

MAPPING STUDY OF THE CAPACITY-BUILDING NEEDS AND GAPS OF SMES TO ENGAGE IN CLIMATE ACTION IN THE MENA REGION

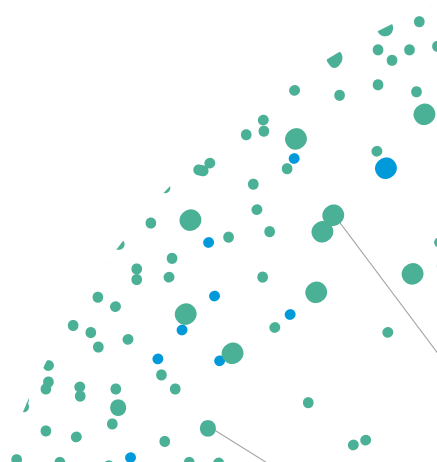
FINAL SYNTHESIS REPORT



United Nations
Framework Convention on
Climate Change



Regional Collaboration Centre – Dubai
Promoting Climate Action in the
Middle East, North Africa and South Asia



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1

Introduction

1.1 Context and objective of the study

Countries in the Middle East and North Africa (MENA) region are among the most vulnerable in the world with regard to the likely impacts of climate change, the region has been identified as a climate change hot spot by the IPCC ¹. Climatic changes have already been reported in the region and are expected to accelerate and intensify in the near future ². So far, the focus has mostly been on what governments need to do to address climate change and its impacts. Engaging the private sector in climate change adaptation and mitigation efforts is essential to achieve global climate goals and build climate-resilient nations. This is particularly relevant in the MENA countries, whose economies will be heavily impacted by climate change in the coming years.

Private sector involvement is essential for multiple reasons. First of all, climate change presents material risks to businesses, the physical climate impacts must be dealt with and businesses need to be made resilient to them. In the future, a successful business will be a climate resilient

one. Moreover, it will be very difficult, almost impossible to build climate resilience globally without the private sector.

More precisely, the private sector can help mobilize financial resources, leverage the efforts of governments, engage civil society and communities, develop innovative climate services and adaptation technologies. Private sector involvement is essential in the transition to low-carbon and climate-resilient economies across all economic sectors. In particular, SMEs can pave the way for greening and adapting to climate change across the majority of economic sectors, including industry and manufacturing, agriculture, tourism and energy sectors.

Strengthening private sector capacities offers a great opportunity to further green businesses and help them adapt to climate change. This study aims to identify and assess knowledge gaps and capacity building needs to enable the private sector in the MENA region to contribute to the national government led efforts to address climate change in the context of national plans and strategies with a focus on climate change mitigation and

¹ <https://ufmsecretariat.org/project/clima-med/>

² https://www.iemed.org/osservatori/arees-danalisi/arxiu-adjunts/anuari/med.2019/Climate_Change_MENA_Region_Risks_Effects_Simone_Borghesi_Elisa_Ticci_IEMed_MedYearbook2019b.pdf/

adaptation for SMEs, whilst assessing the state of play regarding carbon pricing instruments supporting the implementation of NDCs as well. A mapping of the type of capacity building that is required at a regional and country level (if/when possible) was conducted to help address the needs and gaps on climate action faced by SMEs in the MENA countries. The final aim of the study is to contribute to better prepare businesses for addressing climatic changes and impacts and improving their resilience, as well as enabling them to make use of climate finance sources and position themselves in national climate policy environments.

1.2 Methodology and scope of the study

1.2.1 Desk-based review and survey

The assessment is based on a compilation of up-to-date climate-related capacity-building needs of private sector entities, particularly SMEs, at national and local level in the MENA region. This includes:

- Up-to-date information on climate change programmes and activities of academic institutions and research organizations in the MENA region that could address or integrate private sector capacity-building needs;
- The design of a brief survey to gather information from private sector entities with a particular focus on SMEs;
- The creation of a database containing all relevant information and data compiled during the assignment.

1.2.2 Scope and description of the data collection approach

The MENA region covers an area stretching from Morocco to Egypt and from Yemen to Iran across the Arabian Peninsula. The MENA countries analysed for the purpose of this study include Algeria, Bahrain, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Palestine, Qatar, Saudi Arabia, Syria, Tunisia, United Arab Emirates, and Yemen.

