and the KfW, with local distribution by the BMCE, BP, Maghrebail and Maroc Leasing. Aimed mainly at EE and RE projects, the MorSEFF offered loans or leases of up to 100% of the investment cost with a subsidy of 10–15% of the investment, in addition to free technical assistance. More than 900 companies, mostly SMEs, have been financed through this programme. This line was closed after its financing was deployed. The achievements of the MorSEFF programme are presented in Box 9.

Box 9: Overview of the achievements of the Morocco Sustainable Energy Financing Facility

Over its lifetime, MorSEFF distributed investments totalling EUR 110 million to more than 900 companies with sustainable energy projects, with more than 50% of those companies being SMEs. Almost 40% of these projects were financed by leasing. MorSEFF financed companies operating in different sectors, with the industry and agribusiness sectors receiving 42% and 24% of the financing granted (in value), respectively.

Figure 20: Breakdown of the Morocco Sustainable Energy Financing Facility portfolio by sector

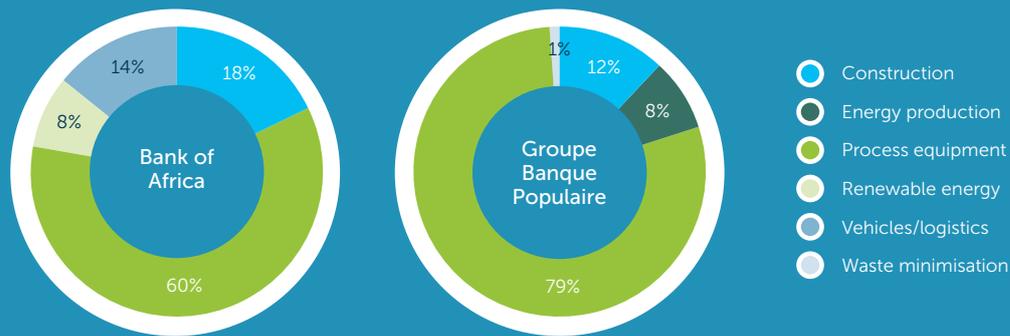


(Source: MorSEFF team and the EBRD)

Box 9: Overview of the achievements of the Morocco Sustainable Energy Financing Facility

MorSEFF investments were mainly directed towards a variety of RE (e.g. PV in particular) and EE programmes (e.g. modernisation, renovation and capacity extension projects).

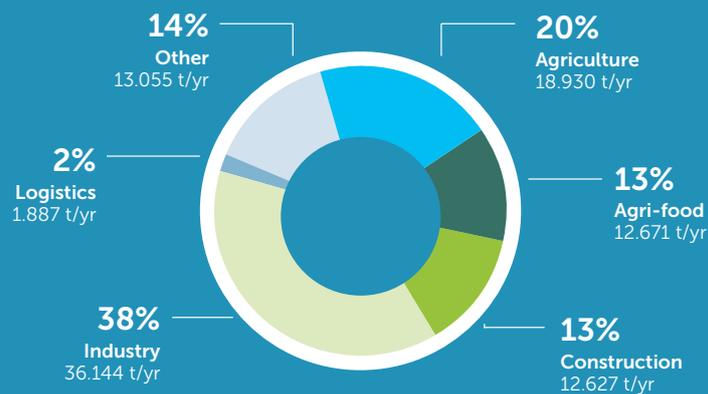
Figure 21: Breakdown of the Morocco Sustainable Energy Financing Facility portfolio by project type



(Source: MorSEFF team and the EBRD)

MorSEFF, while having a measurable impact in terms of energy savings and reduction of GHG emissions (see Figure 22), also made an effective return on investment, improving the competitiveness of the beneficiary companies in turn by lowering their production costs, improving their CSR image and allowing them to penetrate new markets, particularly internationally.

Figure 22: Reduction of carbon dioxide emissions from the Morocco Sustainable Energy Financing Facility portfolio



(Source: MorSEFF team and the EBRD, Year)

Overall, MorSEFF's performance exceeded initial expectations, making it the benchmark programme for green finance in Morocco and paving the way for programmes which have subsequently been developed.

(Source: the authors, 2022)

Driven by the success of the MorSEFF programme, further green credit lines have been created by the EBRD and other development banks operating in Morocco. These are presented below.

Table 14: European Bank for Reconstruction and Development offer: Green Economy Financing Facility

EBRD		
Green Economy Financing Facility (GEFF)		
Overall financing: EUR 163 million		
Local banks: BOA, Crédit Immobilier et Hôtelier (CIH Bank), Crédit du Maroc, Société Générale, BP and the Morocco Bank of Commerce and Industry		
Eligibility criteria	Target projects	Financing arrangements
<ul style="list-style-type: none"> VSEs, SMEs and LEs. Viable and solvent. At least 75% of the capital is held by private investors. Activities in line with national social, environmental, health, safety and labour standards. Sectors: industry, tertiary, agriculture, ESCOs and producers of eligible equipment. 	<ul style="list-style-type: none"> EE. RE. Sustainable buildings. Water saving. Resource efficiency. Sustainable land management. 	<ul style="list-style-type: none"> Long-term loan or leasing. Subject: capital expenditure (CAPEX). Quota: up to 100%. Amount: max EUR 5 million per project and borrower. Rate/maturity: depends on the partner bank.
		<ul style="list-style-type: none"> Subsidy: 10% of eligible credit before tax. 15% for co-generation or tri-generation projects. Terms of repayment: after verification of equipment installation or completion of the project.
		<ul style="list-style-type: none"> Technical support: free of charge

(Source: the authors, based on EBRD offer data and the GEFF, 2022)

Table 15: European Bank for Reconstruction and Development offer: Green Value Chain

EBRD		
Green Value Chain (GVC)		
Overall financing: EUR 90 million		
Local banks: BOA, Crédit du Maroc, Société Générale and BP		
Eligibility criteria	Target projects	Financing arrangements
<ul style="list-style-type: none"> SMEs, according to the EU definition.⁵⁵ Viable and solvent. At least 75% of the capital is held by private investors. Activities in line with national social, environmental, health, safety and labour standards. SMEs belonging to a value chain, i.e. having at least one local supplier and/or one national or international customer operating in the following sectors: agriculture, industry, water, sanitation, waste, logistics, telecoms and information technology. 	<ul style="list-style-type: none"> EE. RE. Water saving. Resource efficiency. 	<ul style="list-style-type: none"> Long-term loan or leasing. Subject: CAPEX. Quota: up to 100%. Amount: max EUR 0.3 million for pre-approved equipment and EUR 1 million for integrated projects requiring evaluation. Max EUR 5 million per borrower. Rate/maturity: depends on the partner bank.
		<ul style="list-style-type: none"> Subsidy: 10% of the eligible credit before tax. 15% for co-generation or tri-generation projects. Terms of repayment: after verification of equipment installation or completion of the project.
		<ul style="list-style-type: none"> Technical support: free of charge

(Source: the authors, based on data from the BOA/AFD/EIB and Cap Bleu, 2022)

⁵⁵ The EU definition of an SME is a business with less than 250 employees and a turnover of <EUR 50 million or balance sheet total of <EUR 43 million. The analysis of the size of the company also covers the Group, where applicable.

Table 16: Bank of Africa/French Development Agency/European Investment Bank offer: Cap Bleu

BOA/AFD/EIB		
Cap Bleu		
Overall financing: EUR 20 million		
Eligibility criteria	Target projects	Financing arrangements
<ul style="list-style-type: none"> VSEs, SMEs and LEs. Viable and solvent. Sectors: agriculture, hospitality, real estate, industry and sanitation. 	<ul style="list-style-type: none"> Pre-treatment and treatment of wastewater. Reuse of treated wastewater. Saving water in the manufacturing process. Reduction of drinking water leaks. Sanitation works and equipment. Desalination. 	<ul style="list-style-type: none"> Long-term loan. Maturity: up to 10 years. Bonus rate: the difference in interest between the rate applied (based on the usual pricing) and the rate with a bonus of 90 basis points in the form of annual cash back.
		<ul style="list-style-type: none"> Technical support: free of charge

(Source: the authors, based on data from the BOA/AFD/EIB and Cap Bleu, 2022)

Table 17: Crédit Agricole du Maroc/French Development Agency offer: ISTIDAMA

CAM/AFD		
ISTIDAMA		
Overall financing: EUR 10 million		
Eligibility criteria	Target projects	Financing arrangements
<ul style="list-style-type: none"> Individuals, VSEs and SMEs. Agriculture, agro-industry and waste treatment and recovery. 	<ul style="list-style-type: none"> EE. RE. Waste management. Organic farming. 	<ul style="list-style-type: none"> Long-term loan. Subject: CAPEX. Low rates. Maturity: 12 years with a two-year grace period.
		<ul style="list-style-type: none"> Subsidy: 10% of the loan.
		<ul style="list-style-type: none"> Technical support: free of charge

(Source: the authors, based on data from the CAM/AFD and ISTIDAMA, 2022)

Table 18: Crédit Agricole du Maroc offer: SAQUII

CAM		
SAQUII, SAQUII Solaire and SAQUII Optimised		
Overall financing: N/A		
Eligibility criteria	Target projects	Financing arrangements
<ul style="list-style-type: none"> Individuals, VSEs, SMEs, LEs and Groups. Sector: agriculture. 	Optimisation of water resources (SAQUII).	<ul style="list-style-type: none"> Long-term loan. Quota: up to 100% of the investment. Term: up to 10 years, with four years deferred. Flexible repayments. Offers of pre-financing state financial aid or advances on AFD grants.
	Solar energy (SAQUII Solaire).	<ul style="list-style-type: none"> Long-term loan. Quota: up to 85% of the investment. Term: up to 10 years, with one year deferred. Flexible repayments. Co-financing from TAMWILCOM Green Invest plus guarantees (e.g. Damane Express/Damane Istitmar).
	Optimisation of the use of water resources in localised irrigation (SAQUII Optimised).	<ul style="list-style-type: none"> Long-term loan. Quota: up to 85% of the investment. Duration: up to 10 years, with two years deferred. Flexible repayments. Co-financing from TAMWILCOM Green Invest plus guarantees (e.g. Damane Express/Damane Istitmar).

(Source: the authors, based on data from the CAM, 2022)

Table 19: Attijariwafa Bank offer: Green Plan

AWB		
Green Plan		
Overall financing : N/A		
Eligibility criteria	Target projects	Financing arrangements
<ul style="list-style-type: none"> VSEs, SMEs and LEs. All sectors. 	<ul style="list-style-type: none"> EE. RE. Waste management. Pollution control. 	<ul style="list-style-type: none"> Long-term loan. Subject: CAPEX. Term: up to 12 years, with a maximum three-year principal deferral. Quota: up to 80% for project extension or modernisation or 70% for a new project. Fixed or variable rate, with the possibility of switching from one to the other once during the term of the loan. 50% discount on the application fee for industrial companies.
		<ul style="list-style-type: none"> Leasing. Duration: up to five years (movable) and 10 years (real estate). Up to 100% of the investment. Deductibility of rents from the taxable base and the possibility of recovering VAT on the rent amount. Call option on expiry. Exemption from application fees for industrial companies.

(Source: the authors, based on data from the AWB Green Plan, 2022)

Table 20: Banque Populaire offer: BP Green Invest

BP		
BP Green Invest		
Overall financing: N/A		
Eligibility criteria	Target projects	Financing arrangements
<ul style="list-style-type: none"> VSEs, SMEs and intermediate-sized enterprises (ISEs) (i.e. <MAD 500 million). All sectors (excluding property development). 	<ul style="list-style-type: none"> EE. RE. Waste management. Resource conservation. 	<ul style="list-style-type: none"> Long-term loan. Subject: CAPEX. Quota: up to 90% for extension projects and 80% for new projects. Rate: fixed or variable rate, with the possibility of changing once during the term of the loan. Term: up to 12 years, with max four years deferred. Free application fee.
		<ul style="list-style-type: none"> Technical assistance: awareness raising and technical training through the Cluster Solaire (via the BCP-Cluster Solaire partnership); and evaluation of the eligibility of the applications by AMEE experts (via the BCP-AMEE partnership).

(Source: the authors, based on data from BP's offer and BP Green Invest, 2022)

Withing the debt financing instruments, the development of green bonds, launched in Morocco in 2016, is also important. More than MAD 4 billion in green bonds were issued through six operations: Masen, AWB, BP, BOA, Al Omrane and Casablanca Finance City. However, SMEs do not have the critical size to resort to this type of financing, which is currently only available to large operators. One way to get access to this instrument is to use an aggregation mechanism in order to structure a common issue for a pool of projects carried by SMEs. However, such initiatives have not been active as yet.

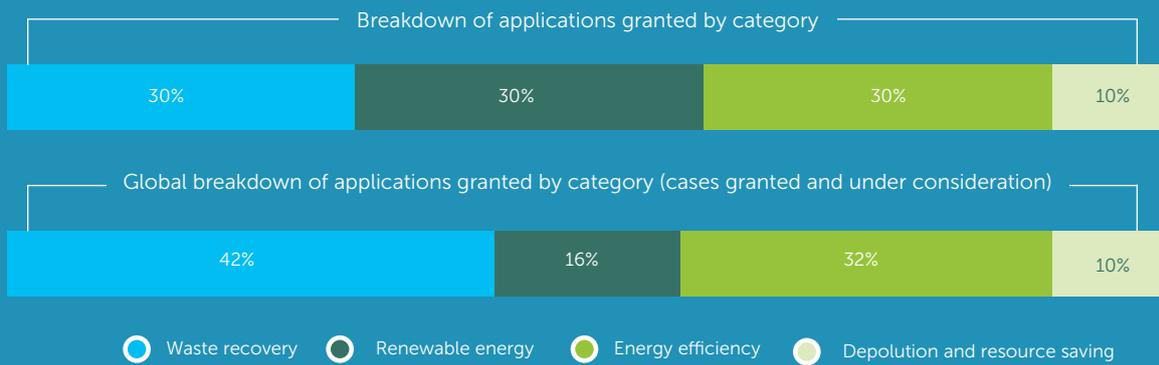
6.2.3 Equity financing

Currently, there are no equity or quasi-equity instruments dedicated exclusively to the green economy in Morocco. However, private equity funds set up under the Innov Invest Fund devote part of their investments to innovative greentech projects. This programme was set up by the Moroccan government and is managed by TAMWILCOM. It aims to promote entrepreneurship and the development of SMEs through a financing structure combining public and private financing. The programme's objective is to support these companies in their development, with a particular focus on those operating in innovative sectors essential to the economic diversification of Morocco.

Box 10: Green Invest achievements

Since its launch in 2019, TAMWILCOM's 'Green Invest' co-financing product has provided financing to 10 companies from a total investment of MAD 44.7 million. Information on nine of those companies, representing an overall investment of MAD 25.2 million, is presented below.

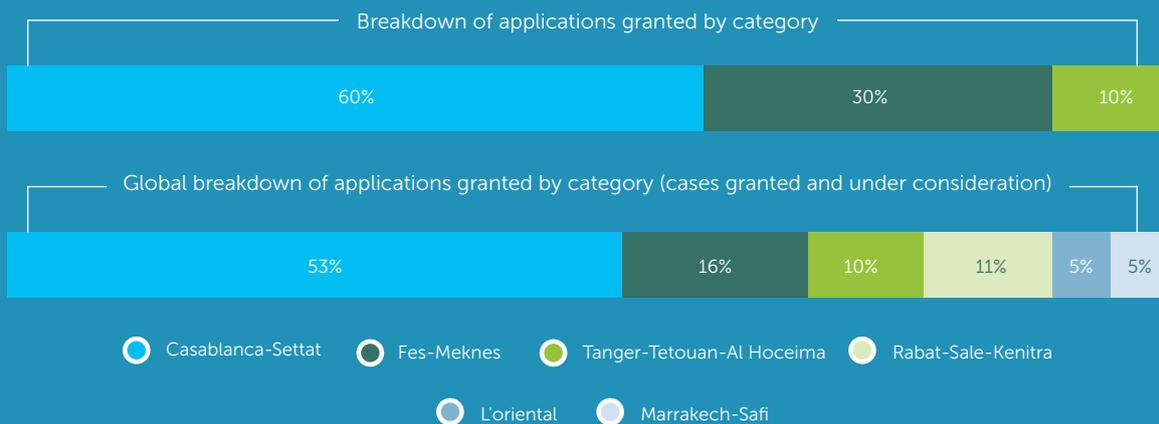
Figure 23: Breakdown of Green Invest financing by project type



(Source: TAMWILCOM)

During the first years of the programme, an equal distribution of financing was observed between EE, RE and waste recovery projects. However, taking into account the company sample available in 2022, the share of financing granted to waste recovery projects share has increased to 42%, while RE project funding has decreased to 10%.

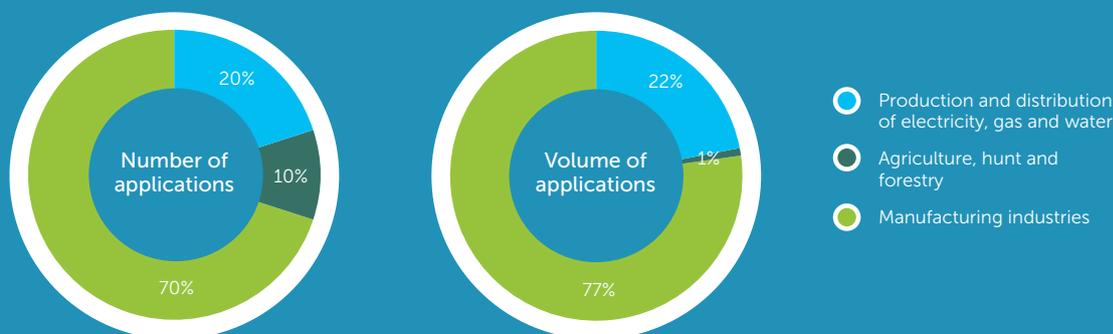
Figure 24: Geographical distribution of Green Invest financing



(Source: TAMWILCOM, 2022)

The Casablanca-Settat region accounts for 53% of the overall portfolio of Green Invest investments, down from 60% at the start of the programme. The diversity of the geographical regions in receipt of financing has also increased with time.

Figure 25: Breakdown of Green Invest financing by sector of activity



(Source: TAMWILCOM)

The financing provided by the fund favours the manufacturing sector, which received 77% of distributed financing.

(Source: the authors, 2022)

The funds which form part of the Innov Invest Fund include the Azur Innovation Fund, the Maroc Numeric Fund II (MNF II) and the Small Enterprises Assistance Funds (SEAF) Morocco Growth Fund (SMGF). Further information on these funds is presented below.

Table 21: Azur Innovation Fund offer

Azur Innovation Fund		
Donors: TAMWILCOM, BOA, AfDB, CIH Bank, Masen, Saham Assurance, KfW and the Dutch Good Growth Fund		
Overall financing: MAD 350 million (one-third in green projects)		
Eligibility criteria	Target projects (for the green pocket)	Financing arrangements
<ul style="list-style-type: none"> Start-ups and SMEs. Turnover <MAD 100 million. 	<ul style="list-style-type: none"> RE. Water and EE. Carbon emission reduction systems or carbon transformation. Circular economy. Cleantech. 	<p>Seed capital:</p> <ul style="list-style-type: none"> less than 18 months in business, proven innovative concept or product/service, prototype to support it and first successful market launch; and average investment: MAD 2.5 million/operation and MAD 6.8 million for the complementary investment. <p>Early-stage capital:</p> <ul style="list-style-type: none"> 18 months–3 years of activity, innovative product/service launched on the market and recording reorders, even if irregular sales; and average investment: MAD 4 million/operation and MAD 10.9 million for the complementary investment. <p>Venture capital:</p> <ul style="list-style-type: none"> 3–5 years of activity, innovative product/service in production and available on the market with significant growth and profitability prospects; earnings before interest, taxes, depreciation and amortisation is close to break-even; and average investment of MAD 7 million/operation and MAD 19 million for the complementary investment.

(Source: the authors, based on data from the Azur Innovation Fund, 2022)

Table 22: Maroc Numeric Fund II offer

MNF II		
Lenders: TAMWILCOM, BOA, AWB, BP, Moroccan Information Technopark Company		
Overall financing: MAD 128 million (20% in free tech and biotech)		
Eligibility criteria	Target projects (for the green pocket)	Financing arrangements
<ul style="list-style-type: none"> Start-ups. Exclusions: start-ups dedicated to e-commerce, distribution, import of products or services, training and technological consulting in competition with the fund's portfolio companies. 	Greentech	<p>Seed and early stage capital:</p> <ul style="list-style-type: none"> Less than three years of activity, in the development phase of its products or having already developed a product and requiring a financial contribution to develop sales; and Investment: MAD 1 million–MAD 4 million. <p>Venture capital:</p> <ul style="list-style-type: none"> Less than five years in business, with a track record of significant turnover growth and a need for financial support to accelerate growth; and Investment: between MAD 4 million–MAD 10 million.

(Source: the authors, based on data from MNF II, 2022)

Table 23: SEAF Morocco Growth Fund offer

SMGF		
Donors: TAMWILCOM, Moroccan Pension Fund, Asma Invest, United States Agency for International Development, BOA–BMCE and SEAF		
Envelope: MAD 235 million		
Eligibility criteria	Target projects (for the green pocket)	Financing arrangements
<ul style="list-style-type: none"> Start-ups and SMEs. Healthtech, edtech, fintech, greentech, agritech, new media and “as a service” technologies. 	Greentech	<p>Seed capital:</p> <ul style="list-style-type: none"> start-ups with a proven innovative concept or product/service with a successful first market launch; and investment ranging from MAD 2 million–MAD 5 million. <p>Early-stage/venture capital:</p> <ul style="list-style-type: none"> start-ups with a proven innovative concept or product/service with a successful first market launch; and investment ranging from MAD 8 million–MAD 20 million.

(Source: the authors, based on data from SMGF, 2022)

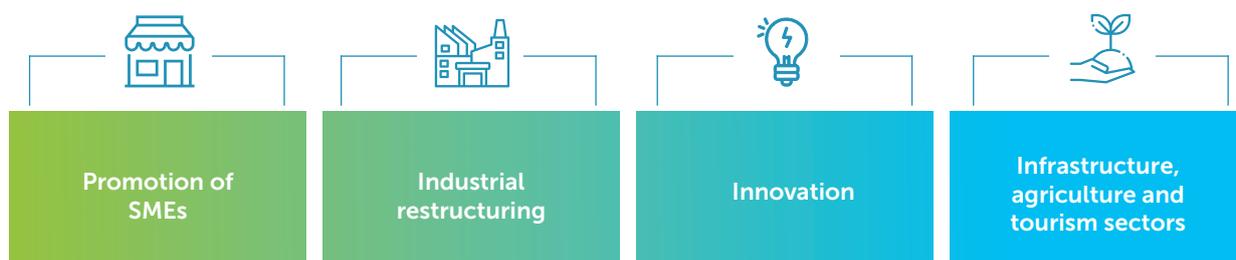
The interviews undertaken as part of this project have also demonstrated that fund managers, who need to raise the funds to set up equity instruments, face challenges in obtaining funding for green SME-focused funds. This is due to the fact that DFIs generally have preferences for providing resources to funds with a broader target (i.e. not limited to SMEs, Morocco, equity investments or green elements) due to their risk management policies. This, in turn, hinders the development of the equity finance offering for SMEs.

6.2.4 Other ongoing projects

In addition to the above-mentioned financing offers that are currently operational and accessible to companies, other initiatives which should reinforce the current offer are in development. One such initiative is the African Energy Efficiency Fund, set to be launched by Attijari Invest, an AWB Group subsidiary, in partnership with Suma Capital, a Spanish investment company. National and international investors will join the initial financing round

of MAD 200 million, with an objective of reaching at least MAD 500 million in the second round. This fund is developed according to the ESCO model, which enables the financing of investments on behalf of industrial or tertiary clients wishing to reduce their energy consumption within the framework of a highly diversified mix of technological solutions.

Another relevant fund is the Mohammed VI Fund for Investment, created in 2021 following the high royal guidelines and considered as a strategic lever for the sustainable and inclusive recovery of Morocco. Under the framework of this fund, sectoral and thematic investment funds will be generated with the objective of contributing to the financing of structuring projects and the strengthening of equity capital for SMEs. The priority areas of these funds include:



6.2.5 Summary of green financing for SMEs

The review of the green-focused finance offer for SMEs in Morocco demonstrates that there are multiple finance sources and financing instruments available on the market. Of the 13 main finance offers analysed in this study, 10 provide information on over USD 4.9 billion of available financing planned for distribution between 2019 and 2024.⁵⁶ This figure does not include the financing volume of three programmes (i.e. the CAM SAQUJI, AWB Green Plan and BP Green Invest offers) which did not disclose their overall available financing.

The available financing, split by instrument type and company eligibility, is shown in Figure 26. Unlike other categories of enterprise, SMEs are eligible to apply for access to all the reviewed financing sources.

Figure 26: Green finance offerings by instrument type and company size



(Source: the authors, 2022)

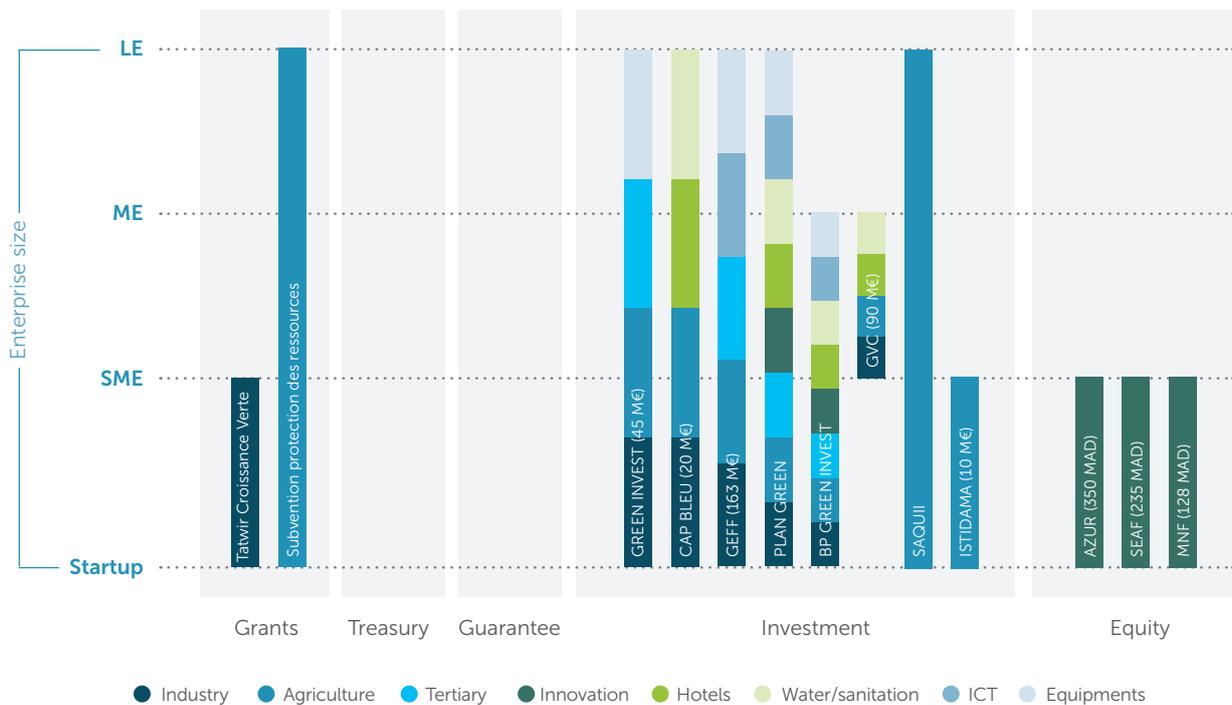
⁵⁶ Distribution timelines are programme-specific and vary among the considered programmes.

With regards to specific types of financing instruments, the following conclusions can be drawn:

- **Grant financing** is primarily available through the Maroc PME programme, which offers public funding and demonstrates the policy focus of the Moroccan government on greening SMEs in the post-pandemic period and beyond. Grants are also available in SMEs in the agricultural sector through the Agricultural Development Bank set up by the Moroccan government.
- **Debt financing** is driven by DFIs, supported in many cases by Moroccan public funding via TAMWILCOM, and is encouraged by the success of earlier co-financing programmes. Currently, concessional and patient debt financing is available to SMEs in a variety of sectors looking to finance their business development and/or decarbonisation solutions. Green bonds remain largely inaccessible to SMEs and no initiatives proposing an aggregated SME offering for the purpose of green bond issuance have been considered as yet.
- **Equity financing** targeting green financing remains scarce in Morocco as there are no equity or quasi-equity instruments dedicated exclusively to the green economy. However, private equity funds set up under the Innov Invest Fund are looking to invest in promising sustainability-focused start-ups and SMEs.
- **Other funds** supporting EE and decarbonisation investments and the promotion of specific industrial sectors with sustainable characteristics are also being created. Their financing will soon become available to Moroccan companies, including SMEs.
- **Guarantees** are being considered by TAMWILCOM. However, this instrument is currently not available on the market.

Sectoral breakdown: the diagram below presents the sectoral breakdown of the 13 considered financing sources. It demonstrates that SMEs in the agricultural and industrial sectors are eligible to access nine and eight of these sources, respectively, the most of any of the observed sectors.

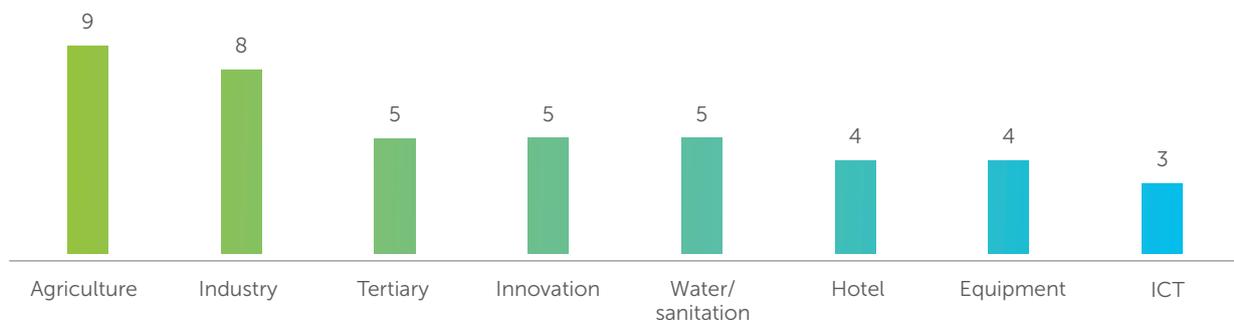
Figure 27: Sectoral analysis of green finance offers



(Source: the authors, 2022)

At the same time, other sectors or sub-branches with greening potential are either hardly covered by the current offers or not covered all. These include fisheries and real estate, identified as those with high green demand in the demand analysis. A broader gap analysis of demand and supply interaction is presented in Section 7.

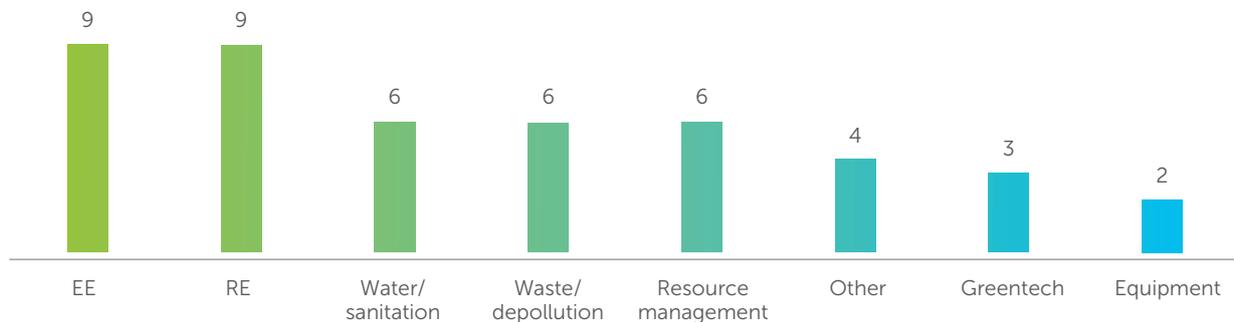
Figure 28: Number of green funding offers by sector



(Source: the authors, 2022)

Of the project types eligible for financing under the considered finance offer, EE and RE components remain the most popular with 9 of the 13 finance sources, followed by water efficiency/supply, resource management and waste management (see Figure 29).

Figure 29: Number of green funding offers by project type



(Source: the authors, 2022)

This suggests that energy solutions and decarbonisation technologies currently lead in terms of the finance offering, given the growing importance to tackling climate change, its prominent place in international climate policy and the clear financial benefits of implementing such technologies in light of growing energy costs. Nonetheless, it is important to ensure that other types of green technologies crucial to Morocco’s sustainability and social objectives also have access to financing.

6.3 Main findings

Based on the analysis of existing green finance offers for SMEs in Morocco and taking into account various exchanges during the consultations with stakeholders, certain findings which characterise the current offer and should be taken into consideration for the choice and design of the new financial instrument have been highlighted.

1	<p>Availability of financing: there are several lines of credit for green investment, some of which are financed by DFIs with favourable terms and conditions, grants and free technical assistance. Nevertheless, unless a local partner decides to sustain them, it is likely that these credit lines will gradually disappear due to their temporary nature.</p>
2	<p>Overall financing available: of the 13 main finance offers analysed in this study, 10 provide information on over USD 4.9 billion available financing planned for distribution between 2019 and 2024.⁵⁷</p>
3	<p>Eligibility: unlike other enterprise categories (e.g. VSEs, ISEs and LEs), SMEs are eligible for all current green offers. They also predominate in projects eligible for green credit lines. However, it is mainly the 'large' SMEs in terms of turnover, workforce and organisational resources that have benefited from the first financing offers put on the market, such as MorSEFF. Thus, it is important to ensure that VSEs also have access to financing, given their importance to the economy and the high number of people employed by them.</p>
4	<p>Preferred technologies: green credit lines mainly finance EE and RE projects at present. While these are crucial for tackling climate change and are important for Morocco's international trade given emerging policies like the CBAM, there is a need for other categories of green projects (e.g. flow optimisation, eco-designed products, carbon dioxide [CO₂] sequestration, circular economy and sustainable mobility). However, the recent establishment of certain initiatives, such as the AFD's credit line dedicated to adaptation, indicates that this situation has started to change.</p>
5	<p>Preferred sectors: green finance is primarily directed towards the industrial and agricultural sectors at present, resulting in certain sectors with high mitigation, adaptation and wider sustainability potential, such as housing or fisheries, gain little to no attention.</p>
6	<p>There is also a trend towards the automation of processes and the simplification of procedures for projects not requiring advanced technology, such as databases for eligible equipment and suppliers.</p>

Types of available finance:

1	<p>Grant financing: grants for SMEs have recently become available due to programmes implemented by the Moroccan government in the aftermath of the pandemic. These grants specifically cover green projects.</p>
2	<p>Debt financing: while there has been little take-up of the Green Invest (co-financing) and Tatwir Green Growth (investment premium) products, there has been success with the green credit lines offered by the DFIs, which, in addition to credit, provide a subsidy and free technical assistance and are consumed within a limited time. The MorSEFF line has been the most successful of these.</p>

⁵⁷ Distribution timelines are programme-specific and vary among the considered programmes.

	<ul style="list-style-type: none"> • There is a trend towards the harmonisation of eligibility criteria between different green offers (e.g. Green Invest with EBRD lines). • For DFI green credit lines, the analysis of the financial viability and risk of companies remains the responsibility of local banks. This indicates the need to strengthen the guarantee mechanism. • Apart from the lines financed by DFIs, commercial banks are reluctant to invest in green due to a lack of technical expertise and the high cost of green transactions.
3	<p>Equity financing:</p> <ul style="list-style-type: none"> • Only three investment funds devote part of their investments to green companies. Moreover, these funds mainly target greentech solutions and technologies. • Private equity fund management companies have expressed interest in structuring green equity and mezzanine funds, with some having already started thinking about this. • At the level of existing generalist equity funds, the presence of DFIs at the roundtable enables investment to be directed towards green projects.
4	<p>Stock market: SME green investments do not have the critical mass to use green bonds to attract institutional investors, the main player in the stock market, unless an aggregation mechanism is used to structure joint issues for a pool of SME projects.</p>
5	<p>Warranties: TAMWILCOM has a generic program targeting SMEs and covering credit guarantees with a wide target (note: the SIE is working with TAMWILCOM and Maroc PME on a new guarantee system , although it is not yet operational</p>
6	<p>The multitude of financing sources creates the possibility of benefiting from several offers for a single project, albeit without the accumulation of subsidies.</p>
7	<p>Types of projects lacking financing access: currently, a lack of financing for working capital requirements can be observed. Greenfield projects are ineligible for the current green offers.</p>
8	<p>Technical assistance:</p> <ul style="list-style-type: none"> • Only DFI-funded offers provide free technical assistance. • Some offers accept expertise provided by other offers (e.g. TAMWILCOM with EBRD lines and Tatwir Green Growth with Maroc PME and AMEE). • Commercial banks rely on technical assistance from DFIs with a relative transfer of knowledge.

7. Analysis of the gap between supply and demand and the challenges of green financing for SMEs

As a result of the analysis undertaken in Section 5.2, the economic subsectors with the higher greening potential in Morocco have been identified. In addition, Section 6.2 has mapped green finance sources in Morocco. In this section, a cross-analysis of these results allows for an assessment of which green finance sources cover which economic sectors, thus supporting identification of the financing gap.

Table 24 shows the green activities or components within each sector that would benefit from funding and how the current green finance supply covers these activities, together with the contribution each sector makes to Morocco's GDP. This allows for an assessment of their scale and importance to the national economy and, in turn, a visualisation of those sectors which have a high greening potential while currently being underserved by the available supply of green finance.

Based on the results of this cross-analysis, Table 25 summarises the green finance supply, highlighting the green components that are covered and, most importantly, the financing gap that needs to be addressed for each sector.

Box 11: Main findings of the gap analysis

Limited sectoral coverage

The agricultural and industrial sectors have high EVA and greening potential, making them the safest and most obvious sectors for the provision of investment subsidies and premiums. These two sectors are also predominant in terms of the green credit lines for which they are systematically eligible due to their economic importance and greening potential.

Some sectors with high greening potential (e.g. transport, water and electricity production) or that are most important for the national economy (e.g. construction, trade and health) remain poorly covered by the current green financing supply. The fact that these sectors also have lower EVA has likely contributed to them being underserved by the current supply of green financing. Green finance targeted at these sectors (e.g. through grants, loans, fiscal incentives and/or subsidies) can contribute to improving their competitiveness and increasing their EVA.

Limited coverage of the different green components and activities

The green finance supply is still mainly focused on EE and RE projects, despite the sizeable, untapped potential for greening the economy held by diverse components (e.g. fisheries and sustainable housing) insufficiently covered by the present supply of green finance.

Limited supply of financial instruments with a dedicated green offer

While the gap analysis undertaken in this section focuses mostly on how the current supply (i.e. grants, credit lines and equity) addresses different sectors and green components, a broader gap in the availability of green products has also been identified. Currently, the supply of guarantee/risk cover products does not address green projects specifically, and even the equity funds available are not exclusively dedicated to green activities, covering them instead through funding start-ups focused on the green economy.