Even though MENA countries present some cultural and climate similarities, there are also clear economic and social disparities as well as conflicts and political instabilities hampering some countries from prioritizing climate action efforts. These disparities have a direct impact on the availability and quality of country and sector specific data that is needed for this study. Consequently, the following approach was used:

- A desk-based review for all 17 countries mentioned above was conducted to collect primary basic data on a) SME landscape, structure and role in the national economy as a reference point, b) the knowledge gaps and capacity needs of SMEs in the countries, as well as c) existing climate action capacity-building programmes for SMEs and other d) academia, research centers and private organizations that offer these.
- The desk-based review was then complemented by a targeted survey to SMEs on their own experiences and needs, to obtain additional information on the possible additional sector to be included in the study or businesses/industries-specific information on capacity-building needs and/or other existing climate action capacity-building programmes for the private sector and/or to check whether any country-specific data is available at all.

2

Climate Change and the private sector in the MENA: Background

2.1 Climate change and its impacts in the MENA

In 2018, the MENA emitted over 3 billion tons of carbon dioxide and produced almost 9% of global greenhouse gas emissions³, despite accounting for only 6% of the global population⁴. These emissions are mostly from the energy sector, which is a key emission source in many Middle Eastern and North African economies due to the production and exports of extensive oil and natural gas reserves^{5,6}. Climatic changes in the MENA are projected to lead to reduced rainfall, greater seasonal temperature variability, and a rise in the Mediterranean sea level, all of which constitute threats to water availability, agricultural production and economic security⁷.

In terms of water security, over 60 percent of the population in the MENA live in areas with high

or very high surface water stress with reduced available amounts of water for immediate uses such as agriculture or filling reservoirs for drinking water⁸. Around 80 to 100 million people are expected to experience water stress by 2025 in the MENA as a whole. By 2050, water availability per capita is expected to decline by 50 percent⁹.

Despite the fact that MENA is the most water-scarce and dry region worldwide, more than 35 % of the MENA population works in the agriculture sector, which contributes 13 % to the region's GDP. Most of the agricultural area in the MENA countries is rainfed, with another large portion of crop production based on dryland farming systems. This leaves the agriculture sector, including many small and medium sized companies highly vulnerable to temperature and precipitation changes¹⁰.

3 "CO₂ Emissions | Global Carbon Atlas". www.globalcarbonatlas.org. Retrieved 2021-04-01

4 "Population, total - Middle East & North Africa, World | Data". data.worldbank.org. Retrieved 2021-04-01

5 Abbass, RA; Kumar, P; El-Gendy, A (2018): An overview of monitoring and reduction strategies for health and climate change related emissions in the Middle East and North Africa region. *Atmospheric Environment*. 175: 33–43.

6 Al-mulali, Usama (2011-10-01). "Oil consumption, CO₂ emission and economic growth in MENA countries". *Energy*. 36 (10): 6165–6171.

7 Verner D 2012: Adaptation to a changing climate in the Arab countries: a case for adaptation governance and leadership in building climate resilience. Washington D.C.: MENA Development Report, World Bank

8 World Bank. 2018. *Beyond Scarcity: Water Security in the Middle East and North Africa*. MENA Development Report; Washington, DC: World Bank

9 Warren et al., 2006. Understanding the regional impacts of climate change. Research Report Prepared for the Stern Review on the Economics of Climate Change. Tyndall Centre for Climate Change Research, Working Paper 90.

10 <https://www.ecomena.org/agriculture-mena/>

The MENA countries have committed to achieving the long-term climate goals described by the Paris Climate Agreement through the submission of their Nationally Determined Contributions (NDCs). All MENA countries have submitted their NDCs except for Libya and Yemen.

2.2 SMEs in the MENA

2.2.1 Role of SMEs in the economy

SMEs account for a very high share of private sector employment in the MENA region, particularly in countries with large informal sectors. The definition of what actually constitutes an SME varies from country to country, and is usually based on the number of employees and/or the annual turnover. For instance, the EU countries collectively define SMEs as having fewer than 250 employees¹¹, whereas other countries define them as up to 100 employees. Across the MENA, over 90% of the SMEs employ less than 50 people¹².