(Source: the authors, 2022)

Table 24 (A): Green finance supply available per economic sector

Classification according to the NMA			Greening potential	Quantitative indicators	
Sector	Subsector	Activity*	Green components	Number of companies**	Cumulative turnover (MAD millions)
Agriculture, forestry and fisheries	Crop and animal production, hunting and related services	Non-permanent crops	EE of buildings; ER; technologies for smart agriculture, water saving and resilient crops; reforestation and World Food Programme (WFP) activities; CO2 sequestration techniques	2,803	221.4
		Permanent crops		2,689	293.3
		Animal production		1,196	6,891.5
	Fisheries and aquaculture	Fishing		14,522	2,717.4
Trade; repair of motor vehicles and motorbikes	Retail trade, except for motor vehicles and motorbikes	Other retail sale in specialised shops	Soft mobility; electric mobility; electrification of public transport; EE and RE in buildings	36,219	32,562.8
		Retail sale of food in specialised shops		12,363	5,438.4
		Retail sale of other household equipment in specialised shops		11,956	12,091.3
		Retail sale of motor fuels in specialised shops		2,415	27,793.8
		Retail sale in non-specialised shops		18,754	19,974.8
	Wholesale trade, except for motor vehicles and motorbikes	Other specialised wholesale		5,954	120,917.5
		Wholesale of household goods		5,245	15,326.9
		Wholesale of food, beverages and tobacco		6,362	28,294.1
		Non-specialised wholesale trade		7,123	102,560.7
		Intermediaries in wholesale trade		42,555	179,861.7
	Trade and repair of motor vehicles and motorbikes	Trade in automotive equipment		5,546	15,389.7
		Motor vehicle trade		794	23,823.1
		Trade and repair of motorbikes		1,818	1,092.2
		Maintenance and repair of motor vehicles		5,222	4,489.4
	Construction	Building construction	Construction of residential and non-residential buildings	EE and RE in buildings; water saving; waste management and recovery	4,020
Real estate development			21,291		69,378.8

Classification according to the NMA			Greening potential	Quantitative indicators			
Sector	Subsector	Activity*	Green components	Number of companies**	Cumulative turnover (MAD millions)		
Manufacturing industry	Specialised construction work	Other specialised construction work	Self-generation of energy from renewable sources and cogeneration; EE; efficient cooling technologies; sustainable resource and water management; waste management/circular economy	38,440	109,465.8		
		Electrical, plumbing and other installation work		8,405	21,540.4		
		Finishing work		7,014	6,602.7		
	Other manufacturing industries	Manufacturing n.e.c.		Self-generation of energy from renewable sources and cogeneration; EE; efficient cooling technologies; sustainable resource and water management; waste management/circular economy	376	14,435.1	
		Manufacture of other non-metallic mineral products			Manufacture of concrete, cement and plaster products	301	4,365.8
					Manufacture of cement, lime and plaster	260	13,553.8
					Manufacture of clay building materials	596	4,100.1
					Manufacture of glass and glassware	108	1,651.9
					Stone cutting, shaping and finishing	428	989.9
Manufacture of electrical equipment		Manufacture of other electrical equipment	191		6,575.2		
		Manufacture of wire and cable and electrical installation equipment	204		26,082.4		
		Manufacture of electric motors, generators, transformers and electrical distribution and control equipment	164		832.0		
Manufacture of beverages		Manufacture of beverages	150		10,087.9		
Manufacture of machinery and equipment n.e.c.	Manufacture of other general purpose machinery	110	1,559.5				
	Manufacture of other special purpose machinery	297	2,623.2				
Furniture manufacture	Furniture manufacture	757	4,371.0				
Manufacture of rubber and plastic products	Manufacture of plastic products	331	2,904.1				

Classification according to the NMA			Greening potential	Quantitative indicators	
Sector	Subsector	Activity*	Green components	Number of companies**	Cumulative turnover (MAD millions)
		Manufacture of rubber products		224	4,151.2
	Manufacture of computer, electronic and optical products	Manufacture of consumer electronics		119	371.9
	Manufacture of fabricated metal products, except for machinery and equipment	Manufacture of other fabricated metal products		543	9,202.1
		Manufacture of metal components for the construction industry		1,636	9,226.5
		Metal treatment and coating; machining		1,605	5,083.1
	Textile manufacturing	Manufacture of other textiles		683	1,555.3
		Textile fibre preparation and spinning		525	4,948.8
	Printing and reproduction of records	Printing and related services		2,324	6,351.6
		Reproduction of recordings		2,324	3,518.0
	Automotive industry	Manufacture of automotive equipment		102	6,349.1
		Manufacture of bodies and trailers		137	2,689.6
	Chemical industry	Manufacture of other chemical products		613	15,493.0
		Manufacture of basic chemicals, nitrogen products and fertilisers, basic plastics and synthetic rubber		268	24,634.6
	Clothing industry	Manufacture of wearing apparel, except for fur apparel		5,574	15,565.1
	Pharmaceutical industry	Manufacture of pharmaceutical preparations		117	16,932.5
	Food industry	Animal feed manufacturing		84	10,957.5
		Manufacture of other food products		279	12,834.4

Classification according to the NMA			Greening potential	Quantitative indicators	
Sector	Subsector	Activity*	Green components	Number of companies**	Cumulative turnover (MAD millions)
		Manufacture of vegetable and animal oils and fats		530	10,940.1
		Manufacture of bakery and pastry products		3,942	6,253.1
		Manufacture of dairy products		537	8,361.6
		Processing and preservation of fruit and vegetables		356	10,113.9
		Processing and preservation of meat and preparation of meat products		202	2,640.1
		Processing and preservation of fish, crustaceans and molluscs		106	1,025.2
		Grain processing; manufacture of starch products		929	17,280.0
	Metallurgy	Foundry		174	4,915.2
		Repair and installation of machinery and equipment		Repair of fabricated metal products, machinery and equipment	1,843
Extractive industries	Other extractive industries	Extraction of stones, sands and clays	EE of buildings and processes; ER; CO2 sequestration; wastewater recycling	922	5,173.2
		Extraction of stones, sands and clays		922	5,173.2
	Metal ore mining	Iron ore mining		659	60,626.5
Water production and distribution; sanitation, waste management and remediation	Water collection, treatment and distribution	Water collection, treatment and distribution	Water saving; waste management and recovery	412	15,643.8
Production and distribution of electricity, gas, steam and air conditioning	Production and distribution of electricity, gas, steam and air conditioning	Electricity generation, transmission and distribution	ER; EE in buildings; biogas; biofuel; green hydrogen	506	56,875.8

Classification according to the NMA			Greening potential	Quantitative indicators	
Sector	Subsector	Activity*	Green components	Number of companies**	Cumulative turnover (MAD millions)
Human health and social work	Social work without accommodation	Social work without accommodation for the elderly and disabled	EE; RE and water saving; waste recycling in health administration buildings; electric mobility for public transport of staff; service cars for civil servants	23	0.0
		Other social action without accommodation		659	308.5
	Activities for human health	Activity of doctors and dentists		14,851	2,337.5
		Hospital activities		778	5,943.7
		Other activities for human health		2,415	1,299.9
	Transport and storage	Postal and courier activities		Postal activities under a universal service obligation	Retrofit; sustainable transport
Other postal and courier activities			99	757.1	
Warehousing and auxiliary transport services		Warehousing and storage	5,421	15,808.2	
		Services auxiliary to transport	2,866	12,754.8	
Air transport		Air freight and space transport	541	1,473.6	
Land and pipeline transport		Other passenger land transport	17,676	7,488.1	
		Road freight transport and removal services	19,952	29,906.9	

* The activities highlighted in blue are those which might encompass activities included in the 'Harmonized EDFI Exclusion List' (see Annex X).

** Total number of companies as provided by the OMTPE.

(Source: the authors, 2022)

Table 24 (A): Green finance supply available per economic sector

Classification according to the NMA			Green finance initiatives (institutions and funds)														
			International					National									
Sector	Subsector	Activity*	GEFF	GVC	AFD/EIB Cap Bleu	AFD/CAM ISTIDAMA	Maroc PME	FDA	TAMWILCOM Green Invest	TAMWILCOM Renovetel	TAMWILCOM Optimised	CAM SEQUIII/ Solaire/	AWB Green Plan	BP Green Invest	Azur	MNF II	SEAF
			Credit/leasing	Credit/leasing	Credit	Credit	Grant	Grant	Credit	Credit	Credit	Credit	Credit/leasing	Credit	Equity	Equity	Equity
Agriculture, forestry and fisheries	Crop and animal production, hunting and related services	Non-permanent crops															
		Permanent crops															
		Animal production															
	Fisheries and aquaculture	Fishing															
Trade; repair of motor vehicles and motorbikes	Retail trade, except for motor vehicles and motorbikes	Other retail sale in specialised shops															
		Retail sale of food in specialised shops															
		Retail sale of other household equipment in specialised shops															
		Retail sale of motor fuels in specialised shops															
		Retail sale in non-specialised shops															
	Wholesale trade, except for motor vehicles and motorbikes	Other specialised wholesale															
		Wholesale of household goods															
		Wholesale of food, beverages and tobacco															
		Non-specialised wholesale trade															
		Intermediaries in wholesale trade															
	Trade and repair of motor vehicles and motorbikes	Trade in automotive equipment															
		Motor vehicle trade															
		Trade and repair of motorbikes															
		Maintenance and repair of motor vehicles															

Classification according to the NMA			Green finance initiatives (institutions and funds)																
			International					National											
Sector	Subsector	Activity*	GEFF	GVC	AFD/EIB Cap Bleu	ISTIDAMA	AFD/CAM	Maroc PME	FDA	TAMWILCOM Green Invest	TAMWILCOM Renovetel	TAMWILCOM Optimised	Solaire/ CAM SEQUII/	AWB Green Plan	BP Green Invest	Azur	MNF II	SEAF	
			Credit/leasing	Credit/leasing	Credit	Credit	Grant	Grant	Credit	Credit	Credit	Credit	Credit/leasing	Credit	Equity	Equity	Equity	Equity	
Construction	Building construction	Construction of residential and non-residential buildings																	
		Real estate development																	
	Specialised construction work	Other specialised construction work																	
		Electrical, plumbing and other installation work																	
		Finishing work																	
Manufacturing industry	Other manufacturing industries	Manufacturing n.e.c.																	
	Manufacture of other non-metallic mineral products	Manufacture of concrete, cement and plaster products																	
		Manufacture of cement, lime and plaster																	
		Manufacture of clay building materials																	
		Manufacture of glass and glassware																	
		Stone cutting, shaping and finishing																	
	Manufacture of electrical equipment	Manufacture of other electrical equipment																	
		Manufacture of wire and cable and electrical installation equipment																	
		Manufacture of electric motors, generators, transformers and electrical distribution and control equipment																	
	Manufacture of beverages	Manufacture of beverages																	
	Manufacture of machinery and equipment n.e.c.	Manufacture of other general purpose machinery																	

Classification according to the NMA			Green finance initiatives (institutions and funds)														
			International					National									
Sector	Subsector	Activity*	GEFF	GVC	AFD/EIB Cap Bleu	AFD/CAM ISTDAMA	Maroc PME	FDA	TAMWILCOM Green Invest	TAMWILCOM Renovetel	TAMWILCOM Optimised	CAM SEQUII/ Solaire/	AWB Green Plan	BP Green Invest	Azur	MNF II	SEAF
			Credit/leasing	Credit/leasing	Credit	Credit	Grant	Grant	Credit	Credit	Credit	Credit	Credit/leasing	Credit	Equity	Equity	Equity
		Manufacture of other special purpose machinery															
	Furniture manufacture	Furniture manufacture															
	Manufacture of rubber and plastic products	Manufacture of plastic products															
		Manufacture of rubber products															
	Manufacture of computer, electronic and optical products	Manufacture of consumer electronics															
	Manufacture of fabricated metal products, except for machinery and equipment	Manufacture of other fabricated metal products															
		Manufacture of metal components for the construction industry															
		Metal treatment and coating; machining															
	Textile manufacturing	Manufacture of other textiles															
		Textile fibre preparation and spinning															
	Printing and reproduction of records	Printing and related services															
		Reproduction of recordings															
	Automotive industry	Manufacture of automotive equipment															
		Manufacture of bodies and trailers															
	Chemical industry	Manufacture of other chemical products															

Classification according to the NMA			Green finance initiatives (institutions and funds)													
			International					National								
Sector	Subsector	Activity*	GEFF	GVC	AFD/EIB Cap Bleu	AFD/CAM ISTIDAMA	Maroc PME	FDA	TAMWILCOM Green Invest	TAMWILCOM Renovetel	TAMWILCOM Optimised Solaire/	AWB Green Plan CAM SEQUII/	BP Green Invest	Azur	MNF II	SEAF
			Credit/leasing	Credit/leasing	Credit	Credit	Grant	Grant	Credit	Credit	Credit	Credit/leasing	Credit	Equity	Equity	Equity
		Manufacture of basic chemicals, nitrogen products and fertilisers, basic plastics and synthetic rubber														
	Clothing industry	Manufacture of wearing apparel, except for fur apparel														
	Pharmaceutical industry	Manufacture of pharmaceutical preparations														
	Food industry	Animal feed manufacturing														
		Manufacture of other food products														
		Manufacture of vegetable and animal oils and fats														
		Manufacture of bakery and pastry products														
		Manufacture of dairy products														
		Processing and preservation of fruit and vegetables														
		Processing and preservation of meat and preparation of meat products														
		Processing and preservation of fish, crustaceans and molluscs														
		Grain processing; manufacture of starch products														
	Metallurgy	Foundry														

Classification according to the NMA			Green finance initiatives (institutions and funds)														
			International					National									
Sector	Subsector	Activity*	GEFF	GVC	AFD/EIB Cap Bleu	AFD/CAM ISTIDAMA	Maroc PME	FDA	TAMWILCOM Green Invest	TAMWILCOM Renovetel	TAMWILCOM Optimised	Solaire/ CAM SEQUIL/	AWB Green Plan	BP Green Invest	Azur	MNF II	SEAF
			Credit/leasing	Credit/leasing	Credit	Credit	Grant	Grant	Credit	Credit	Credit	Credit	Credit/leasing	Credit	Equity	Equity	Equity
	Repair and installation of machinery and equipment	Repair of fabricated metal products, machinery and equipment															
Extractive industries	Other extractive industries	Extraction of stones, sands and clays															
		Extraction of stones, sands and clays															
	Metal ore mining	Iron ore mining															
Water production and distribution; sanitation, waste management and remediation	Water collection, treatment and distribution	Water collection, treatment and distribution															
Production and distribution of electricity, gas, steam and air conditioning	Production and distribution of electricity, gas, steam and air conditioning	Electricity generation, transmission and distribution															
Human health and social work	Social work without accommodation	Social work without accommodation for the elderly and disabled															
		Other social action without accommodation															
	Activities for human health	Activity of doctors and dentists															
		Hospital activities															
		Other activities for human health															
Transport and storage	Postal and courier activities	Postal activities under a universal service obligation															
		Other postal and courier activities															

Classification according to the NMA			Green finance initiatives (institutions and funds)															
			International					National										
Sector	Subsector	Activity*	GEFF	GVC	AFD/EIB Cap Bleu	ISTIDAMA	AFD/CAM	Maroc PME	FDA	TAMWILCOM Green Invest	TAMWILCOM Renovetel	TAMWILCOM Optimised	Solaire/ CAM SEQUIII/	AWB Green Plan	BP Green Invest	Azur	MNF II	SEAF
			Credit/leasing	Credit/leasing	Credit	Credit	Grant	Grant	Grant	Credit	Credit	Credit	Credit	Credit/leasing	Credit	Equity	Equity	Equity
	Warehousing and auxiliary transport services	Warehousing and storage																
		Services auxiliary to transport																
	Air transport	Air freight and space transport																
	Land and pipeline transport	Other passenger land transport																
		Road freight transport and removal services																

* The activities highlighted in blue are those which might encompass activities included in the 'Harmonized EDFI Exclusion List' (see Annex X). (Source: the authors, 2022)

Table 25: Analysis of the gap between sectoral demand for green components requiring financing and the level of coverage of these components by available financial instruments

Sector	Contribution to GDP (%)	Application Greening potential score	Supply		Recommended actions to address the gaps	
			Green components	Eligibility of sector		
Agriculture, forestry and fisheries	12	4/6	<ul style="list-style-type: none"> EE of buildings. RE. Technologies: smart agriculture, water saving and resilient crops. Reforestation and WFP activities. CO2 sequestration techniques. 	<ul style="list-style-type: none"> Premium and subsidy: eligible for FDA subsidy. Credit/leasing: eligible for all eight credit lines, with fishing covered by two lines only. Equity: equity offers funding for agritech components only. 	<ul style="list-style-type: none"> Only the 'water saving' and 'resilient crops' (fruit growing) components are eligible for FDA funding. Only the EE, RE and water saving components are covered by the credit lines. 	<ul style="list-style-type: none"> Integrate RE and EE projects, reforestation and sequestration techniques into projects eligible for FDA funding. Provide credit for the fisheries subsector. Extend the current offers to all green components.
Trade; repair of motor vehicles and motorbikes	10	3/6	<ul style="list-style-type: none"> Soft mobility. Electric mobility. Electrification of public transport. EE and RE in buildings. 	<ul style="list-style-type: none"> No grant or equity offers. Credit/leasing: four offers cover this sector, namely Green Invest, GEFF, the Green Plan and BP Green. 	<ul style="list-style-type: none"> All green components of this sector are covered by these offers. 	<ul style="list-style-type: none"> No additional credit offers are required for this sector.
Construction	13	3/6	<ul style="list-style-type: none"> EE and RE in buildings. Water saving. Waste management and recovery. 	<ul style="list-style-type: none"> No grant or equity offers. Credit/leasing: <ul style="list-style-type: none"> real estate development only eligible for the Renovotel product for the hotel industry and the Cap Bleu line (water saving); and the other branches are eligible for various credit lines except for the GVC. 	<ul style="list-style-type: none"> The green components of the construction sector are covered by the available offers. 	<ul style="list-style-type: none"> Encourage this sector through subsidies (e.g. inclusion in the sectors eligible for the Maroc PME bonus). Provide a green equity offer for this capital-intensive sector.
Manufacturing industry	15	5/6	<ul style="list-style-type: none"> Self-generation of energy from renewable sources and cogeneration. Cooling technologies. Sustainable resource and water management. Waste management/ circular economy. 	<ul style="list-style-type: none"> Bonus and subsidy: eligible for the Maroc PME bonus. Credit/leasing: eligible for all credit lines. Equity: equity offers finance only new solutions and technologies (e.g. greentech, heathtech, agritech). 	<ul style="list-style-type: none"> All green components of the industry are covered by the current offer. 	<ul style="list-style-type: none"> No additional credit offers are required for this sector. Provide a green equity offer for the manufacturing industry.

Sector	Contribution to GDP (%)	Application Greening potential score	Supply		Recommended actions to address the gaps
			Green components	Eligibility of sector	
Extractive industries	2	3/6	<ul style="list-style-type: none"> EE of buildings and processes. ER. CO2 sequestration. Wastewater recycling. 	<ul style="list-style-type: none"> Bonus and subsidy: not eligible for the Maroc PME bonus (low value added activity). Credit/leasing: eligible for all credit lines (except CAM). Equity: equity offerings only fund new solutions and technologies. 	<ul style="list-style-type: none"> EE, RE and wastewater recycling components are covered. Extend credit lines to all green components of this sector.
Water production and distribution; waste sanitation, waste management and remediation	2	4/6	<ul style="list-style-type: none"> Water saving. Waste management and recovery. 	<ul style="list-style-type: none"> No grant or equity offer. Credit/leasing: covered by all credit lines (except CAM). 	<ul style="list-style-type: none"> No additional credit offers are required for this sector. Provide a green equity offer for this sector.
Production and distribution of electricity, gas, steam and air conditioning	2	5/6	<ul style="list-style-type: none"> ER. EE in buildings. Biogas. Biofuel. Green hydrogen. 	<ul style="list-style-type: none"> No grant or equity offer. Credit/leasing: covered by credit lines (excluding CAM and Cap Bleu). 	<ul style="list-style-type: none"> Extend credit lines to all green components of this sector. No additional credit offers are required for this sector. Provide a green equity offer for this sector.
Human health and social work	5	3/6	<ul style="list-style-type: none"> EE. RE. Water saving. Waste recycling in health administration buildings. Electric mobility. 	<ul style="list-style-type: none"> No grant offer. Credit/leasing: Only 4 offers cover this sector. Equity: Eligible for current offers for the healthcare component. 	<ul style="list-style-type: none"> Extend the equity offer to cover components beyond healthcare.
Transport and storage	3	5/6	<ul style="list-style-type: none"> Retrofit. Sustainable transport. 	<ul style="list-style-type: none"> No grant offer.⁵⁸ Credit/leasing: five offers cover this sector, namely Green Invest, GEFF, GVC, the Green Plan and BP Green. Equity: eligible for current offers for greentech solutions. 	<ul style="list-style-type: none"> No additional credit offers are required for this sector. Provide a green equity offer for this capital-intensive sector.

(Source: the authors, 2022)

⁵⁸ Other than scrapping and renewal premiums for certain activities (e.g. freight transport and taxis).

The gap analysis undertaken within this study has been limited by the availability of existing studies, data and information gathered through stakeholder consultation, which was ultimately insufficient to allow for a quantitative assessment of the green finance gap for SMEs in Morocco. Still, the findings of the analysis have identified: 1) high green potential associated with the various sectors of activity identified as relevant; 2) several measures being implemented at a national level to promote green activities (e.g. green taxation and development of the green taxonomy); 3) strong and ambitious targets associated with Morocco's NDC; 4) a systematic consideration of the green dimension at the level of national sectoral plans; and 5) significant gaps in the current finance supply to SMEs in terms of providing dedicated green products and/or coverage of relevant sectors and green elements.

Hence, the gap analysis demonstrated significant demand for green financing among SMEs and gaps in green finance supply in terms of its sectoral scope, project types covered and financing instrument types. With Morocco's ambitious NDC implementation plans requiring USD 78.8 billion over the next eight years and 40% of actions to be implemented by SMEs, this demand is likely to grow, particularly if the awareness of green financial opportunities continues to increase. Given the specific characteristics of SMEs and green projects, the green finance offer currently available (i.e. estimated at around USD 4.9 billion between 2019 and 2014) appears to be inadequate.⁵⁹ Therefore, it will be necessary to expand the finance offer through strengthening existing financing programmes and implementing new instruments.

Box 12: Banque Centrale Populaire roadshow

A roadshow organised by the BCP assessed the national investment potential in 2021. It identified 711 investment plans equivalent to an investment volume of MAD 16 billion. Of this investment volume, MAD 9.4 billion represented the financing need not covered by the sources currently available. However, the BCP was able to quantify the secured financing for 240 projects, equivalent to MAD 2.3 billion and representing 25% of investment needs. Of these projects, 33 were qualified as 'green', securing financing of MAD 308 million and representing 13% of the total number of projects carried out.

Investment potential identified:

Investment intentions:	711 projects
Investment volume:	MAD 16 billion
Financing gap:	MAD 9.4 billion (58% of the total demand identified)
Funding materialised:	254 projects in receipt of MAD 2.3 billion or 25% of investment needs
Share of green funding:	33 projects in receipt of MAD 308 million or 13% of investment needs

(Source: BCP, 2021)⁶⁰

The finance offerings presently available, mainly those initiated by DFIs, play a key role in promoting market learning and business model development. As the green segments mature over time, it should be expected that, even without DFI contributions, local FIs will become willing to provide financing to green SMEs through the transfer of knowledge and technical expertise. There is an opportunity to redeploy and expand current offerings to meet the increased demand in the Moroccan market.

In addition to the gaps related to sectoral coverage and the inclusion of green components in financial instruments, other factors contribute to the imbalance between the current demand and supply of green finance. These factors

⁵⁹ Of the 13 main finance offers analysed in this study, 10 provide information on over USD 4.9 billion of available financing planned for distribution between 2019 and 2024.

⁶⁰ Banque Centrale Populaire. 2021. Assessment of the BCP roadshow. <https://entreprise.groupebcp.com/fr/Pages/Regionales-de-l-investissement.aspx>

were raised during the consultations with different stakeholders and represent lessons learned from their previous experiences in green SME financing and with the barriers identified, which should be tackled by the government in order to successfully adapt green financing to Moroccan SMEs. While some of the barriers and issues identified relate to structural aspects of the demand and inherent characteristics of SMEs, others relate to how green finance is currently supplied to the market.

Box 13: Barriers and challenges associated with the supply of green finance to small and medium-sized enterprises

Processes and modalities of financing are, in some cases, inadequate for addressing the needs of SMEs. Further efforts are required to address constraints and ensure funding can be accessed by SMEs.

- The timelines associated with processing applications for funding and carrying out technical assessments are relatively long. Moreover, in some cases, funding is released only after partial completion of the project, posing cash flow limitations.
- Grants are calculated on the basis of the eligible credit and not on the cost of the investment.
- VAT is not covered as much of the supply currently available (except for Tatwir Green Growth) only finances the costs excluding VAT.

Equity fund managers face issues in raising funds specifically targeted at green activities

From an investor perspective, fund managers need to raise the funds to set up equity instruments and often face challenges to obtain such funding from DFIs due to their risk management policies. DFIs generally have preferences for providing resources to funds with a broader target (i.e. not limited to SMEs, Morocco, equity investments or green elements).

The lack of local expertise in the green economy limits the green finance supply in Morocco

One of the major constraints raised by stakeholders during the consultative process was the need for enhanced technical expertise in the green economy. With the exception of green credit lines financed by international donors, which generally offer technical assistance, other financing offers require SMEs to obtain prior certification of their projects. This generates additional costs for companies which often face issues with identifying reliable and credible experts to undertake such certifications.

A lack of internal technical expertise in the green economy was also raised by local banks, which have only recently started exploring green financing activities and do not have qualified staff to properly assess the applications received. While partnerships with international donors have helped to strengthen their internal capacities, this knowledge transfer remains relatively insufficient, and local banks are still dependent on the technical capacity of their international partners and external firms.

Need to strengthen the offer of guarantee dedicated specifically for green projects

Despite TAMWILCOM's efforts in terms of guarantee offers, there is no guarantee system adapted and dedicated specifically to green projects to counterbalance the cost of transactions, support commercial banks and sufficiently manage financing risks.

The regulatory framework does not provide sufficient incentives for SMEs to pursue a clean energy transition

The inadequacy of the regulatory framework for the green economy in Morocco is also a barrier to the energy transition of SMEs. Despite the adoption of the decree on ESCOs, their accreditation process needs to be improved and streamlined in order to accelerate the implementation of EE projects. Furthermore, companies with RE projects still face unfavourable regulations in terms of support for self-generation of electricity.

(Source: the authors, 2022)

Box 14: Barriers and challenges associated with the demand for green finance from small and medium-sized enterprises

Lack of information and interest from SME drives

Following the stakeholder consultation, it is apparent that one of the main challenges associated with the demand for green finance is the low awareness and/or interest of SMEs in the importance of the green economy and the potential that green activities, including energy transition, can bring to enhance their EVA and competitiveness. Furthermore, a large proportion of SMEs remain unaware of the green finance offers available to them in the Moroccan market.

The inherent characteristics of SMEs also contribute to creating barriers in access to finance

SMEs are generally less structured and insufficiently equipped to be eligible for existing offers with regard to investor requirements that are sometimes unsuited to the particularity of Moroccan SMEs. Added to this is the lack of solvency and the undercapitalisation of SMEs (i.e. current offers require a minimum of 20% equity). Moreover, equity investors in Morocco are currently faced with a limited pipeline of viable SMEs willing to open their capital. Targeted support to improve the governance of SMEs could potentially contribute to an increase in the number of SMEs eligible for meeting investor requirements.

Green projects and investments tend to have higher costs in the short term and longer payback periods than ordinary investments

The cash flow trends of green projects tend to be generally different from regular investments, resulting in specific investment needs. Green projects are relatively costly at first and their profitability only occurs in the medium to long term, which further increases transaction costs. A fiscal incentive framework in favour of green projects and SMEs in particular could be established to address this issue.

(Source: the authors, 2022)

Finally, the analysis undertaken in this study and the stakeholder consultation also point towards the importance of developing green technologies and expanding innovation and research and development (R&D) activities in Morocco to strengthen the green economy and the country's energy transition. Challenges associated with financing green technologies are mostly related to: 1) the early maturity stages of green technology making them less attractive to investors (e.g. the only three funds which cover green technology development in Morocco at present are not specifically dedicated to these activities); 2) a lack of local technical capabilities, academic training and specialised universities to foster start-ups; 3) a lack of sufficient incentives for R&D (e.g. taxation and subsidies); and 4) a limited early equity ecosystem (e.g. accelerators and business angels).

8. Recommendations

This section provides recommendations and presents opportunities for addressing the barriers and challenges identified in Section 7. The implementation of such measures has the potential to improve SMEs' access to green finance in Morocco, thereby reducing the current gap and contributing to greening the country's economy and the achievement of NDC targets. These recommendations can inform the design and implementation of future government policies and guide the development of a new financial instrument, set to be the focus of WS2 of this assignment.

The actions to be implemented in the framework presented in Table 26 can support the creation of conditions that will contribute to the success of any green financial instrument due to be implemented, as they have been designed to target the gap and barriers identified from both the supply and demand sides. Some of the measures proposed are directly linked to the green finance offer, while others can more broadly contribute to strengthening the green ecosystem in Morocco and incentivising SMEs to invest in green activities.

However, while the priority level of each recommendation is presented, the provision of further details and a strategic roadmap for their implementation would require more in-depth analysis of each component, including further stakeholder consultation with the actors involved in their implementation and the identification of similar experiences in other countries to highlight examples of best practice which can be adapted to the Moroccan national context.

Box 15: Recommendations for getting financial support from partners to improve small and medium-sized enterprises' access to green finance in Morocco

The implementation of the suggested recommendations could potentially be funded through a support mechanism for green SME financing, to be set up with the support of financial partners. This support could potentially take the form of a loan underpinning reforms to SME financing, such as implementing a selection of programmes according to their priority level and impact on the removal of barriers to green SME financing. In this respect, it is worth mentioning that several DFIs have reviewed their strategies for Morocco by orienting them more towards financial inclusion and sustainable development. In addition, these DFIs, some of which took part in the consultations (i.e. the AFD, KfW and EBRD), already have experience in this area via the green credit lines to which they have contributed. They are therefore fully aware of the importance of implementing various reforms to strengthen the green financing ecosystem in Morocco and ensure the suitability and sustainability of current and new financial offers. Contributions to the financing of this support mechanism for SME green financing should interest them and fit well within their strategies. Examples that illustrate similar approaches include:

- The USD 350 million loan approved by the World Bank earlier in 2022 to support the Moroccan government in implementing its Blue Economy programme⁶¹ and the USD 56 million AfDB-funded Moroccan Medical Coverage Reform Support Programme;⁶²

⁶⁰ World Bank. (2022, May 23). World Bank Support for the Development of Morocco's Blue Economy [Press release]. <https://www.worldbank.org/en/news/press-release/2022/05/23/world-bank-support-for-the-development-of-morocco-s-blue-economy>

⁶¹ AfDB. (n.d.). Morocco - The Medical Coverage Reform Support Programme Phase II (PARCOUM II). Retrieved from <https://projectsportal.afdb.org/dataportal/VProject/show/P-MA-IBD-008>

Box 15: Recommendations for getting financial support from partners to improve small and medium-sized enterprises' access to green finance in Morocco (continued)

- The USD 500 million loan approved by the World Bank earlier in 2022 to support the Peruvian government in implementing reforms to strengthen the foundations for a green economic recovery;⁶³ and
- The USD 100 million Reform Implementation Development Policy Loan (RIDPL) supported by the World Bank in Lebanon to advance the implementation of critical reforms, with a particular emphasis on energy, business environment and social services.⁶⁴

(Source: the authors, 2022)

Table 26: Recommendations

Barriers/challenges	Recommendations	Priority
Regulatory framework	Acceleration of the ESCO accreditation scheme.	
	Make mandatory regulatory energy audits effective.	
	Improve the framework for self-generation of electricity to allow companies to feed their production into the grid.	
	Improve the framework for public procurement (e.g. increasing the maximum duration of public procurement to match the duration of EPCs).	
	Accelerate the entry into force of the requirements of the new decree currently being drafted to address the general clauses in public contracts and replace Decree No. 2-12-349 of 2013.	
	Ease prudential regulation rules on banks in favour of financing green projects of SMEs.	
Tax framework	Restore the cost and risk balance of green projects through fiscal incentives (e.g. VAT on green equipment, customs duties, tax credits and accelerated depreciation).	
	Tax energy-intensive sectors.	
	Review the texts governing the fees related to the direct and indirect discharge of liquid effluents from industrial units into the receiving environment.	
	Adopt the decree on the discharge of industrial units into the coastline.	

⁶³ World Bank. (2022, March 31). The World Bank Approved a US\$ 500 Million Loan to Strengthen the Foundations for a Green, Resilient Economy in Peru [Press release]. <https://www.worldbank.org/en/news/press-release/2022/03/31/the-world-bank-approved-a-us-500-million-loan-to-strengthen-the-foundations-for-a-green-resilient-economy-in-peru>

⁶⁴ World Bank. (n.d.). Reform Implementation Development Policy Loan (RIDPL). Retrieved from <https://projects.worldbank.org/en/projects-operations/project-detail/P094288>

Barriers/ challenges	Recommendations	Priority
	Strengthen the control and monitoring capacity of the environmental police to ensure compliance with the parameters for liquid, gaseous and solid discharges from stationary and mobile emission sources in industry.	
Green taxonomy	Accelerate the implementation of a taxonomy for green projects.	
Information/ awareness raising	Design and implement awareness campaigns for SMEs on the benefits of energy transition and information on green finance offers.	
Eligibility of SMEs	Provide targeted support to improve the structure and governance of SMEs and strengthen their equity capital.	
	Ease the conditions for access to finance in exchange for stronger monitoring mechanisms.	
	Strengthen the ecosystem around the main donors for the management of risks associated with SMEs.	
	Establish an adapted and dedicated guarantee scheme for green projects.	
Technical assistance	Provide capacity building for public and private sector actors involved in green finance.	
	Provide capacity building to address SMEs' weaknesses (e.g. lack of financial literacy and transparency, poor governance and risk management practices).	
	Build on the technical expertise of the AMEE.	
	Certify, promote and support credible local institutions that have strong capabilities in the green economy.	
	Provide capacity building for trainers and potential technical assistance providers.	
Green economy ecosystem	Promote greentech industrial sectors.	
	Create a market for certified green equipment.	
	Promote an effective involvement of the public sector in improving and disseminating knowledge and initiating the required fiscal and regulatory reforms.	

(Source: the authors, 2022)

 Low  Medium  High

The design and implementation of a new financial instrument will be the focus of WS2 of this assignment. However, the findings of the work undertaken under WS1 already provide some directions for its design. The results of the supply, demand and gap analyses and the consultations with different stakeholders point to two main scenarios for the nature of the instrument to be put in place, namely an equity fund or a guarantee mechanism. Table 27 presents the characteristics of each instrument and their potential contribution to addressing the current gap identified in the provision of green finance to SMEs in Morocco.

Table 27: Potential new green finance instrument to be designed in Workstream 2

	Equity funds	Guarantee mechanism
Features	<ul style="list-style-type: none"> Private equity fund dedicated to green SMEs with OPCC status. 	<ul style="list-style-type: none"> Guarantee facility for green projects with favourable conditions. Possibility of taking the form of a green component from an existing classical guarantee mechanism or a guarantee fund partly financed by national or international partners.
Green sectors and components	<ul style="list-style-type: none"> Multi-sector; covering all green components to broaden the project pipeline and diversify portfolio risk. 	<ul style="list-style-type: none"> Multi-sectoral; covering all green components to maximise applicability to current and future green credit lines.
Benefits	<ul style="list-style-type: none"> Remove the barrier of undercapitalisation of SMEs. Structure and equip SMEs to carry out bankable green projects (i.e. technical expertise and governance). Improve the creditworthiness of SMEs and, consequently, their credit risk. Capture demand to direct and facilitate access to existing supply and create a catalytic effect. Take advantage of post-COVID recovery to restructure SMEs in crisis (i.e. in terms of competitiveness, access to international value chains on a green basis) through the energy transition. Benefit from the advantages of the OPCC status, i.e. tax transparency, access to new investors, familiarisation with market regulations and preparation for a stock market exit. 	<ul style="list-style-type: none"> Improve the bankability of green transactions. Addressing the perceived high-risk classification of SMEs. Reduce banks' credit risk, thereby mitigating their costs and exposure. Facilitate access to current green offers for SMEs. Less market distortions compared to other policy interventions (i.e. direct lending and public banks). Learning opportunity: banks will be able to gain experience in assessing risks for SMEs and green projects and will develop ways to reduce transaction costs and further develop this market segment. This will strengthen the sustainability of the offer.
Boundaries	<ul style="list-style-type: none"> Limited pipeline of viable green SMEs willing to open up their capital. Fundraising constraints: reluctance of investors to invest in specialised funds (risk management). The underperformance of some private equity funds in Morocco is discouraging institutional investors. This financing option will require renewed investor confidence. 	<ul style="list-style-type: none"> SMEs may feel less obliged to repay guaranteed loans. However, banks may be more lax in their risk assessment and client monitoring functions due to the reduction in overall risk provided under the guarantee. Risk of encouraging SME dependence on bank loans rather than diversifying their sources of finance. Risk of insufficient bank participation. The guarantee mechanism will not act on the internal structure of the SME and improve its credit risk. Challenge of the financial viability of the mechanism and its ability to attract financial partners in the case of a public-private guarantee fund.

(Source: the authors, 2022)

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9.2 Moroccan laws and strategies for the circular economy

The laws applied by Morocco to contribute to the circular economy include the following:

- Framework Law No. 99-12 on the National Charter for the Environment and Sustainable Development;
- Law No. 36-15 on water;
- Law No. 12-03 on impact studies;
- Law No. 13-03 on the fight against air pollution;
- Law No. 28-00 on waste management and disposal; and
- Law No. 15-58 on renewable energies, amending Law 13-09.

The plans and strategies are as follows:

- the National Water Strategy (2009);
- the National Plan against Global Warming (2009);
- the Green Morocco Plan for Agriculture (2008), now Generation Green 2020–2030 (2020);
- the Halieutis Plan (2020);
- the Morocco Solar Plan (2020);
- the Integrated Wind Energy Programme (2020);
- EE in buildings and the transport industry (2030);
- the National Irrigation Water Saving Programme (2030);
- the National Programme for the Management of Household and Similar Waste; and
- the National Liquid Sanitation Plan.⁶⁵

9.3 Webography

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⁶⁵ Diaco, M., Merrouni, M. A., Bougarrani, S., Koehler, J., Hemkhaus, M., Ahlers, J., Desmond, P., Van Hummelen, S., & McGovern, M. (2020, November). Circular Economy in Africa-EU Cooperation: Country Report Morocco, 19. European Commission. https://trinomix.eu/wp-content/uploads/2020/12/Country-Report-Morocco_Final_20201218_EN.pdf

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Bank Al-Maghrib: <https://www.bkam.ma/>

Bank of Africa-*Banque Marocaine du Commerce Extérieur Group* [Moroccan Bank of Foreign Commerce]: <https://www.bankofafrica.ma/>

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House of Representatives of Morocco: <https://www.chambredesrepresentants.ma/>

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Trading Economics: <https://fr.tradingeconomics.com/>

United Nations Environment Programme: <https://www.unep.org/fr>

ANNEX I

Green economy sectors as defined by stakeholders during consultations

Table 28: Green economy sectors as defined by stakeholders during consultations

Stakeholders	Green economy sectors
CGEM	The Green Economy Commission considers the following axes: 1) EE and RE; 2) green industry through circular economy and resource efficiency; 3) water efficiency; 4) electric mobility; and 5) environment and climate (i.e. links with biodiversity, ecosystems and decarbonisation).
BOA-BMCE	Focus on industry to serve the industrial recovery plan, e.g. EE, RE, waste management, water management and green buildings.
AWB	Self-generation of energy, EE, EE in public lighting for local authorities, energy diagnostics and encouraging the creation of ESCOs.
CAM	Optimisation of water resource and solar energy use in irrigation, agri-food waste management, organic agriculture, financing the installation of weather stations at farm level, micro-irrigation, solar pumping, EE and RE (including solar and biomass energy).
BP	RE (including solar), EE and biomass.
AMIC	Automotive industry, Health, ICT, Food industry, Retail Construction and public works, other industries (aeronautics, education, packaging, chemical industry and others), services
Azur Innovation Management	Agriculture, agrifood, agritech, fintech, biotech, medtech, edtech and cleantech.
TAMWILCOM	Hydro, geothermal, EE, solar lighting and recycling.
KfW	EE and ER.
EBRD	EE, RE, waste management, water management, green buildings and associated technical assistance.
AFD	Agri-food, water management, EE in buildings (e.g. thermal insulation), wastewater treatment plants (WWTPs), ESCO and RE. Generally no exclusions (except asbestos).
Maroc PME	<ul style="list-style-type: none"> • Energy transition projects, including EE and RE. • Initiate projects in green industrial sectors that seize new market opportunities (e.g. production of industrial recycling equipment, solar and PV water heaters and thermal insulation products). • Innovation and development projects for eco-designed products with positive carbon footprints (e.g. hybrid or electric vehicles, electric motorbikes, organic products and products made from recycled materials). • Projects for the implementation of clean technologies in manufacturing processes and material flows, allowing a rational use of raw materials and a reduction in the quantity of effluents polluting the environment (e.g. WWTP, thermal insulation and waste recycling).
AMEE	Waste recovery, energy, vehicle renewal, scrap, fuel oil replacement and the circular economy.
SIE	RE, EE and buildings.

(Source: the authors, based on stakeholder consultations for this study, 2022)

ANNEX II

EU Green Taxonomy⁶⁶

Table 29: EU green taxonomy

Sector	Activity
Forestry	Afforestation
	Rehabilitation and restoration of forests, including reforestation and natural forest regeneration after an extreme event
	Forest management
	Conservation forestry
Environmental protection and restoration activities	Restoration of wetlands
Manufacturing	Manufacture of RE technologies
	Manufacture of equipment for the production and use of hydrogen
	Manufacture of low-carbon technologies for transport
	Manufacture of batteries
	Manufacture of EE equipment for buildings
	Manufacture of other low-carbon technologies
	Manufacture of cement
	Manufacture of aluminium
	Manufacture of iron and steel
	Manufacture of hydrogen
	Manufacture of carbon black
	Manufacture of soda ash
	Manufacture of chlorine
	Manufacture of organic basic chemicals
	Manufacture of anhydrous ammonia
	Manufacture of nitric acid
Manufacture of plastics in primary form	
Energy	Electricity generation using solar PV technology
	Electricity generation using concentrated solar power (CSP) technology
	Electricity generation from wind power
	Electricity generation from ocean energy technologies
	Electricity generation from hydropower

⁶⁵ European Commission, EU Taxonomy Compass.