According to statistics, SMEs typically average between 10% and 40% of all employment in the MENA region. The majority of enterprises in MENA are Micro and Small and Medium Sized Enterprises (MSMEs) estimated at 19-23 million (formal and informal) in number and comprising 80-90% of total businesses in most countries¹³. On the contrary however, SMEs contribution to the GDP ranges between only 4-40%; due to the strong role of the state in the economy, especially in several Arab countries¹⁴.

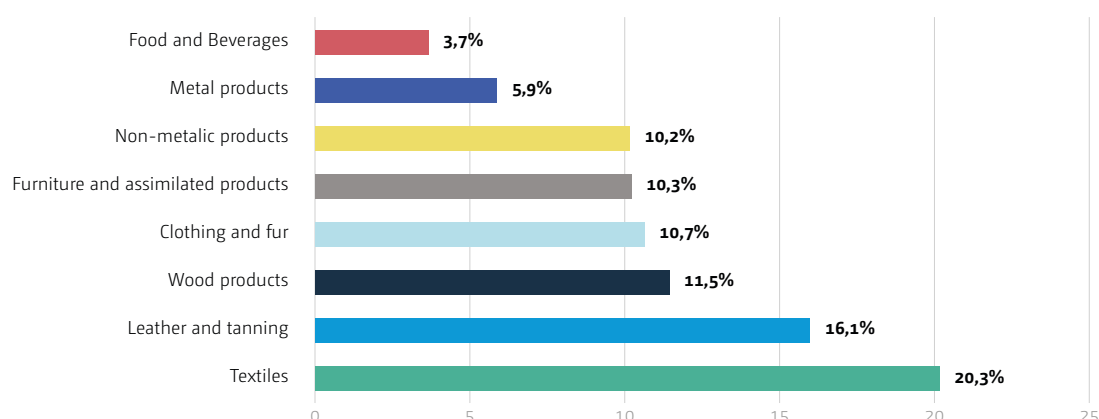
SMEs, especially micro-sized ones, are commonly found in the wholesale and retail sectors, whereas small and medium-sized SMEs are often active in manufacturing, construction, and industry activities. Despite the fact that not too many SMEs are found in the agriculture sector, which is most directly affected by climate change, the MENA countries' economies in general will be affected by climate change in several ways, both directly and indirectly (see below). This also has effects on SMEs and their business operations.

SMEs in the MENA region account for a vast majority of production units and employment, as depicted below for the manufacturing sector.

2.3 State of play: carbon pricing mechanisms in the MENA region in the beginning of 2021

Apart from some experiences in Clean Development Mechanism (CDM) projects under Art. 12 of the Kyoto Protocol, whereby 95% of these experiences and related projects rest with actors in Latin America and Asia & Pacific (see UNEP DTU CDM/JI Pipeline Analysis and Database¹⁵) there is hardly any experience in the MENA with other or new carbon pricing instruments such as carbon taxes, budgets or emissions trading schemes, even more so when it comes to private sector actors or SMEs (World

Figure 1 - Sectors where industrial SMEs are active



11 European Commission, 2005

12 <https://www.meii.org/small-medium-enterprises#:~:text=SMEs%20account%20for%20a%20very,of%20all%20employment%20in%20MENA.>

13 IMF 2019: Enhancing the Role of SMEs in the Arab World- Some Key Considerations.

14 IMF 2019: Enhancing the Role of SMEs in the Arab World- Some Key Considerations.

15 See <http://www.cdmpipeline.org/cdm-projects-region.htm>

Bank 2020a¹⁶). So far, few initiatives (funded) by multilateral or bilateral organizations are being implemented in the region, which are mostly readiness activities (e.g., by the World Bank), building capacities and institutional capacities. In particular, Morocco, Tunisia and Jordan are to be mentioned here (World Bank 2020b¹⁷).

One of the leading international facilitation mechanisms to foster the development and application of carbon pricing mechanisms in its different forms is the World Bank's Partnership for Market Readiness (PMR) initiative. The PMR's activities in the region¹⁸ reflect rather well the state of play, the very early stage of carbon pricing mechanisms and their deployment in the MENA region, which cannot even be called a nascent market, yet. Morocco is a bit more advanced, whereby the development of carbon pricing instruments has begun (carbon tax, crediting). Jordan, instead, identifies a role for market instruments to support energy efficiency in its residential building sector and develops guidance on Article 6 to facilitate Jordan's participation in post-2020 international market mechanisms. Last but not least, Tunisia assesses the impact of removing energy subsidies and introducing a carbon price on Tunisia's socio-economic development.

Currently, market developments in the context of carbon pricing measures and related activities revolve around existing carbon project opportunities in the compliance and voluntary markets driven by private sector service providers and intermediaries, such as Dubai Carbon or the Global Carbon Council (GCC), an initiative of Gulf Organisation for Research and Development (GORD). The GCC, for example, is a forward-looking initiative that supports voluntary action by organisations with a view to reduce their carbon footprint as well as using offsetting measures – including assisting with offsetting the CO₂-footprint of the FIFA World Cup in Qatar in 2022 – but also aims to support or link in with opportunities evolving under Art. 6 PA market mechanisms as well as the emerging Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA)¹⁹.

2.4 Impact of climate change on SMEs

Climate change may impact SMEs in several ways, and thus require different sets of reactions to the changing conditions, depending on the economic sector the SME is active in. In general, natural disasters, drought and other extreme natural phenomena can significantly disrupt business operations, reduce commercial activity and increase cost of production. Examples of economic impacts include higher insurance rates, loss of business, loss of tourist dollars, reduced resources, cost of infrastructure rehabilitation, and higher taxes.

There are many reasons to why SMEs should prepare for climate change and assess climate risks and opportunities. Making businesses resilient to future climate changes and impacts is beneficial. On the one hand actively improving resource efficiency, such as reducing water, paper or energy use can lead to cost-savings, on the other hand it is essential to be able to react to risks and threats from future changes that could endanger the entire business model.

Moreover, putting energy saving principles in practice is easier for smaller companies than for larger companies. Given their smaller size, SMEs have fewer layers of management and enjoy less bureaucracy for making changes and improvements. In sum, climate action/taking climate measures can be beneficial for SMEs for several reasons, including:

- Saving costs by optimizing use of resources in the long run;
- Elevating the company's prestige, social responsibility, customer trust, and loyalty;
- Boosting profitability and market competitiveness;
- Improving production processes;
- Leading to a positive impact on the environment²⁰
- Reducing vulnerability to climate change impacts and threats.

16 World Bank (2020a). "State and Trends of Carbon Pricing 2020" (May), World Bank, Washington, DC, at https://www.ieta.org/resources/Conferences_Events/2020/Carbon%20Market%20Virtual%20Series/WB%20State%20and%20Trends%202020_Full%20report.pdf

17 World bank (2020b). Partnership for Market Readiness 2020 Annual Report, Towards a Low-Carbon Future, at https://www.thepmr.org/system/files/documents/PMR_Report_4_2020_Final.pdf

18 World Bank (2020). Partner for Market Readiness: 2020 Annual Report. Towards A Low-Carbon Future, https://www.thepmr.org/system/files/documents/PMR_Report_4_2020_Final.pdf, accessed in March 2021

19 See <https://www.globalcarboncouncil.com/news-gcc-receives-corsia-approval-to-help-airlines-meet-carbon-neutral-growth-targets.html>

20 <https://economy.gov.lb/en/services/support-to-smes/going-green-for-smes>

3

Results of the desk-based review

3.1 Climate action capacity building gaps and needs in the MENA region

There are a list of factors and challenges that can hinder SMEs from engaging in climate action activities and investing in climate resilience in general, which are also applicable to the MENA region. Some of these barriers and challenges such as the lack of financial capacity to implement the climate action measures along with the uncertain market benefits and the lack of technical knowledge on climate adaptation and mitigation have indeed already been reported in some MENA countries and addressed to some extent in existing climate action capacity building programmes. The knowledge and capacity gaps described in literature sources, which should be addressed through climate action capacity building programmes are listed and detailed below.

1. **Insufficient climate knowledge & absence of climate change risk assessments^{21,22}**
SMEs tend to be less informed than larger business about the existing risks and threats

posed by climate change because the information on climate risks and uncertainties is sometimes unavailable or inaccessible for SMEs, making it difficult for these businesses to incorporate climate risks into their planning and decision-making processes. This is particularly the case in countries with weak climate information infrastructure and dissemination capacity. In addition to that, there is also a general lack of knowledge on the existing climate mitigation tools and incentives to green businesses and cut carbon emissions (energy and environmental management systems, carbon footprint and LCA, among others).