Sector	Activity
	Electricity generation from geothermal energy
	Electricity generation from renewable non-fossil gaseous and liquid fuels
	Electricity generation from bioenergy
	Transmission and distribution of electricity
	Storage of electricity
	Storage of thermal energy
	Storage of hydrogen
	Manufacture of biogas and biofuels for use in transport and of bioliquids
	Transmission and distribution networks for renewable and low-carbon gases
	District heating/cooling distribution
	Installation and operation of electric heat pumps
	Cogeneration of heat/cool and power from solar energy
	Cogeneration of heat/cool and power from geothermal energy
	Cogeneration of heat/cool and power from renewable non-fossil gaseous and liquid fuels
	Cogeneration of heat/cool and power from bioenergy
	Production of heat/cool from solar thermal heating
	Production of heat/cool from geothermal energy
	Production of heat/cool from renewable non-fossil gaseous and liquid fuels
	Production of heat/cool from bioenergy
	Production of heat/cool using waste heat
Water supply, sewerage, waste management and remediation	Construction, extension and operation of water collection, treatment and supply systems
	Renewal of water collection, treatment and supply systems
	Construction, extension and operation of waste water collection and treatment
	Renewal of waste water collection and treatment
	Collection and transport of non-hazardous waste in source segregated fractions
	Anaerobic digestion of sewage sludge
	Anaerobic digestion of bio-waste
	Composting of bio-waste
	Material recovery from non-hazardous waste
	Landfill gas capture and utilisation
	Transport of CO ₂
	Underground permanent geological storage of CO ₂
Transport	Passenger interurban rail transport
	Freight rail transport
	Urban, suburban and road passenger transport
	Operation of personal mobility devices and cycle logistics
	Transport by motorbikes, passenger cars and light commercial vehicles

Sector	Activity
	Freight transport services by road
	Inland passenger water transport
	Inland freight water transport
	Retrofitting of inland water passenger and freight transport
	Sea and coastal freight water transport, vessels for port operations and auxiliary activities
	Sea and coastal passenger water transport
	Retrofitting of sea and coastal freight and passenger water transport
	Infrastructure for personal mobility and cycle logistics
	Infrastructure for rail transport
	Infrastructure enabling low-carbon road transport and public transport
	Infrastructure enabling low-carbon water transport
	Low-carbon airport infrastructure
Construction and real estate	Construction of new buildings
	Renovation of existing buildings
	Installation, maintenance and repair of EE equipment
	Installation, maintenance and repair of charging stations for electric vehicles in buildings and parking spaces attached to buildings
	Installation, maintenance and repair of instruments and devices for measuring, regulating and controlling the energy performance of buildings
	Installation, maintenance and repair of RE technologies
	Acquisition and ownership of buildings
Information and communication	Data processing, hosting and related activities
	Data-driven solutions for GHG emission reductions
	Computer programming, consultancy and related activities
	Programming and broadcasting activities
Professional, scientific and technical activities	Close to market research, development and innovation
	R&D and innovation for direct air capture of CO ₂
	Professional services related to the energy performance of buildings
	Engineering activities and related technical consultancy dedicated to climate change adaptation
Financial and insurance activities	Non-life insurance: underwriting of climate-related perils
	Reinsurance
Education	Education
Human health and social work activities	Residential care activities
Arts, entertainment and recreation	Creative, arts and entertainment activities
	Libraries, archives, museums and cultural activities
	Motion picture, video and television programme production, sound recording and music publishing activities

(Source: European Commission, 2021)

The above sectors and activities are included in the EU taxonomy only for climate change adaptation and mitigation, with an indication that these activities also contribute to the other objectives by saying that specific activities do no significant harm (DNSH). While all sectors and activities for both the adaptation and mitigation objectives are included in Table 29, the taxonomy lists some activities which are implemented for only one of these objectives (see Table 30 and Table 31).

Table 30: Activities only for climate change mitigation

Sector	Activity
Information and communication	Data-driven solutions for GHG emission reductions
Professional, scientific and technical activities	R&D and innovation for direct air capture of CO2
	Professional services related to the energy performance of buildings

(Source: European Commission, 2021)

Table 31: Activities only for climate change adaptation

Sector	Activity
Information and communication	Computer programming, consultancy and related activities
	Programming and broadcasting activities
Professional, scientific and technical activities	Engineering activities and related technical consultancy dedicated to climate change adaptation
Financial and insurance activities	Non-life insurance: underwriting of climate-related perils
	Reinsurance
Education	Education
Human health and social work activities	Residential care activities
Arts, entertainment and recreation	Creative, arts and entertainment activities
	Libraries, archives, museums and cultural activities
	Motion picture, video and television programme production, sound recording and music publishing activities

(Source: European Commission, 2021)

ANNEX III

Specific questionnaires for stakeholder consultations

Table 32: Specific questionnaires for stakeholder consultations

Evaluation	Stakeholders
Regulation	<ol style="list-style-type: none"> 1. Reminder of the context of the study and its objective. 2. What incentives are currently in place (or planned) for green finance in general and for SMEs and start-ups in particular? 3. What regulations are in place to support this type of financing? 4. Do you have any studies on the financing potential of SMEs and start-ups in terms of green projects? 5. Where regulations are in place (e.g. green bonds), what are the barriers to a more substantial adoption of these tools? 6. What estimates have you made of market needs/residual demand, prior to the introduction of the regulations?
Supply	<ol style="list-style-type: none"> 1. Reminder of the context of the study and its objective. 2. What financial products does your institution offer? 3. Would you be able to share any studies carried out prior to the introduction of these products? 4. What is your green financing policy for SMEs (e.g. eligibility criteria, financing modalities, priority sectors, risk management, required profitability...)? 5. What sectors do you finance? And what products do you offer to Moroccan SMEs, especially those working in the green economy? 6. What is your assessment of the national regulation governing the financing of SMEs in the green economy? 7. What is your institution's strategy for scaling-up your funding proposals? 8. In your opinion, what are the lessons learned from the implementation of the above products? Limitations of the products? Challenges? Nature of the projects financed? Which SME profiles are interested/eligible for equity or quasi-equity financing? Number of applications for funding received with amounts requested? Number of SMEs/start-ups funded? Amounts of funding granted? 9. What would be your conditions for investing in an equity and quasi-equity financing vehicle for green projects of SMEs and start-ups? And what are your recommendations for setting up such a vehicle?
Demand	<ol style="list-style-type: none"> 1. Reminder of the context of the study and its objective. 2. Do you have a mapping of SMEs in Morocco generally, and those working in the green economy in particular, with figures on their financing needs?
National political and economic context	<ol style="list-style-type: none"> 3. What is your assessment of the financing offer available in Morocco and internationally for green economy SMEs? 4. Do you have data on the positioning of SMEs in the value chains of the different sectors of the NDC? (For MEF: more precision on the target sectors, preferences/exclusions to consider?) 5. What kind of financing needs do your members operating in green economy value chains face? To what extent are they covered by the current mainstream/green supply?

(Source: the authors, based on stakeholder consultations for this study, 2022)

ANNEX IV

Detailed scores for Morocco in each green growth indicator

Table 33: Detailed scores for Morocco in each green growth indicator, 2019

Variable		Unit		
Environmental and resource productivity	CO2 productivity	Production-based CO2 productivity, GDP per unit of energy-related CO2 emissions	USD per kilogram (kg) (2015)	4.18
		Production-based CO2 intensity, energy-related CO2 per capita	Tonnes (t)	1.81
		Production-based CO2 emissions, index 2000=100	Index, 2000=100	223.01
		Production-based CO2 emissions	Million t	65.90
		Demand-based CO2 productivity, GDP per unit of energy-related CO2 emissions	USD/kg (2015)	3.84
		Demand-based CO2 intensity, energy-related CO2 per capita	t	1.94
		Demand-based CO2 emissions, index 2000=100		206.81
		Demand-based CO2 emissions	Million t	70.05
		CO2 intensity of GDP, CO2 emissions per unit of GDP		0.24
		CO2 emissions from air transport per capita	t	55.54
		CO2 emissions from air transport per unit of GDP	kg (2015)	7.35
		Energy productivity	Energy productivity, GDP per unit of total primary energy supply (TPES)	USD (2015)
	Energy intensity, TPES per capita		Tonnes of oil equivalent (toe)	0.61
	TPES, index 2000=100		Index, 2000=100	201.96
	TPES		Million toe	22.25
	RE supply, % total energy supply		%	9.42
	Renewable electricity, % total electricity generation		%	18.28
	Energy consumption in agriculture, % total energy consumption		%	7.55
	Energy consumption in services, % total energy consumption		%	7.95
	Energy consumption in industry, % total energy consumption		%	19.20
	Energy consumption in transport, % total energy consumption		%	37.07
	Energy consumption in other sectors, % total energy consumption		%	28.23
	RE supply (excluding solid biofuels), % total energy supply	%	3.85	

Variable		Unit			
	Non-energy material productivity	Non-energy material productivity, GDP per unit of domestic material consumption (DMC)	USD/kg (2015)	1.20	
		Biomass, % of DMC	%	37.56	
		Non-metallic minerals, % of DMC	%	60.57	
		Metals, % of DMC	%	1.88	
Natural asset base	Freshwater resources	Permanent surface water, % total surface	%	0.17	
		Seasonal surface water, % total surface	%	0.09	
		Conversion of permanent water to not-water surface, % permanent water since 1984	%	1.99	
		Conversion of permanent to seasonal water surface, % permanent water since 1984	%	4.65	
		Conversion of not-water to permanent water surface, % permanent water since 1984	%	131.56	
		Conversion of seasonal to permanent water surface, % permanent water since 1984	%	8.97	
	Land resources	Natural and semi-natural vegetated land, % total	%	32.15	
		Bare land, % total	%	44.53	
		Cropland, % total	%	22.60	
		Artificial surfaces, % total	%	0.53	
		Water, % total	%	0.19	
		Loss of natural and semi-natural vegetated land, % since 1992	% (1992)	5.24	
		Loss of natural and semi-natural vegetated land, % since 2004	% (2004)	2.39	
		Gain of natural and semi-natural vegetated land, % since 1992	% (1992)	12.47	
		Gain of natural and semi-natural vegetated land, % since 2004	% (2004)	5.28	
		Conversion from natural and semi-natural land to cropland, % since 1992	% (1992)	4.01	
		Conversion from natural and semi-natural land to artificial surfaces, % since 1992	% (1992)	0.17	
		Conversion from cropland to artificial surfaces, % since 1992	% (1992)	0.70	
		Built-up area, % total land	%	0.24	
		Built-up area per capita	Square metres	34.85	
		New built-up area, % since 1990	%	35.55	
		Forest resources	Forest resource stocks	Million cubic metres (m ³)	153.41
			Forests with long-term management plans, % total forest area	%	60.95
			Naturally regenerating forests, % total forest area	%	88.94
	Intact forest landscape, square kilometres (km ²)		km ²	0.00	

Variable			Unit	
	Atmosphere and climate	Annual surface temperature, change since 1951–1980	Number	1.58
Environmental dimension of quality of life	Exposure to environmental risks	Mean population exposure to particulate matter (PM) concentrations of PM2.5	Micrograms (mcg)/m ³	34.99
		Percentage of population exposed to more than 10 mcg/m ³	%	100.00
		Percentage of population exposed to more than 35 mcg/m ³	%	48.68
		Mortality from exposure to ambient PM2.5	Per 1,000,000 inhabitants	742.25
		Welfare costs of premature mortalities from exposure to ambient PM2.5, GDP equivalent	%	8.62
		Mortality from exposure to ambient ozone	Per 1,000,000 inhabitants	18.25
		Welfare costs of premature deaths from exposure to ambient ozone, GDP equivalent	%	0.21
		Mortality from exposure to lead	Per 1,000,000 inhabitants	151.19
		Welfare costs of premature deaths from exposure to lead, GDP equivalent	%	1.76
		Mortality from exposure to residential radon	Per 1,000,000 inhabitants	8.64
		Welfare costs of premature mortalities from exposure to residential radon, GDP equivalent	%	0.10
	Access to drinking water and sewage treatment	Population with access to improved drinking water sources, % total population	%	78.00
		Population with access to improved sanitation, % total population	%	39.00
Economic opportunities and policy responses	Technology and innovation: Patents Environmental taxes and transfers	Development of environment-related technologies, % all technologies	%	25.63
		Relative advantage in environment-related technology	Ratio	1:10
		Development of environment-related technologies, % inventions worldwide	%	0.02
		Development of environment-related technologies, inventions per capita	Number	0.24
		Environmentally related taxes, % GDP	%	0.27
		Environmentally related taxes, % total tax revenue	%	0.94
		Energy related tax revenue, % total environmental tax revenue	%	30.24
		Road transport-related tax revenue, % total environmental tax revenue	%	94.00
		Diesel end-user price, USD per litre (l)	USD/l (2015)	2.13
		Petrol end-user price, USD/l	USD/l (2015)	2.53
		Residential electricity price, USD per kilowatt-hour (kWh)	USD (2015)	0.26
		Industry electricity price, USD/kWh	USD (2015)	0.26

Variable		Unit		
Socio-economic context		Mean feed-in tariff for solar PV electricity generation	USD	0.00
		Mean feed-in tariff for wind electricity generation	USD	0.00
	Economic context	Real GDP, Index 2000=100	Index, 2000=100	214.49
		Real GDP		275,663.20
		Value added in agriculture, % of total value added	%	13.73
		Value added in industry, % of total value added	%	28.63
		Value added in services, % of total value added	%	57.64
		Labour tax revenue, % GDP	%	10.05
		Labour tax revenue, % total tax revenue	%	35.46
		Real GDP per capita	USD (2015)	7,558.26
		Nominal exchange rate		9.62
		Purchasing power parity		3.96
		GDP deflator		104.64
		Social context	Population	Per 1,000 inhabitants
	Population, ages 0–14, % total		%	26.95
	Population, ages 15–64, % total		%	65.68
	Population, ages 65 and above, % total		%	7.37
	Women, % total population		%	50.39
	Total fertility rate, children per woman		Children	2.37
Life expectancy at birth	Years		76.77	
	Net migration	Per 1,000 inhabitants	-234.26	
	Population density, inhabitants per km ²	Inhabitants	81.67	

(Source: data extracted on 13 Jun 2022, 13.15 UTC [GMT] from OECD.Stat)⁶⁷

⁶⁷ OECD Stat. n.d. Green Growth Indicators. data extracted on 13 Jun 2022, 13.15 UTC [GMT]. https://stats.oecd.org/Index.aspx?DataSetCode=GREEN_GROWTH

ANNEX V

National accounts results for the year 2021

Table 34: Value added in volume by sector of activity (previous year's prices)

Code	Sector of activity	Annual change in %		
		2019	2020	2021
A00	Agriculture and forestry	-5.0	-8.1	17.8
A05	Fisheries and aquaculture	13.8	12.2	12.7
B00	Extraction	2.3	2.6	0.9
C00	Manufacturing industries	3.4	-7.4	6.1
DE0	Electricity and gas supply; water supply, sewerage and waste treatment	14.7	-1.3	6.5
F00	Construction	0.5	-4.1	10.7
G00	Wholesale and retail trade; repair of motor vehicles and motorbikes	2.1	-6.6	7.9
H00	Transport and storage	5.5	-28.5	15.2
I00	Accommodation and catering activities	3.6	-54.6	31.6
J00	Information and communication	2.5	5.1	-0.8
K00	Financial and insurance activities	5.3	0.6	4.6
L68	Real estate activities	1.8	-0.8	3.0
MN0	Research and development and business services	8.3	-13.4	10.0
O84	Public administration; compulsory social security	6.6	5.3	4.1
PQ8	Education, human health and social work activities	2.0	0.8	3.0
RS0	Other services	0.2	-23.2	2.4
	Total	3.0	-7.0	7.8

(Source: Haut-Commissariat au Plan, Situation économique nationale en 2021)

Table 35: Evolution of the main aggregates

Operations	2019	2020	2021
Decomposition of GDP			
	Annual growth in % (at previous year's prices)		
GDP	2.9	-7.2	7.9
Total value added at basic prices	3.0	-7.0	7.8
Agriculture	-5.0	-8.1	17.8
Non-agricultural	4.0	-6.9	6.6
Taxes on income net of grants	2.3	-8.4	8.8
Non-agricultural GDP (*)	3.8	-7.1	6.8

Operations	2019	2020	2021
Application			
Household final consumption expenditure	2.2	-5.6	8.2
General government final consumption expenditure	4.8	-0.5	5.6
Final consumption expenditure of non-profit institutions (NPIs)	0.9	-6.1	6.5
Gross fixed capital formation	1.7	-10.0	9.3
Imports of goods and services	2.1	-11.9	11.8
Exports of goods and services	5.1	-15.0	8.7
Decomposition of GDP			
At current prices (in MAD millions)			
GDP	1,239,836	1,152,419	1,284,154
Total value added at basic prices	1,110,527	1,036,107	1,151,523
Agriculture	127,851	117,094	145,272
Non-agricultural	982,676	919,013	1,006,251
Taxes on income net of grants	129,309	116,312	132,631
Non-agricultural GDP	1,111,985	1,035,325	1,138,882
Application			
Household final consumption expenditure	723,177	672,430	754,704
General government final consumption expenditure	225,389	223,756	238,486
Final consumption expenditure of NPIs	8,799	8,204	8,876
Gross fixed capital formation	337,145	302,245	346,877
Imports of goods and services	519,554	438,514	539,602
Exports of goods and services	422,698	354,895	422,893
Gross National Disposable Income	1,294,274	1,222,601	1,371,715
Gross national savings	336,909	318,211	369,649
Financing requirement	42,418	13,434	29,148
Selected economic ratios			
GDP per capita (in MAD)	34,840	32,055	35,363
GNI per capita (in MAD)	36,370	34,007	37,775
Household final consumption expenditure/GDP	58.3	58.3	58.8
Utilities final consumption expenditure/GDP	18.2	19.4	18.6
Final consumption expenditure of NPIs/GDP	0.7	0.7	0.7
Exports of goods and services/GDP	34.1	30.8	32.9
Imports of goods and services/GDP	41.9	38.1	42.0
Investment rate (gross fixed capital formation/GDP)	30.6	28.8	31.1
National savings rate (Gross national savings/GDP)	27.2	27.6	28.8
Financing requirement/GDP	-3.4	-1.2	-2.3

(Source: Haut-Commissariat au Plan, Situation économique nationale en 2021)

ANNEX VI

Opportunities presented to SMEs under the NDC

Mitigation component

Investment perspective: as illustrated in Figure 30, 98% of the actions in the mitigation component of the NDC are investments, equivalent to USD 27.7 billion between 2022 and 2030.

Figure 30: Share of investment actions in the mitigation component of the updated Moroccan nationally determined contribution



(Source: the authors, based on analysis of Morocco's updated NDC, 2022)

From a donor perspective: as illustrated in Figure 31, 71% of investment actions in the NDC mitigation component come from public procurement, equivalent to USD 19.6 billion of USD 27.7 billion between 2022 and 2030. The remaining 29% of NDC mitigation investment actions come from private ordering, equivalent to USD 8 billion over the same period.

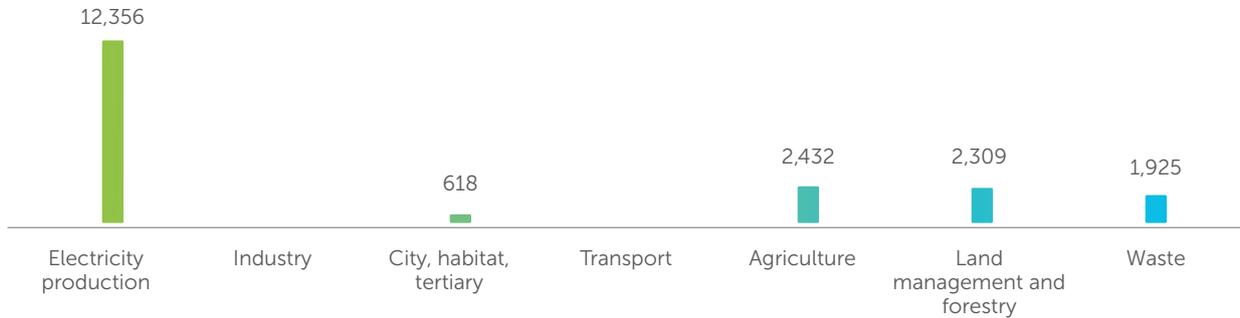
Figure 31: Shares of public and private donors in the implementation of mitigation investment actions in Morocco's updated nationally determined contribution



(Source: the authors, based on analysis of Morocco's updated NDC, 2022)

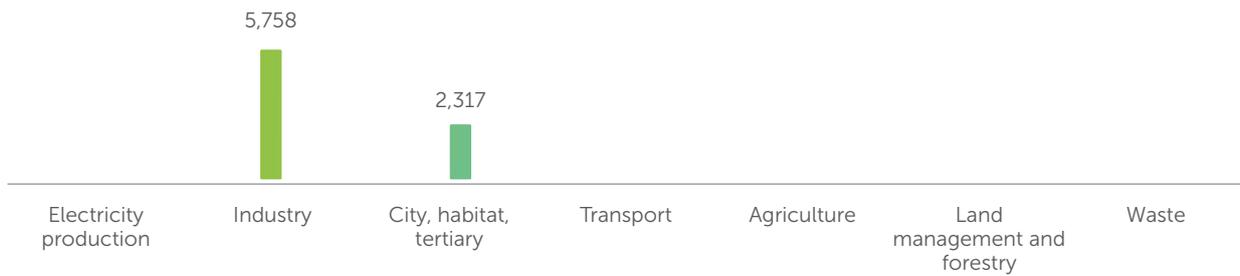
From a donor perspective by sector: Figure 32 shows the distribution of USD 19.6 billion of investment actions implemented via public procurement by sector, while Figure 33 shows the distribution of USD 8 billion of investment actions implemented via private procurement by sector.