2. **Weak identification and evaluation of cost-effective adaptation and mitigation measures¹⁹**
SMEs need to be able to better assess and prioritize available measures and options, both for adaptation and mitigation. Especially with regard to adaptation there is no standard “menu” of measures from which enterprises can choose. SMEs would benefit from guidance on how to develop specific tools or adaptation measures that are tailored to their businesses. As a matter of fact, many enterprises struggle to identify and

²¹ <https://www.adaptation-undp.org/privatesector/>

²² Green SMEs in Middle East: Obstacles and Challenges | EcoMENA

choose the right adaptation measures. In addition, knowledge gaps exist on how to use the existing tools to assess the feasibility and cost-effectiveness of mitigation options.

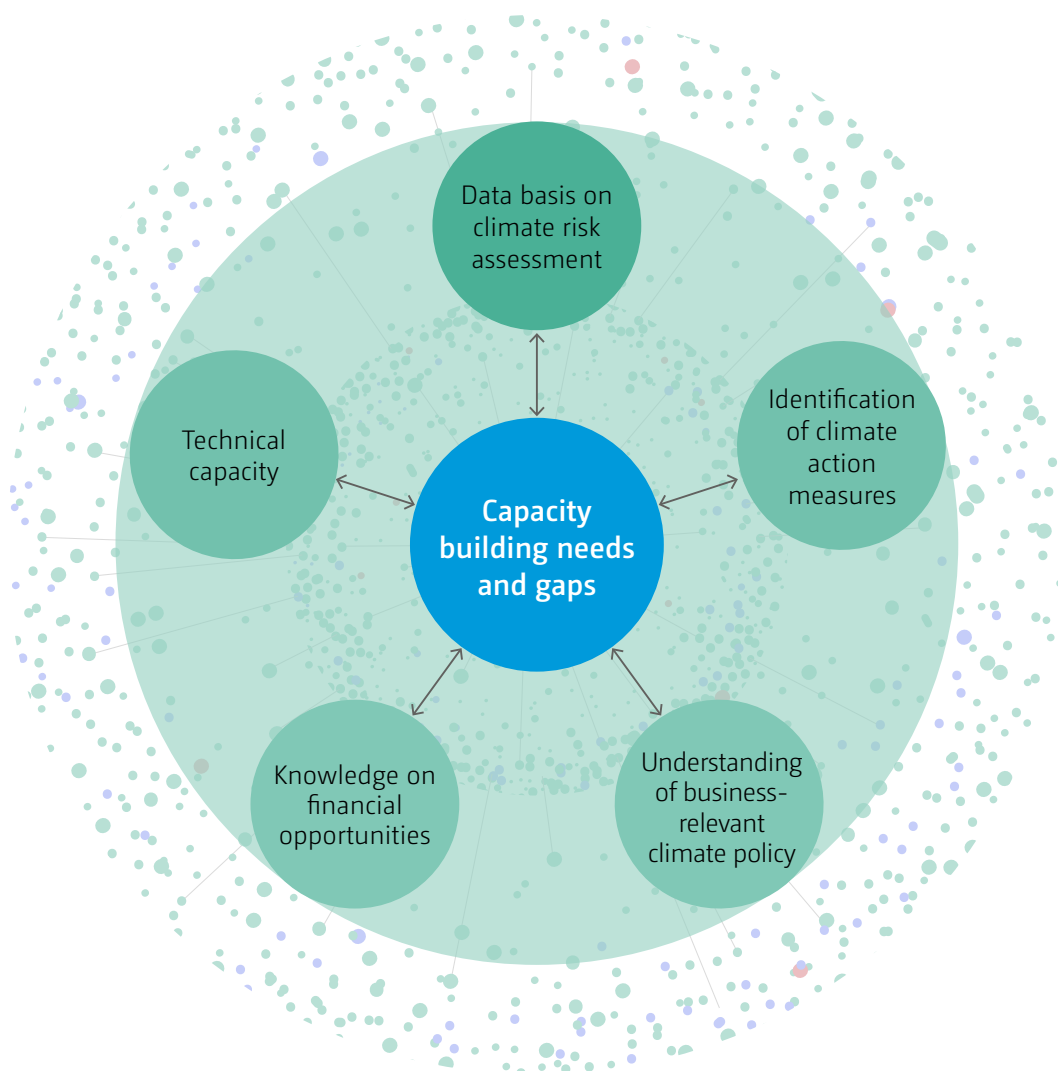
3. Limited technical capacity to implement adaptation and mitigation measures²³

Adopting new business processes to green the supply chain, developing innovative products or services, and new technologies that are climate friendly and resilient require technical skills and expertise that most SMEs often lack, as well as the necessary financial means. Unfortunately, a perceived lack of technical expertise in implementing adaptation solutions can also hinder external investors from investing in SMEs without climate risk management plans.

4. Limited knowledge on financial opportunities to implement climate action measures²⁴

Financial support and access to funding are described as one of the major obstacles faced by SMEs in the MENA region. As a matter of fact, some investments that are required for climate change risk management can have relatively large upfront costs and relatively long payback times as well as other uncertainties that could deter SMEs from investing in climate change risk management. In addition to the lack of financial means, SMEs are lacking knowledge on how to access alternative types of financial instruments for adaptation and mitigation measures for a variety of reasons.

Figure 2 - Capacity building needs and knowledge gaps of SMEs in the MENA region



²³ <https://www.adaptation-undp.org/privatesector/>

²⁴ <https://www.adaptation-undp.org/privatesector/>

5. Limited knowledge of business-relevant climate policy²⁵

SMEs in the MENA region cover a wide range of sectors. Some of these sectors might be regulated by present or future climate policies, either at the national or international level, and might be affected e.g., by carbon taxes, energy efficiency standards or other cost-intensive measures. Obligations to climate-proof certain business sectors could be another example. A sound understanding of the relevant climate policies, laws and regulations is crucial to pro-actively engage with potential new requirements.

3.2 Climate action programmes and initiatives for SMEs in the MENA region

A number of activities has been initiated in the region to support the private sector in general and /or SMEs in particular to better understand climate change impacts and prepare their businesses to them. These include the following initiatives:

Finance and Technology Transfer Centre for Climate Change (FINTECC)²⁶

FINTECC is an EBRD programme that helps companies to implement innovative climate technologies in SEMED countries (Egypt, Lebanon, Jordan, Morocco and Tunisia). Its main goal is to support the implementation of climate technologies.

The EBRD's in-house energy and water efficiency specialists review energy, water and material efficiency potential and assist businesses in conducting resource efficiency audits, prioritizing sustainable resource efficiency investments and understand the technical and financial feasibility of installing climate technologies within their context.

The SME Climate Hub²⁷

The SME Climate Hub is a recent flagship initiative aimed at helping small and medium-sized enterprises reduce carbon emissions and increase their competitiveness through adopting

innovative green solutions. The SME Climate Hub offers a list of tools to help SMEs measure their GHG emissions, develop a climate strategy, and reduce their emissions as well as the emissions in their value chain.

The UN Global Compact²⁸

The UN Global Compact is a principle-based framework to encourage businesses worldwide to adopt sustainable and socially responsible policies, and to report on their implementation. The programme has two objectives: (1) to mainstream the ten principles in business activities around the world and (2) to catalyse actions in support of broader UN goals, such as the Millennium Development Goals (MDGs) and Sustainable Development Goals (SDGs).

Global Compact activities in the MENA region account for the fact that the private sector is increasingly recognized as instrumental to addressing pressing national and social challenges in the region. A growing group of regional networks aims to raise awareness and support participants in implementing the Ten Principles. Because MENA Local Networks have significant numbers of SME participants, they have made special efforts to support them and build the capacity of SME participants.

Saudi and Middle East Green Initiatives²⁹

The Middle East Green Initiative aims at increasing the regional share of clean energy, offsetting the impact of fossil fuels and protecting the environment, thus reducing carbon emissions in the region by 60%. The target will be achieved through a series of climate and energy related measures, including the use of clean hydrocarbon technologies and the planting of 50 billion trees, of which 10 billion in the Kingdom of Saudi Arabia. In addition, the initiatives aim to preserve marine and coastal environments by increasing the proportion of natural reserves and protected land. Saudi Arabia is the initiator of both initiatives, aiming to take climate action at national as well as regional levels. The national Saudi Green Initiative aims to reduce emissions by generating half of the country's energy from renewables by 2030. Both initiatives bring together public and private sector actors to maximize reach and impact.