Figure 32: Volume of investment actions implemented through public procurement in the mitigation component of the updated Moroccan nationally determined contribution



(Source: the authors, based on analysis of Morocco's updated NDC, 2022)

Figure 33: Volume of investment actions implemented through private ordering in the mitigation component of Morocco's updated nationally determined contribution



(Source: the authors, based on analysis of Morocco's updated NDC, 2022)

Implementation of NDC investment actions by SMEs and LEs: Figure 34 shows that 40% of NDC investment actions (i.e. USD 11.1 billion) would be implemented by SMEs and 60% of actions (i.e. USD 16.6 billion) would be implemented by LEs.

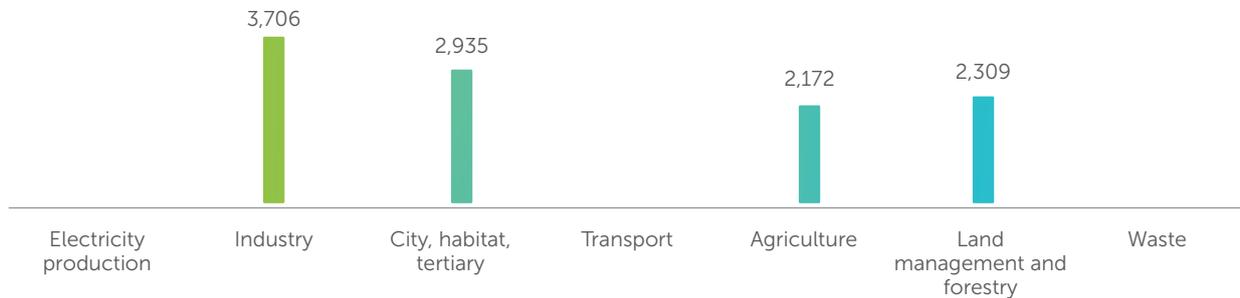
Figure 34: Implementation of investment actions in the mitigation component of the updated Moroccan nationally determined contribution by type of enterprise



(Source: the authors, based on analysis of Morocco's updated NDC, 2022)

Figure 35 shows the distribution of the USD 11.1 billion executed via SMEs by sector, while Figure 36 shows the distribution of the USD 16.6 billion executed via LEs by sector.

Figure 35: Volume of investment actions by small and medium-sized enterprises in the mitigation component of Morocco's updated nationally determined contributions



(Source: the authors, based on analysis of Morocco's updated NDC, 2022)

Figure 36: Volume of investment actions performed by large enterprises in the mitigation section of Morocco's updated nationally determined contribution



(Source: the authors, based on analysis of Morocco's updated NDC, 2022)

Adaptation component

The same analysis was carried out for the adaptation component. However, the latter does not present monetary estimates, providing instead only a number of actions (the costs of adaptation actions have not been estimated in the majority of Morocco's revised NDC).

Investment point of view: as illustrated in Figure 37, 55% of the actions of the adaptation component of the NDC are investments, equivalent to 27 of 49 actions between 2022 and 2030.⁶⁸

Figure 37: Share of investment actions in the adaptation component of Morocco's actualised nationally determined contribution



(Source: the authors, based on analysis of Morocco's updated NDC, 2022)

⁶⁸ With the exception of the water sector, which presents actions for three different time horizons: 2030, 2040 and 2050.

From a client perspective: as illustrated in Figure 38, 81% of NDC adaptation investment actions come from public procurement, equivalent to 22 of 27 actions between 2022 and 2030a, while only 4% of investment actions in the adaptation component come from private ordering, equivalent to 1 action in this same period.

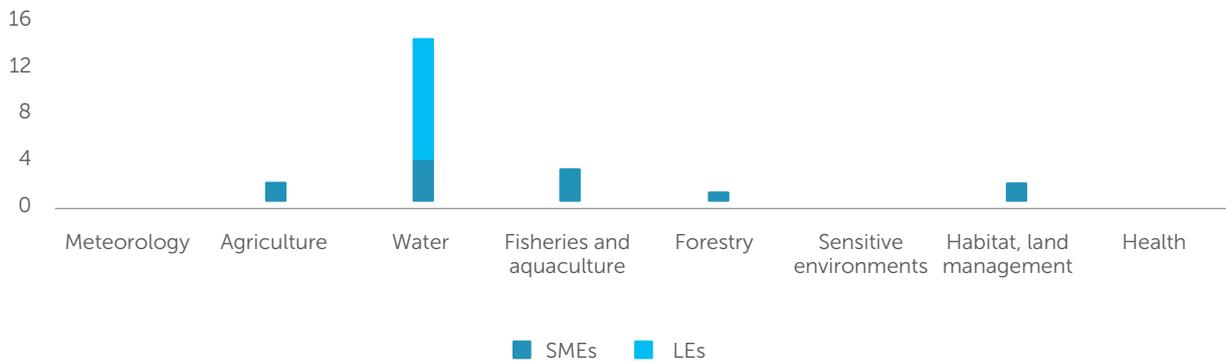
Figure 38: Share of public and private donors in the investment actions of the adaptation component of the updated Moroccan nationally determined contribution



(Source: the authors, based on analysis of Morocco's updated NDC, 2022)

Implementation of NDC investment actions by SMEs and LEs: Figure 39 shows that 12 of the NDC adaptation investment actions from public procurement would be implemented by SMEs, while 10 actions would be implemented by LEs.

Figure 39: Distribution of investment actions of the adaptation component of the nationally determined contribution implemented through public order by sector and type of enterprise



(Source: the authors, based on analysis of Morocco's updated NDC, 2022)

The remaining action from private commissioning would be implemented by SMEs.

ANNEX VII

Application of demand assessment methodology steps

Table 36: Methodology for SME green finance demand assessment: Step 1

Sector	Elements defining the potential for greening		Binary evaluation
<ul style="list-style-type: none"> Administrative and support service activities. Activities of households as employers; undifferentiated activities of households as producers of goods and services for own use. Extra-territorial activities. Financial and insurance activities. Real estate activities. Specialised, scientific and technical activities. Public administration. Agriculture, forestry and fisheries. Arts, entertainment and recreation. Other service activities. Trade; repair of motor vehicles and motorbikes. Construction. Teaching. Accommodation and catering. Manufacturing industry. Extractive industries. Information and communication. Water production and distribution; sanitation, waste management and remediation. Production and distribution of electricity, gas, steam and air conditioning. Human health and social work. Transport and storage. 	<p>Matching with the EU green taxonomy</p>	<p>Climate change mitigation Climate change adaptation Clearance. Water management. Circular economy. Biodiversity.</p>	<p>If the sector meets one or more elements of the European green taxonomy, a score of 1/1 is awarded.</p> <p>Otherwise, 0/1.</p>
	<p>Activities to be targeted</p>	<p>Identified/not identified</p>	<p>If one or more green activities to be implemented have been identified, a score of 1/1 is awarded.</p> <p>Otherwise, 0/1.</p>
	<p>Targeted green component</p>	<p>Identified/not identified</p>	<p>If one or more specific green technical components to be targeted within the predetermined green activities have been identified, a score of 1/1 is awarded.</p> <p>Otherwise, 0/1.</p>
	<p>NDC sector</p>	<ul style="list-style-type: none"> Electricity generation. Industry (excluding cement and phosphate). City, housing and services. Transport. Waste. Agriculture. Land management and forestry. Meteorology. Water. Fisheries and aquaculture. Housing, technical assistance and urban planning. Health. Sensitive areas: mountains, coasts and oases. 	<p>If the sector fits into one or more NDC sectors, a score of 1/1 is awarded.</p> <p>Otherwise, 0/1.</p>

Sector	Elements defining the potential for greening	Binary evaluation
	CBAM sector	If the sector fits into one or more CBAM sectors, a score of 1/1 is awarded. Otherwise, 0/1.
	Objective of the NSDS's State Exemplarity Pact	If sector <i>f</i> meets one or more of the objectives of the Pact, issued in the implementation of the NSDS, a score of 1/1 is awarded. Otherwise, 0/1.

Table 37: Application of Step 1 of the analysis to assess the greening potential of economic sectors

Sector	Matching with the EU green taxonomy	Activities to be targeted	Targeted green component	NDC sector	CBAM sector	Objective of the NSDS Pact	Score
Administrative and support service activities			<ul style="list-style-type: none"> • EE • RE • Water saving in administrative buildings 				1
Activities of households as employers; undifferentiated activities of households as producers of goods and services for own use							0
Extra-territorial activities							0
Financial and insurance activities							0
Real estate activities							0
Specialised, scientific and technical activities			EE in buildings				1
Public administration			<ul style="list-style-type: none"> • EE and RE in buildings • Water saving • Waste management and recovery 			<ul style="list-style-type: none"> • Objective 1: to generalise environmental approaches within public buildings. • Objective 2: to include public administrations in the logic of waste management and recovery. • Objective 5: to promote sustainable and responsible public procurement. • Objective 6: to develop the exemplary role of public players in terms of sustainable mobility. 	2

Sector	Matching with the EU green taxonomy	Activities to be targeted	Targeted green component	NDC sector	CBAM sector	Objective of the NSDS Pact	Score
Agriculture, forestry and fisheries	<ul style="list-style-type: none"> • Reforestation and rehabilitation and restoration of forests, including reforestation and natural regeneration of forests after an extreme event • Forest management • Conservation forestry • Wetland restoration • Biodiversity • Water 	<ul style="list-style-type: none"> • Solar pumping • Precision agriculture • Drip irrigation • Semi-direct • Improved seed • Integrated pest management • Agroforestry 	<ul style="list-style-type: none"> • EE of buildings • RE • Technologies: smart agriculture; water saving, resilient crops, etc. • Reforestation and Mediterranean Action Plan (MAP) activities • CO2 sequestration techniques 	<ul style="list-style-type: none"> • Agriculture • Land management and forestry • Fisheries and aquaculture • Sensitive areas 			4
Arts, entertainment and recreation			<ul style="list-style-type: none"> • EE and RE in buildings • Water saving • Waste management and recovery 				1
Other service activities							0
Trade: repair of motor vehicles and motorbikes	<ul style="list-style-type: none"> • Recovery of materials from non-hazardous waste 	<ul style="list-style-type: none"> • Promoting solar air conditioning • Waste management and recovery 	<ul style="list-style-type: none"> • Soft mobility • Electric mobility • Electrification of public transport • EE and RE in buildings 				3
Construction	<ul style="list-style-type: none"> • Installation, maintenance and repair of EE equipment • Installation, maintenance and repair of electric vehicle charging points in buildings and parking spaces adjacent to buildings • Installation, maintenance and repair of instruments and devices for measuring, regulating and controlling the energy performance of buildings 		<ul style="list-style-type: none"> • EE and RE in buildings • Water saving • Waste management and recovery 	City, housing and services			3

Sector	Matching with the EU green taxonomy	Activities to be targeted	Targeted green component	NDC sector	CBAM sector	Objective of the NSDS Pact	Score
Teaching	<ul style="list-style-type: none"> Installation, maintenance and repair of RE technologies Acquisition and ownership of buildings 		<ul style="list-style-type: none"> EE and RE in buildings Water saving Waste management and recovery 				1
Accommodation and catering			<ul style="list-style-type: none"> Air conditioning and heating Water saving Solar water heaters EE and RE in buildings 	<ul style="list-style-type: none"> City, housing and services 			2
Manufacturing industry	<ul style="list-style-type: none"> Production of RE technologies Manufacture of equipment for the production and use of hydrogen Manufacture of low-carbon transport technologies Manufacture of batteries Manufacture of EE equipment for buildings Manufacture of other low-carbon technologies Manufacture of cement Manufacture of aluminium Manufacture of iron and steel Manufacture of hydrogen Manufacture of carbon black Manufacture of soda ash Manufacture of chlorine Primary plastics manufacturing 	<ul style="list-style-type: none"> Promoting solar air conditioning and solar cooling/cold rooms for fruit and vegetable preservation Solar-powered cold rooms for fish preservation Accelerating small-scale smart farming, hydroponics and urban vertical farming Transforming industrial parks/economic zones into eco-industrial parks 	<ul style="list-style-type: none"> Self-generation of energy from renewable sources and cogeneration Efficient cooling technologies Sustainable resource and water management Waste management/circular economy 	<ul style="list-style-type: none"> Industry (excluding phosphate and cement) Phosphate industry Cement industry 	<ul style="list-style-type: none"> Cement Steel Fertiliser 		5

Sector	Matching with the EU green taxonomy	Activities to be targeted	Targeted green component	NDC sector	CBAM sector	Objective of the NSDS Pact	Score
Extractive industries			<ul style="list-style-type: none"> • EE of buildings and processes • RE • CO2 sequestration • Wastewater recycling 		Iron Steel/ aluminium		3
Information and communication			<ul style="list-style-type: none"> • EE and RE in buildings • Water saving • Waste management and recovery 				1
Water production and distribution; sanitation, waste management and remediation	<ul style="list-style-type: none"> • Production of RE technologies • Manufacture of equipment for the production and use of hydrogen • Manufacture of low-carbon technologies for transport 		<ul style="list-style-type: none"> • Water saving • Waste management and recovery 	Waste		<ul style="list-style-type: none"> • Objective 2: to include public administrations in the logic of waste management and recovery 	4
Production and distribution of electricity, gas, steam and air conditioning	<ul style="list-style-type: none"> • Electricity generation using solar PV technology • Electricity generation using CSP technology • Electricity generation from wind power • Power generation from ocean energy technologies • Electricity generation from hydropower • Electricity generation from geothermal energy • Electricity generation from gaseous and liquid non-fossil renewable fuels • Power generation from bioenergy • Electricity transmission and distribution • Electricity storage • Storage of thermal energy 	<ul style="list-style-type: none"> • RE supply • Promoting solar air conditioning 	<ul style="list-style-type: none"> • RE and EE in buildings • Biogas • Biofuel • Green hydrogen 	Electricity generation	Electricity		5

Sector	Matching with the EU green taxonomy	Activities to be targeted	Targeted green component	NDC sector	CBAM sector	Objective of the NSDS Pact	Score
Human health and social work	<ul style="list-style-type: none"> Hydrogen storage Production of biogas and biofuels for transport and biofuels Renewable and low-carbon gas transmission and distribution networks District heating/cooling distribution Installation and operation of electric heat pumps Cogeneration of heat/cooling and electricity from solar energy Cogeneration of heat/cooling and electricity from geothermal energy Cogeneration of heat/cooling and electricity from gaseous and liquid non-fossil renewable fuels. Cogeneration of heat/cooling and electricity from bioenergy Heat/cold generation from solar thermal energy Heat/cold production from geothermal energy Heat/cold production from gaseous and liquid non-fossil renewable fuels Heat/cold production from bioenergy Heat/cold generation from waste heat 						3
			<ul style="list-style-type: none"> EE RE Water saving Waste recycling in health administration buildings Electric mobility for staff public transport Staff cars 	<ul style="list-style-type: none"> Health 		<ul style="list-style-type: none"> Objective 1: to generalise environmental approaches within public buildings. Objective 2: to include public administrations in the logic of waste management and recovery/ 	

Sector	Matching with the EU green taxonomy	Activities to be targeted	Targeted green component	NDC sector	CBAM sector	Objective of the NSDS Pact	Score
Transport and storage	<ul style="list-style-type: none"> • Intercity passenger rail transport • Rail freight transport • Urban, suburban and road passenger transport • Operation of personal mobility devices and cycle logistics • Transport by motorbikes, passenger cars and light commercial vehicles • Road freight transport services • Inland waterway passenger transport • Inland waterway freight transport • Renovation of inland waterway passenger and freight transport • Maritime and coastal freight transport, vessels for port operations and auxiliary activities • Maritime and coastal passenger transport by water • Reorganisation of maritime and coastal freight and passenger transport • Infrastructure for personal mobility and cycle logistics • Infrastructure for rail transport • Infrastructure for low-carbon road and public transport • Infrastructure for low-carbon shipping • Low-carbon airport infrastructure 		<ul style="list-style-type: none"> • Retrofit • Sustainable transport 	<ul style="list-style-type: none"> • Transport 	<ul style="list-style-type: none"> • Intrinsic to all CBAM sectors 	<ul style="list-style-type: none"> • Objective 6: to develop the exemplary role of public players in terms of sustainable mobility. • Sustainable transport of public administration. • Objective 6: to develop the exemplary role of public actors in the field of sustainable mobility. 	5

Table 38: Application of Step 2 of the analysis to assess the greening potential of economic sectors

Sector selected in Step 1	Subsector	Economic activity	Number of companies	Minimum number of enterprises (chosen threshold)	
Agriculture, forestry and fisheries	Crop and animal production, hunting and related services	Support activities for agriculture and primary crop processing	564	1,000	
		Hunting, trapping and related services	6		
		Combined crop and livestock farming	448		
		Non-permanent crops	2,803		
		Permanent crops	2,689		
		Plant propagation	157		
		Animal production	1,196		
		Aquaculture	28		
		Fishing	14,522		
		Logging	68		
Forestry and logging	Forestry and logging	Harvesting of wild growing non-timber forest products	2		
		Forestry support services	29		
		Other retail sale in specialised shops	36,219		
Trade; repair of motor vehicles and motorbikes	Retail trade, except for motor vehicles and motorbikes	Retail sale of food in specialised shops	12,363		
		Retail sale of other household equipment in specialised shops	11,956		
		Retail sale of information and communication equipment in specialised shops	1,990		
		Retail sale of cultural and recreational goods in specialised shops	4,029		
		Retail sale of motor fuels in specialised shops	2,415		
		Retail sale in non-specialised shops	18,754		
		Retail trade not in shops, stalls or markets	254		
		Retail trade on stalls and markets	213		

Sector selected in Step 1	Subsector	Economic activity	Number of companies	Minimum number of enterprises (chosen threshold)
	Wholesale trade, except for motor vehicles and motorbikes	Other specialised wholesale	5,954	
		Wholesale of other industrial equipment	3,853	
		Wholesale of information and communication equipment	2,057	
		Wholesale of household goods	5,245	
		Wholesale of raw agricultural products and live animals	1,325	
		Wholesale of food, beverages and tobacco	6,362	
		Non-specialised wholesale trade	7,123	
		Intermediaries in wholesale trade	42,555	
		Trade in automotive equipment	5,546	
		Motor vehicle trade	794	
	Trade and repair of motor vehicles and motorbikes	Trade and repair of motorbikes	1,818	
		Maintenance and repair of motor vehicles	5,222	
		Construction of residential and non-residential buildings	4,020	4,000
		Real estate development	21,291	
		Construction of other civil engineering works	105	
	Civil engineering	Construction of networks and lines	726	
		Road and rail construction	15	
		Other specialised construction work	38,440	
		Demolition and site preparation	30	
		Electrical, plumbing and other installation work	8,405	
	Other manufacturing industries	Finishing work	7,014	
		Manufacturing n.e.c.	376	100
Manufacturing industry				

Sector selected in Step 1	Subsector	Economic activity	Number of companies	Minimum number of enterprises (chosen threshold)
		Manufacture of sporting goods	40	
		Musical instrument making	7	
		Manufacture of medical and dental instruments and supplies	1,186	
		Manufacture of jewellery and related articles	796	
		Manufacture of games and toys	18	
	Coking and refining	Coking	8	100
		Oil refining	88	
	Manufacture of other transport equipment	Aeronautical and space construction	4	100
		Construction of locomotives and other railway rolling stock	6	
		Shipbuilding	62	
Manufacture of transport equipment n.e.c.		76		
Manufacture of other non-metallic mineral products	Manufacture of other ceramic and porcelain products	5	100	
	Manufacture of concrete, cement and plaster products	301		
	Manufacture of cement, lime and plaster	260		
	Manufacture of clay building materials	596		
	Manufacture of abrasive products and non-metallic mineral products n.e.c.	33		
	Manufacture of refractory products	84		
	Manufacture of glass and glassware	108		
	Stone cutting, shaping and finishing	428		
	Manufacture of electrical equipment	Manufacture of electric lighting equipment	4	100
		Manufacture of household appliances	22	
Manufacture of other electrical equipment		191		
Manufacture of wire and cable and electrical installation equipment		204		

Sector selected in Step 1	Subsector	Economic activity	Number of companies	Minimum number of enterprises (chosen threshold)
		Manufacture of electric motors, generators, transformers and electrical distribution and control equipment	164	
		Manufacture of batteries and electric accumulators	10	
	Manufacture of beverages	Manufacture of beverages	150	100
	Manufacture of machinery and equipment n.e.c.	Manufacture of other general purpose machinery	110	100
		Manufacture of other special purpose machinery	297	
		Manufacture of agricultural and forestry machinery	16	
		Manufacture of general purpose machinery	22	
	Furniture manufacture	Furniture manufacture	757	100
	Manufacture of tobacco products	Manufacture of tobacco products	7	
	Manufacture of rubber and plastic products	Manufacture of plastic products	331	100
		Manufacture of rubber products	224	
	Manufacture of computer, electronic and optical products	Manufacture of medical irradiation equipment, electromedical and electrotherapeutic equipment	2	100
		Manufacture of communication equipment	89	
		Manufacture of measuring, testing and navigational instruments and apparatus; watchmaking	81	
		Manufacture of computers and peripheral equipment	8	
		Manufacture of electronic components and boards	12	
		Manufacture of optical and photographic equipment	79	
		Manufacture of consumer electronics	119	
		Manufacture of magnetic and optical media	3	
		Manufacture of arms and ammunition	3	500
		Manufacture of other fabricated metal products	543	

Sector selected in Step 1	Subsector	Economic activity	Number of companies	Minimum number of enterprises (chosen threshold)
	Textile manufacturing	Manufacture of metal components for the construction industry	1,636	500
		Manufacture of cutlery, tools and hardware	115	
		Manufacture of metal tanks, reservoirs and containers	102	
		Forging, pressing, stamping; powder metallurgy	83	
		Metal treatment and coating; machining	1,605	
		Textile finishing	117	
	Printing and reproduction of records	Manufacture of other textiles	683	2,000
		Manufacture of carpets and rugs	33	
		Textile fibre preparation and spinning	525	
		Weaving	205	
Automotive industry	Printing and related services	2,324	500	
	Reproduction of recordings	2,324		
	Construction of motor vehicles	61		
Chemical industry	Manufacture of automotive equipment	102	500	
	Manufacture of bodies and trailers	137		
	Manufacture of other chemical products	613		
	Manufacture of artificial or synthetic fibres	8		
	Manufacture of pesticides and other agrochemicals	23		
	Manufacture of basic chemicals, nitrogen products and fertilisers, basic plastics and synthetic rubber	268		
	Manufacture of soaps, cleaning products and perfumes	112		
Clothing industry	Manufacture of knitted goods	88	500	
	Manufacture of fur products	1		
	Manufacture of wearing apparel, except for fur apparel	5,574		

Sector selected in Step 1	Subsector	Economic activity	Number of companies	Minimum number of enterprises (chosen threshold)
Leather and footwear industry (except leather clothing)	Leather and footwear industry (except leather clothing)	Leather dressing and tanning; preparation and dyeing of furs; manufacture of travel goods, leather goods and saddlery	461	100
		Shoe manufacturing	457	
	Paper and board industry	Manufacture of paper and paperboard products	154	100
		Manufacture of pulp, paper and paperboard	65	
	Pharmaceutical industry	Manufacture of pharmaceutical preparations	117	100
		Manufacture of basic pharmaceutical products	28	
	Food industry	Animal feed manufacturing	84	100
		Manufacture of other food products	279	
		Manufacture of vegetable and animal oils and fats	530	
		Manufacture of bakery and pastry products	3,942	
Manufacture of dairy products		537		
Processing and preservation of fruit and vegetables		356		
Processing and preservation of meat and preparation of meat products		202		
Processing and preservation of fish, crustaceans and molluscs		106		
Metallurgy	Metallurgy	Grain processing; manufacture of starch products	929	
		Manufacture of other primary steel products	10	100
	Foundry	Manufacture of steel tubes, pipes, hollow sections and related accessories	4	
		Production of precious and other non-ferrous metals	174	
	Steel industry	Steel industry	75	
		Steel industry	82	
	Repair and installation of machinery and equipment	Installation of industrial machinery and equipment	18	1,000
		Repair of fabricated metal products, machinery and equipment	1,843	

Sector selected in Step 1	Subsector	Economic activity	Number of companies	Minimum number of enterprises (chosen threshold)	
	Manufacture of wood and of products of wood and cork, except for furniture; manufacture of articles of straw and plaiting materials	Manufacture of articles of wood, cork, wickerwork and esparto work	733		
		Sawing and planing of wood	78		
Extractive industries	Other extractive industries	Mining and quarrying n.e.c.	37	100	
		Extraction of stones, sands and clays	922		
		Coal mining	2		
		Iron ore mining	659		
	Hard coal and lignite mining	Mining of non-ferrous metal ores	41		
		Support activities for hydrocarbon extraction	11		
	Metal ore mining	Support activities for other mining and quarrying	10		
		Water collection, treatment and distribution	412	100	
	Water production and distribution; sanitation, waste management and remediation	Water collection, treatment and distribution	Water collection, treatment and distribution	412	100
			Wastewater collection and treatment	16	
Collection, treatment and disposal of waste; recovery		Waste collection	15		
		Recovery	19		
Remediation and other waste management services		Treatment and disposal of waste	11		
		Remediation and other waste management services	2		
Production and distribution of electricity, gas, steam and air conditioning		Production and distribution of electricity, gas, steam and air conditioning	Production and distribution of gaseous fuels	34	100
			Steam and air conditioning production and distribution	3	
		Electricity generation, transmission and distribution	506		
Human health and social work		Social work without accommodation	Social work without accommodation for the elderly and disabled	23	100
	Other social action without accommodation		659		
	Activities for human health	Activity of doctors and dentists	14,851		
		Hospital activities	778		

Sector selected in Step 1	Subsector	Economic activity	Number of companies	Minimum number of enterprises (chosen threshold)
		Other activities for human health	2,415	
	Medical and social accommodation	Other social housing activities	248	
		Medical accommodation	9	
		Social housing for the elderly and physically disabled	6	
		Social housing for mentally handicapped, mentally ill and drug addicts	321	
	Transport and storage	Postal and courier activities	Postal activities under a universal service obligation	1
Other postal and courier activities			99	
Warehousing and auxiliary transport services		Warehousing and storage	5,421	
		Services auxiliary to transport	2,866	
Air transport		Air freight and space transport	541	
		Passenger air transport	485	
Water transport		Inland freight transport	170	
		Inland passenger transport	403	
		Maritime and coastal freight transport	1,217	
		Maritime and coastal passenger transport	115	
Land and pipeline transport		Other passenger land transport	17,676	
		Intercity passenger rail transport	32	
	Rail freight transport	67		
	Pipeline transport	118		
	Road freight transport and removal services	19,952		

(Source: the authors, 2022)

Table 39: Summary of selected sub-branches after multi-criteria analysis of greening and scaling potential

Sector selected in step 1	Subsector	Economic activity	Number of companies	Cumulative turnover in MAD million	Matching with the EU green taxonomy	Activities to be targeted	Targeted green component	NDC sectors	CBAM sector	Objective of the NDS Pact	Greening Potential Score	
Agriculture, forestry and fisheries	Crop and animal production, hunting and related services	Non-permanent crops	2.803	221,4	<ul style="list-style-type: none"> • Reforestation • Forest rehabilitation and restoration, including reforestation and natural regeneration of forests after an extreme event 	<ul style="list-style-type: none"> • Solar pumping • Precision agriculture • Drip irrigation • Semi-direct • Improved seed • Integrated pest management • Agroforestry 	<ul style="list-style-type: none"> • EE of buildings; • ER • Technologies for smart agriculture, water saving, aquaculture; • Resilient crops, etc. • Reforestation and WFP activities • CO2 sequestration techniques 	Agriculture; land management and forestry; fisheries and aquaculture; sensitive areas			4	
		Permanent crops	2.689	293,3								
		Animal production	1.196	6.891,5								
	Fisheries and aquaculture	Fishing	14.522	2.717,4	<ul style="list-style-type: none"> • Forest management • Conservation forestry • Wetland restoration • Biodiversity • Water 							
Trade: repair of motor vehicles and motorbikes	Retail trade, except for motor vehicles and motorbikes	Other retail sale in specialised shops	36.219	32.562,8	Recovery of materials from non-hazardous waste	<ul style="list-style-type: none"> • Promoting solar air conditioning • Waste management and recovery 	<ul style="list-style-type: none"> • Soft mobility • Electric mobility • Electrification of public transport • EE and RE in buildings 				3	
		Retail sale of food in specialised shops	12.363	5.438,4								
		Retail sale of other household equipment in specialised shops	11.956	12.091,3								
	Wholesale trade, except for motor vehicles and motorbikes	Retail sale of motor fuels in specialised shops	2.415	27.793,8								
		Retail sale in non-specialised shops	18.754	19.974,8								
		Other specialised wholesale	5.954	120.917,5								
		Wholesale of household goods	5.245	15.326,9								
		Wholesale of food, beverages and tobacco	6.362	28.294,1								
		Non-specialised wholesale trade	7.423	102.560,7								
		Intermediaries in wholesale trade	42.555	179.861,7								
		Trade in automotive motor vehicles and motorbikes	Trade in automotive motor vehicles and equipment	5.546	15.389,7							
		Motor vehicle trade	Motor vehicle trade	794	23.823,1							

Sector selected in step 1	Subsector	Economic activity	Number of companies	Cumulative turnover in MAD million	Matching with the EU green taxonomy	Activities to be targeted	Targeted green component	NDC sectors	CBAM sector	Objective of the NSDS Pact	Greening Potential Score
Construction	Trade and repair of motorbikes		1.818	1.092,2							3
		Maintenance and repair of motor vehicles	5.222	4.489,4							
	Building construction	Construction of residential and non-residential buildings	4.020	7.350,2	<ul style="list-style-type: none"> Construction of new buildings Renovation of existing buildings Installation, maintenance and repair of EE equipment Installation, maintenance and repair of electric vehicle charging points in buildings and parking spaces adjacent to buildings Installation, maintenance and repair of instruments and devices for measuring, regulating and controlling the energy performance of buildings Installation, maintenance and repair of RE technologies Acquisition and ownership of buildings 	<ul style="list-style-type: none"> EE and RE in buildings Water saving Waste management and recovery 	City, housing and services				
		Other specialised construction work	21.291	69.378,8	<ul style="list-style-type: none"> Installation, maintenance and repair of instruments and devices for measuring, regulating and controlling the energy performance of buildings 						
		Electrical, plumbing and other installation work	38.440	109.465,8							
Specialised construction work	Electrical, plumbing and other installation work	8.405	21.540,4								
	Finishing work	7.014	6.602,7								
Manufacturing industry	Other manufacturing industries	Manufacturing n.e.c.	376	14.435,1	<ul style="list-style-type: none"> Production of RE technologies Manufacture of equipment for the production and use of hydrogen Manufacture of low-carbon transport technologies Battery manufacturing Manufacture of EE equipment for buildings Manufacture of other low-carbon technologies Cement manufacturing Aluminium production Iron and steel manufacturing Hydrogen production Production of carbon black 	<ul style="list-style-type: none"> Promoting solar air conditioning and solar cooling/cold rooms for the preservation of fruit and vegetables Solar powered cold rooms for fish preservation Accelerating smart farming, hydroponics and urban vertical farming Transforming industrial parks/economic zones into eco-industrial parks 	<ul style="list-style-type: none"> Self-generation of energy from renewable sources and cogeneration Efficient cooling technologies Sustainable resource and water management Waste management/circular economy 	Industry (excluding phosphate and cement); phosphate industry; cement industry		5	

Sector selected in step 1	Subsector	Economic activity	Number of companies	Cumulative turnover in MAD million	Matching with the EU green taxonomy	Activities to be targeted	Targeted green component	NDC sectors	CBAM sector	Objective of the NSDS Pact	Greening Potential Score	
	Manufacture of other non-metallic mineral products	Manufacture of concrete, cement and plaster products	301	4.365,8	<ul style="list-style-type: none"> Soda ash manufacture Chlorine production Manufacture of basic organic chemicals 							
		Manufacture of cement, lime and plaster	260	13.553,8	<ul style="list-style-type: none"> Manufacture of anhydrous ammonia Manufacture of nitric acid 				Cement			
		Manufacture of clay building materials	596	4.100,1	<ul style="list-style-type: none"> Manufacture of plastics in primary form 							
		Manufacture of glass and glassware	108	1.651,9								
		Stone cutting, shaping and finishing	428	9.899								
	Manufacture of electrical equipment	Manufacture of other electrical equipment	Manufacture of other electrical equipment	191	6.575,2							
			Manufacture of wire and cable and electrical installation equipment	204	26.082,4							
			Manufacture of electric motors, generators, transformers and electrical distribution and control equipment	164	832,0							
	Manufacture of beverages	Manufacture of machinery and equipment n.e.c.	Manufacture of beverages	150	10.087,9							
			Manufacture of other general purpose machinery	110	1.559,5							
Furniture manufacture	Manufacture of rubber and plastic products	Manufacture of other special purpose machinery	297	2.623,2								
		Furniture manufacture	757	4.371,0								
		Manufacture of plastic products	331	2.904,1								

Sector selected in step 1	Subsector	Economic activity	Number of companies	Cumulative turnover in MAD million	Matching with the EU green taxonomy	Activities to be targeted	Targeted green component	NDC sectors	CBAM sector	Objective of the NSDS Pact	Greening Potential Score
		Manufacture of rubber products	224	4.151,2							
	Manufacture of computer, electronic and optical products	Manufacture of consumer electronics	119	371,9							
	Manufacture of fabricated metal products, except for machinery and equipment	Manufacture of other fabricated metal products	543	9.202,1							
		Manufacture of metal components for the construction industry	1.636	9.226,5							
		Metal treatment and coating; machining	1.605	5.083,1					Steel/ aluminium/ iron		
	Textile manufacturing	Manufacture of other textiles	683	1.555,3							
		Textile fibre preparation and spinning	525	4.948,8							
	Printing and reproduction of records	Printing and related services	2.324	6.351,6							
		Reproduction of recordings	2.324	3.518,0							
	Automotive industry	Manufacture of automotive equipment	102	6.349,1							
		Manufacture of bodies and trailers	137	2.689,6							
	Chemical industry	Manufacture of other chemical products	613	15.493,0							
		Manufacture of basic chemicals, nitrogen products and fertilisers, basic plastics and synthetic rubber	268	24.634,6					Fertiliser		

Sector selected in step 1	Subsector	Economic activity	Number of companies	Cumulative turnover in MAD million	Matching with the EU green taxonomy	Activities to be targeted	Targeted green component	NDC sectors	CBAM sector	Objective of the NSDS Pact	Greening Potential Score
	Clothing industry	Manufacture of wearing apparel, except for fur apparel	5.574	15.565,1							
	Pharmaceutical industry	Manufacture of pharmaceutical preparations	117	16.932,5							
	Food industry	Animal feed manufacturing	84	10.957,5							
		Manufacture of other food products	279	12.834,4							
		Manufacture of vegetable and animal oils and fats	530	10.940,1							
		Manufacture of bakery and pastry products	3.942	6.253,1							
		Manufacture of dairy products	537	8.361,6							
		Processing and preservation of fruit and vegetables	356	10.113,9							
		Processing and preservation of meat and preparation of meat products	202	2.640,1							
		Processing and preservation of fish, crustaceans and molluscs	106	1.025,2							
		Grain processing; manufacture of starch products	929	17.280,0							
	Metallurgy	Foundry	174	4.915,2							
	Repair and installation of machinery and equipment	Repair of fabricated metal products, machinery and equipment	1.843	5.012,5							

Sector selected in step 1	Subsector	Economic activity	Number of companies	Cumulative turnover in MAD million	Matching with the EU green taxonomy	Activities to be targeted	Targeted green component	NDC sectors	CBAM sector	Objective of the NDS Pact	Greening Potential Score
Extractive industries	Other extractive industries	Extraction of stones, sands and clays	922	5.173,2			<ul style="list-style-type: none"> EE of buildings and processes ER CO2 sequestration Wastewater recycling 				3
		Extraction of stones, sands and clays	922	5.173,2							
	Metal ore mining	Iron ore mining	659	60.626,5				Iron			
Water production and distribution; sanitation, waste management and remediation	Water collection, treatment and distribution	Water collection, treatment and distribution	412	15.643,8	<ul style="list-style-type: none"> Production of RE technologies Manufacture of equipment for the production and use of hydrogen Manufacture of low-carbon transport technologies 	<ul style="list-style-type: none"> Water saving Waste management and recovery 	<ul style="list-style-type: none"> Water saving Waste management and recovery 	Waste		Objective 2: to include public administrations in the logic of waste management and recovery.	4
	Production and distribution of electricity, gas, steam and air conditioning	Electricity generation, transmission and distribution	506	56.875,8	<ul style="list-style-type: none"> Electricity generation using solar PV or CSP technology Electricity generation from wind power Power generation from ocean energy technologies Electricity generation from hydropower Electricity generation from geothermal energy Electricity generation from gaseous and liquid non-fossil renewable fuels Power generation from bioenergy Electricity transmission and distribution Electricity storage Storage of thermal energy Hydrogen storage Production of biogas and biofuels for transport and biofuels Renewable and low-carbon gas transmission and distribution networks District heating/cooling distribution 	<ul style="list-style-type: none"> Supply of RE Promoting solar air conditioning 	<ul style="list-style-type: none"> ER EE in buildings Biogas Biofuel Green hydrogen 	Electricity generation	Electricity		5

Sector selected in step 1	Subsector	Economic activity	Number of companies	Cumulative turnover in MAD million	Matching with the EU green taxonomy	Activities to be targeted	Targeted green component	NDC sectors	CBAM sector	Objective of the NSDS Pact	Greening Potential Score	
					<ul style="list-style-type: none"> Installation and operation of electric heat pumps Cogeneration of heat/cooling and electricity from solar energy Cogeneration of heat/cooling and electricity from geothermal energy Cogeneration of heat/cooling and electricity from gaseous and liquid non-fossil renewable fuels. Cogeneration of heat/cooling and electricity from bioenergy Heat/cold generation from solar thermal energy Heat/cold production from geothermal energy Heat/cold production from gaseous and liquid non-fossil renewable fuels Heat/cold production from bioenergy Heat/cold generation from waste heat 							
Human health and social work	Social work without accommodation	Social work without accommodation for the elderly and disabled	23	0.0			<ul style="list-style-type: none"> EE RE Water saving Waste recycling in health administration buildings Electric mobility for public transport of staff Service cars for civil servants 	Health		Objective 1: to generalise environmental approaches in public buildings. Objective 2: to include public administrations in the logic of waste management and recovery. Objective 6: to develop the exemplary role of public actors in the field of sustainable mobility.	3	
	Activities for human health	Other social action without accommodation	659	308.5								
		Activity of doctors and dentists	14.851	2.337.5								
		Hospital activities	778	5.943.7								
		Other activities for human health	2.415	1.299.9								

Sector selected in step 1	Subsector	Economic activity	Number of companies	Cumulative turnover in MAD million	Matching with the EU green taxonomy	Activities to be targeted	Targeted green component	NDC sectors	CBAM sector	Objective of the NSDS Pact	Greening Potential Score
Transport and storage	Postal and courier activities	Postal activities under a universal service obligation and others	100	757,1	<ul style="list-style-type: none"> • Intercity passenger rail transport • Rail freight transport • Urban, suburban and road passenger transport • Operation of personal mobility devices and cycle logistics • Transport by motorbikes, passenger cars and light commercial vehicles • Road freight transport services 	<ul style="list-style-type: none"> • Vehicle renewal • Sustainable transport 	Transport	Intrinsic to all CBAM sectors	Sustainable transport of public administration. Objective 6: to develop the exemplary role of public actors in the field of sustainable mobility.	5	
					<ul style="list-style-type: none"> • Inland waterway passenger transport • Inland waterway freight transport • Renovation of inland waterway passenger and freight transport • Maritime and coastal freight transport, vessels for port operations and auxiliary activities • Maritime and coastal passenger transport by water • Reorganisation of maritime and coastal freight and passenger transport • Infrastructure for personal mobility and cycle logistics • Infrastructure for rail transport • Infrastructure for low-carbon road and public transport • Infrastructure for low-carbon shipping • Low-carbon airport infrastructure 						
	Warehousing and auxiliary transport services	Warehousing and storage	5.421	15.808,2	<ul style="list-style-type: none"> • Services auxiliary to transport 						
					<ul style="list-style-type: none"> • Air freight and space transport 						
	Air transport	Other passenger land transport	17.676	7.488,1	<ul style="list-style-type: none"> • Road freight transport and removal services 						
					<ul style="list-style-type: none"> • Road freight transport and removal services 						
	Land and pipeline transport	Road freight transport and removal services	19.952	29.906,9							

ANNEX VIII

Ecosystem of SME financing in Morocco

Table 40: Ecosystem of small and medium-sized enterprise financing in Morocco

Category	Institution	Responsibilities	Contribution to green finance
Regulators	MEF	<ul style="list-style-type: none"> Accelerating the financial inclusion of SMEs. Integrated Business Support and Financing Programme. Integrated support and financing programme for entrepreneurship. 	<ul style="list-style-type: none"> Promotion of the Moroccan green finance market to international partners. Initiatives for the implementation of green financing solutions. Coordination of green finance support programmes.
	BAM	<ul style="list-style-type: none"> Implementation of actions to ease credit conditions. Establishment of mechanisms for banks to refinance their loans to SMEs. Development of a financial information sharing system. 	<ul style="list-style-type: none"> Coordination of the development of the roadmap for the alignment of the Moroccan financial sector with sustainable development. Implementation of Directive No. 5/W/2021 on the financial risk management framework for climate change and the environment. In the process of establishing a green taxonomy for the financial sector.
	AMMC	<ul style="list-style-type: none"> Creation of the second and third compartment on the stock exchange to encourage SMEs to go public. Regulation of the private equity market. 	<ul style="list-style-type: none"> Setting up a regulatory framework for green bonds. Member and co-chair of the Sustainable Banking Network and member of the IOSCO Sustainable Finance Working Group. Participation in the project to set up a green taxonomy in Morocco. Contribution to the roadmap for aligning the Moroccan financial sector with sustainable development.
Finance providers	TAMWILCOM	<ul style="list-style-type: none"> Contribution to the removal of barriers to access to finance for SMEs. Intervention with its partners in the financial sector to meet the needs of Moroccan companies through a range of adapted financing mechanisms. Strengthening the relationship of trust between SMEs and banks. 	<ul style="list-style-type: none"> Promotion of green finance. Establishment of a green co-financing offer with commercial banks. In process of strengthening the offer through technical assistance to green projects.
	GPBM	<ul style="list-style-type: none"> Improving financing conditions, strengthening the relationship of trust between SMEs and banks Contribution to the Entrepreneurship Financing Support Fund. Standardisation of the minimum information to be provided by SMEs when applying for credit. 	<ul style="list-style-type: none"> Contribution to the roadmap for the alignment of the Moroccan financial sector with sustainable development.

Category	Institution	Responsibilities	Contribution to green finance
Finéa	<p>Financing company. A subsidiary of the CDG group aiming to facilitate access to financing and public procurement for companies.</p>	<ul style="list-style-type: none"> Facilitating access of SMEs to financing and public procurement. Offering tailor-made solutions through financing, co-financing, refinancing and guarantees. 	<ul style="list-style-type: none"> In the process of positioning itself in green finance in favour of SMEs.
DFIs	<p>International DFIs.</p>	<ul style="list-style-type: none"> Providing the necessary funds to finance SMEs and the green economy through local FIs. Technical assistance to SMEs and financial actors. 	<ul style="list-style-type: none"> Main providers of funds for green financing in partnership with local banks. Providing technical expertise for capacity building of Moroccan financial sector operators.
AMIC	<p>Moroccan Association of Capital Investors</p>	<ul style="list-style-type: none"> Federation, representation and promotion of the Moroccan private equity industry to local and international investors, public authorities and entrepreneurs. 	<ul style="list-style-type: none"> Promotion of green finance among member asset management companies. Environmental impact assessment of private equity activity in Morocco.
Business facilitators	<p>Operational instrument of the public authorities for the development of SMEs, led by the Ministry of Industry, Trade, Green and Digital Economy</p>	<ul style="list-style-type: none"> Promotion of SMEs through four flagship programmes to support SMEs: <ul style="list-style-type: none"> Istitmar: supports companies with strong growth potential and development projects by granting a bonus for tangible and/or intangible investment; MOWAKABA: supports companies in their global transformation process through the implementation of complementary offers of expertise and technical assistance, digital transformation and support for creativity and co-development projects; NAWAT: a long-term support offer for VSEs, deployed in partnership with referenced business networks through delegated management contracts; and Tatwir Green Growth: support for the decarbonisation of SMEs. 	<ul style="list-style-type: none"> Promotion of green finance. Introduction of green financing products for start-ups and SMEs (e.g. investment grants and repayable aid). Technical assistance to green projects.

Category	Institution	Responsibilities	Contribution to green finance
CGEM	VSE and SME Commission, Energy Competitiveness and Green Economy Commission	<ul style="list-style-type: none"> Develop access to bank and alternative financing for national SMEs. Supporting SMEs in recovering from the COVID-19 pandemic. To improve the competitiveness of the national SME. Promote the increase of green energy in the national energy mix and the use of RE and EE by companies. Mobilise industry for a clean and circular economy and contribute to the emergence of green industrial ecosystems and a green molecules industry. 	<ul style="list-style-type: none"> Establishment of a special commission for energy competitiveness and the green economy. Promotion of the green economy among Moroccan economic operators.
OMTPME	Moroccan Observatory of SMEs	<ul style="list-style-type: none"> Collection of statistical data relating to MSMEs in order to prepare reports, analyses, general and thematic studies, periodic notes and an annual report on the environment and financing conditions of MSMEs. Follow-up of aspects related to the support and financing of SMEs in order to define a vision at national level. 	<ul style="list-style-type: none"> Establishment of databases needed to assess the potential for green financing of SMEs.
Technical support providers	AMEE Moroccan Agency for Energy Efficiency	<ul style="list-style-type: none"> Design, implementation and monitoring of EE programmes. Proposal and dissemination of EE standards and labels. Technical assistance to Maroc PME's Tatwir Green Growth programme. 	<ul style="list-style-type: none"> Mobilisation of the necessary financing for the implementation of EE programmes. Providing technical expertise to financing institutions (e.g. Maroc PME and BP).
EIS	Energy Engineering Company	<ul style="list-style-type: none"> Carrying out energy diagnostics. Implementation of EE projects. Structuring and developing new project models. Support for project funding Contribution to the development of the Moroccan energy ecosystem. Super ESCO of the state. 	<ul style="list-style-type: none"> Support in identifying appropriate financing solutions for green projects. Supporting SMEs in the implementation of public EE projects.

ANNEX IX

Timing and conduct of consultations

Table 41: Timing and conduct of consultations

Evaluation	Category	Stakeholders	Departments	Persons in charge met	Date of the meeting(s)	Documentation identified
Regulation	Regulators	BAM	Economic Studies Directorate and Banking Supervision Directorate (Regulatory Department and Green Finance Department)	Ms Najwa Mouhaouri, Head of the Green Finance Department, Banking Supervision Directorate	08/06/2022 at 16.00 (GMT+1)	<ul style="list-style-type: none"> Studies related to the potential and challenges of green finance in Morocco. Figures on the achievements of the Intilaka programme.
		OMTPME		Mr Haitham Barhoune, Economist at the OMTPME Mr Abderrahmane Fekhari, Data Scientist at the OMTPME	04/07/2022 at 11.00 (GMT+1)	<p>For all sectors 2018–2019 (compared to the annual report) by enterprise category (i.e. LE, SME, VSE and micro-enterprise) (active legal entities/active natural person companies) to the extent of and by region in % and in MAD million:</p> <ul style="list-style-type: none"> data on liabilities; data on the breakdown of the financial debt; data on liquidity ratios; and data on the volume of lease financing (excluding liabilities). <p>For all sectors (in relation to the 2019–2020 sectoral notebooks):</p> <p>data on the number of enterprises, their turnover (including by export), value added, investment volumes, their branches and sub-branches.</p> <p>For the year 2021: possibility to access the same types of data mentioned above.</p>

Evaluation	Category	Stakeholders	Departments	Persons in charge met	Date of the meeting(s)	Documentation identified
		Central Moroccan Insurance Mutual (if the financial instrument will be publicly traded)	Asset Management and Savings Protection Directorate (OPCC) and Financial Operations and Markets Directorate (SME Department)	Yasser Mounsiif, Head of Financial Information and Operations Department (Sessions 1 and 2) Jalal Cherkaoui (Session 2) Mr. Omar Tannouche Bennani, Head of the Undertakings for Collective Investment in Transferable Securities and Management under Mandate Department (Session 2) Mr Omar Mzioud, Head of the Alternative Investment Funds and Participatory Finance Department (Session 2)	10/05/2022 at 11.00 20/05/2022 at 9.30	-
Offer	Commercial banks	CDG Capital	SME Banking and Sustainable Development Department	Laila Mikou, Sustainable Development Directorate Safae Badraoui, Business Banking	30/05/2022 at 11.00 (GMT+1)	-
		BOA-BMCE	SME Department	Amal Benaissa Asmaa Dinia Mamoun Tahri-Joutei Meriem Chennaoui Siham Khadraoui Ghizlaine Massoun Houda Sbihi	07/06/2022 at 14.30 GMT+1	A numerical overview of achievements across the green finance lines in which BOA was involved, including the number of SMEs supported and their sectors.
		AWB	Domaine Vert Department	Beryahya Aziz, SME Market Manager, GE Boumaiz Youssef, Project Finance Manager Sefar Mohamed Saad, Head of Corporate and SME Market Zemmita Ikram, Marketing and Communication Manager Drissi-Alami Lalla Sanaa, Head of international group Souad Fechtali, Head of Investment Finance and Enterprise Support Hasnaa Ibnbrahim, Marketing and Communication Project Manager	07/06/2022 at 14.30 (GMT +1)	A numerical overview of achievements across the green finance lines in which Bank of Africa was involved, including the number of SMEs supported and their sectors.

Evaluation	Category	Stakeholders	Departments	Persons in charge met	Date of the meeting(s)	Documentation identified
		CAM	Sustainable Development Department, SME Market Department and Upline Investment	Mariém Dkhil, Director of the Cooperation and Sustainable Development Unit Niama Oukessou, Sustainable Development, Organic Agriculture Abdeljabbar Bouroua, Cooperation and Sustainable Development	06/06/2022 at 11.00 (GMT+1)	<ul style="list-style-type: none"> CAM's guide to the funding available through the group in different activity sectors. Study with IFC on the agricultural sector.
		BP	Presidency	Mr Mohammed Amimi, Executive Director, in charge of the SME market, formerly Director of Maroc leasing Mr Mounsiif Ghezala, in charge of the animation of the SME market	07/06/2022 at 11.00 (GMT+1)	Results of regional piloting to capture investment intentions by sector and by region, especially for green SMEs.
	Equity investors	AMIC	AMIC Studies and Statistics Commission, AfricInvest, AMIC CSR Commission and GO Consulting.	Farid Benfadil, Chairman of the Studies and Statistics Committee, board member Ali Bensouda, GO Financing, Cleantech Financing Mouna Hassani, AMIC Policy Officer	27/05/2022 at 11.00 (GMT+1)	AMIC 'Activity Report' 2021.
		Azur Innovation Management	General management	Mr Tarik Haddi, Managing Director of the Azur Innovation Management, Chairman of the Management Board of the Azur Innovation Fund, Chairman of AMIC Adnane Filali, Deputy General Manager of Azur Innovation Management	<ul style="list-style-type: none"> 14/06/2022 at 11.00 (GMT+1) 	-
		Attijari Invest	Strategy Department and Innovation and Investment Department	Fouad Chaguer, Managing Director of Attijari Invest	02/06/2022 at 09.30 (GMT+1)	-

Evaluation	Category	Stakeholders	Departments	Persons in charge met	Date of the meeting(s)	Documentation identified
	Institutional investors	TAMWILCOM (Innov Invest, Green Invest, Renovotel, Damane Capital Risque, SMGF, Azur Innovation Fund, MNF II, Emergence Invest, PME Croissance and 3P Fund)	Private/ financial sector department	Abdelmoughite Abdelmoumen Eikhettab Benzina Taoufiq Lahrach	06/05/2022 at 11.00 (GMT+1)	<ul style="list-style-type: none"> Product sheets (Green Invest). Internally available studies on the potential for green financing of SMEs. Statistics on green projects financed by Green Invest, including number of projects, types of projects, SME profile financed, amount of financing granted (e.g. guarantee, co-financing and equity) and the number of total applications received, including rejected applications (if available). Mid-term review of the Innov Invest programme.
	Donors	KfW	Private/financial sector load	Othmane Ouannane, Private and Financial Sector Expert Hamza Zhiber, Private and Financial Sector Expert	03/06/2022 at 16.00 (GMT+1)	Studies on the potential for financing green SMEs in Morocco.
		EBRD	Private/financial sector load	Mr Younes Aitbenothman, Associate Banker	03/06/2022 at 14.30 (GMT+1)	<ul style="list-style-type: none"> Studies carried out prior to the establishment of the financing lines, notably informing on the potential of green financing in Morocco (carried out in 2014) The average MorSEFF loan and other details of the funding line.
		AFD	Directorate of Representation in Morocco	Mr Vindel Bruno, AFD Morocco	03/06/2022 at 11.00 (GMT+1)	AFD carries out its activities through financial intermediation with public or private banks.
Application	Clusters and support for Moroccan SMEs	Maroc PME	Coordination of Federations and Commissions	Ms Houria Nadifi, Strategy and Communication Director Mr Abderraouf Aissaoui, Head of Strategy and International Partnerships Division Mr Mohammed Belhaj	16/05/2022 at 11.00	<ul style="list-style-type: none"> Mapping of SMEs in Morocco. Figures on the achievements of the Tatwir Green Growth programme.
		CGEM: VSE and SME Commission, Green Economy Commission	Presidency	Houda Bouchtia, Head of Green Economy Committee Badr Ikken, VP Green Economy Commission El Kabbaj Omar, Commissions Unit	07/07/2022 at 17.00 (GMT+1)	-

Evaluation	Category	Stakeholders	Departments	Persons in charge met	Date of the meeting(s)	Documentation identified
		AMEE	Strategy and Development Division	Fadwa Elatrach, Director of Strategy and Development Radouan Yessouf, Deputy Director and Head of the Training and Studies Division Ahmed Himy, Head of Strategic Studies	26/05/2022 at 11.00 (GMT +1)	Description of the SMEs supported by AMEE, including their number, geographical distribution, sector and the technical support made available to them.
		SIE	Treasury and External Finance Directorate	Mr Hassan Harrak, Deputy Director Mr Abderrazak Khaoua, Cooperation and Financial Development Officer Ms Soukaina Boutaleb	10/06/2022 at 11.00 (GMT +1)	Study on the energy saving potential in public buildings and utilities . Study carried out in partnership with GIZ on the potential for energy projects, including the capacity of SMEs to respond to this potential.
National political and economic context	Departments/ public actors	MEF	Directorate of Observation, Cooperation and Communication at the Department of Energy Transition	Zakaria Nachid Amine Bouarfa Charlotte Beck Papa Moda, Safaa El Yafi	05/05/2022 at 14.30 (GMT +1)	<ul style="list-style-type: none"> Studies over the last three years on the financing potential of SMEs. Studies carried out with the IFC and CAM over the last three years on financing the agricultural sector. MEF is a member of the International Platform for Climate Finance (IPCF), a European advisory platform which carries out studies, resulting in a need for sharing permission.
	Cooperation agencies	GIZ	PROMET (Promotion of Entrepreneurship) project	Karim Bouhafes, Technical Advisor for the PROMET project	20/06/2022 at 15.15 GMT +1	<ul style="list-style-type: none"> Study on public procurement, with a focus on SMEs. Implementation of the guidelines of the Moroccan financial inclusion strategy. Studies from the work of the GIZ Green Economy Task Force, which could shed light on the activities of green SMEs.

ANNEX X

Harmonised European Development Finance Institution Exclusion List

Harmonised European Development Finance Institution Exclusion List – October 2020

According to the 'EDFI Principles for Responsible Financing of Sustainable Development', EDFI members have mutually agreed on the following 'Harmonized EDFI Exclusion List' for co-financed projects:

EDFI members will not finance any activity, production, use, distribution, business or trade involving:

1. Forced labour⁶⁹ or child labour;⁷⁰
2. Activities or materials deemed illegal under host country laws or regulations or international conventions and agreements or subject to international phase-outs or bans, such as:
 - 2.1. Ozone depleting substances, polychlorinated biphenyls (PCBs) and other specific hazardous pharmaceuticals, pesticides/herbicides or chemicals;
 - 2.2. Wildlife or products regulated under the Convention on International Trade in Endangered Species or Wild Fauna and Flora; or
 - 2.3. Unsustainable fishing methods (e.g. blast fishing and drift net fishing in the marine environment using nets in excess of 2.5 km in length);
3. Cross-border trade in waste and waste products, unless compliant with the Basel Convention and its underlying regulations;
4. Destruction⁷¹ of High Conservation Value (HCV) areas;⁷²
5. Radioactive materials⁷³ and unbounded asbestos fibres;
6. Pornography and/or prostitution;
7. Racist and/or anti-democratic media; or
8. In the event that any of the following products form a substantial part of a project's primary financed business activities:⁷⁴
 - 8.1. Alcoholic beverages (except beer and wine);
 - 8.2. Tobacco;
 - 8.3. Weapons and munitions; or
 - 8.4. Gambling, casinos and equivalent enterprises.

⁶⁹ "Forced labour" means all work or service, not voluntarily performed, that is extracted from an individual under threat of force or penalty, as defined by ILO conventions.

⁷⁰ Persons may only be employed if they are at least 14 years old, as defined in the ILO 'Fundamental Human Rights Conventions' (Minimum Age Convention C138, Art. 2), unless local legislation specifies compulsory school attendance or the minimum age for working. In such cases, the higher age shall apply.

⁷¹ "Destruction" means the 1) elimination or severe diminution of the integrity of an area caused by a major, long-term change in land or water use or 2) modification of a habitat in such a way that the area's ability to maintain its role is lost.

⁷² HCV areas are defined as natural habitats where these values are considered to be of outstanding significance or critical importance (see <http://www.hcvnetwork.org>).

⁷³ This does not apply to the purchase of medical equipment, quality control (measurement) equipment or any other equipment where the radioactive source is understood to be trivial and/or adequately shielded.

⁷⁴ For companies, "substantial" means more than 10 % of their consolidated balance sheets or earnings. For FIs and investment funds, "substantial" means more than 10% of their underlying portfolio volumes.

Furthermore, the following investment exclusions are considered a minimum common requirement by all EDFI members for all new direct financing (debt or equity), for indirect equity through new commitments to investment funds and for new dedicated lending⁷⁵ via FIs:

- coal prospection, exploration, mining or processing;
- oil exploration or production;
- standalone fossil gas exploration and/or production;⁷⁶
- transport and related infrastructure primarily⁷⁷ used for coal for power generation;
- crude oil pipelines;
- oil refineries;
- construction of new or refurbishment of any existing coal-fired power plant, including dual;
- construction of new or refurbishment of any existing heavy fuel oil (HFO)-only or diesel-only power plant⁷⁸ producing energy for the public grid and leading to an increase in absolute CO₂ emissions;⁷⁹ and
- any business with planned expansion of captive coal used for power and/or heat generation.⁸⁰

⁷⁵ "Dedicated lending" is defined for these purposes as loans conditioned by a use of funds clause specifying that such financing will be used for one or more of the purposes described.

⁷⁶ Gas extraction from limnically active lakes is excepted from this exclusion.

⁷⁷ "Primarily" means more than 50% of the infrastructure's handled tonnage.

⁷⁸ For indirect equity through investment funds, investments (up to a maximum of 20% of the fund) in new or existing HFO-only or diesel-only power plants are allowed in countries that face challenges in terms of access to energy and under the condition that there is no economically and technically viable gas or RE alternative.

⁷⁹ I.e. where EE measures do not compensate for any capacity or load factor increase.

⁸⁰ This does not apply to coal used to initiate chemical reactions (e.g. metallurgical coal mixed with iron ore to produce iron and steel) or as an ingredient mixed with other materials, given the lack of feasible and commercially viable alternatives.



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