²⁵ Green SMEs in Middle East: Obstacles and Challenges | EcoMENA

²⁶ <https://finteccebrd.com/region/semmed.html>

²⁷ <https://smeclimatehub.org/tools/>

²⁸ <https://www.unglobalcompact.org/engage-locally/mena>

²⁹ <https://saudigreeninitiative.org/>

Main regional programmes and initiatives and participating MENA countries

Country	FINTECC	SME Climate Hub	UN Compact	Middle East Green Initiative
Algeria				
Bahrain				
Egypt	X	X	X	
Iraq				
Palestine				
Jordan	X		X	
Kuwait				
Libya				
Morocco	X			
Oman				
Qatar		X		
Saudi Arabia				X
Syria				
UAE			X	
Yemen				
Lebanon	X		X	
Tunisia	X			

3.3 Country-level assessment: country profiles

The table below presents the level of data availability encountered in the desk-based review, and is the basis for the categorization of countries in the remaining course of this chapter.

For countries like **Yemen, Syria and Iraq**, where political instabilities and social conflicts have left great impacts on the economy or are still present, finding public information on the state and structure of SMEs has been difficult, let alone on the state of climate action capacity building needs for SMEs.

Country	SME situation and statistics	Climate action capacity building programmes for the private sector (SMEs)	Climate action capacity building gaps and needs
Algeria	Yes	No	No
Bahrain	Partly	Partly	No
Egypt	Yes	Partly	No
Iraq	No	No	No
Palestine	Yes	Yes	No
Jordan	Yes	Yes	No
Kuwait	Partly	No	No
Libya	Partly	No	No
Morocco	Yes	Yes	Yes
Oman	Yes	Partly	No
Qatar	Partly	Partly	No
Saudi Arabia	Yes	Partly	No
Syria	No	No	No
UAE	Partly	No	No
Yemen	No	No	No
Lebanon	Yes	Yes	Yes
Tunisia	Yes	Yes	No

4

Results of the survey

As core part of the study, a targeted survey was conducted among SMEs in the 17 MENA countries, to obtain additional information on their own experiences and needs regarding climate change impacts and resilience of businesses to expected changes. The survey was implemented through the software tool Survey Legend and was provided in English and French³⁰. A total of 209 responses were gathered, with nearly 70% of responses in English and 30% in French. The results presented in this section were extracted from 146 complete responses, whereas 63 respondents did not complete the questionnaire and are therefore not included in the final assessment.

Who participated in the survey? Background on respondents

Geographies. The large majority of respondents were based in the United Arab Emirates (30%) and Algeria (28%), followed by Morocco, Qatar and Syria with 5% each. Very few replies could be collected from Palestine, Yemen, Libya, and Jordan.

SME size. Nearly half of all replies came from respondents from big (>100 employees) and large (>250) SMEs. Smaller companies with up to 20 employees contributed around a quarter of the

responses, whereas small businesses with less than 5 staff members comprised only around 14% of responses. It seems that bigger companies are more likely than very small companies to have a strategic view on climate topics and be part of networks that shared the survey invitation.

Business sectors. Most respondents were active in the manufacturing sector (15%), followed by construction (10%) and tourism (including hotels, restaurants and touring offers: 9%). Agriculture, transport and wholesale/retail were also represented. However, 36% of all respondents selected “other” in response to this question. This indicates that respondents were either hesitant to reveal this information or in fact came from business sectors not covered by the question.

4.1 Climate change knowledge

A first block of questions addressed the respondents’ knowledge on climate change and potential climate action measures they have taken.

When asked to rank their knowledge on climate change on a scale from 1 (poor) to 5

³⁰ For a detailed list of survey questions, please see Annex A

(very good), almost half of the respondents assessed their understanding as good to very good. Only around one fifth reported a poor or basic knowledge level (Figure 3a below). This indicates a reasonable level of understanding for the general topic of climate change among the survey participants, and thus among mostly big and large SMEs in the MENA region. However, when it comes to details of climate change knowledge such as national or international policies and targets, the respondents considered themselves slightly less informed: just about 30%

report good or very good knowledge, whereas another third (28%) state their understanding is poor or basic (Figure 3b).

The main sources of climate change information are depicted in Figure 4. Most respondents rely on the media to obtain climate-related information, followed by international organizations such as the UNFCCC or IPCC. Academic research institutions as well as governmental sources are both referred to by less than 20% of respondents.

Figure 3 - a) above shows self-reporting of knowledge on climate change in general; b) below of knowledge on climate change policies and regulations

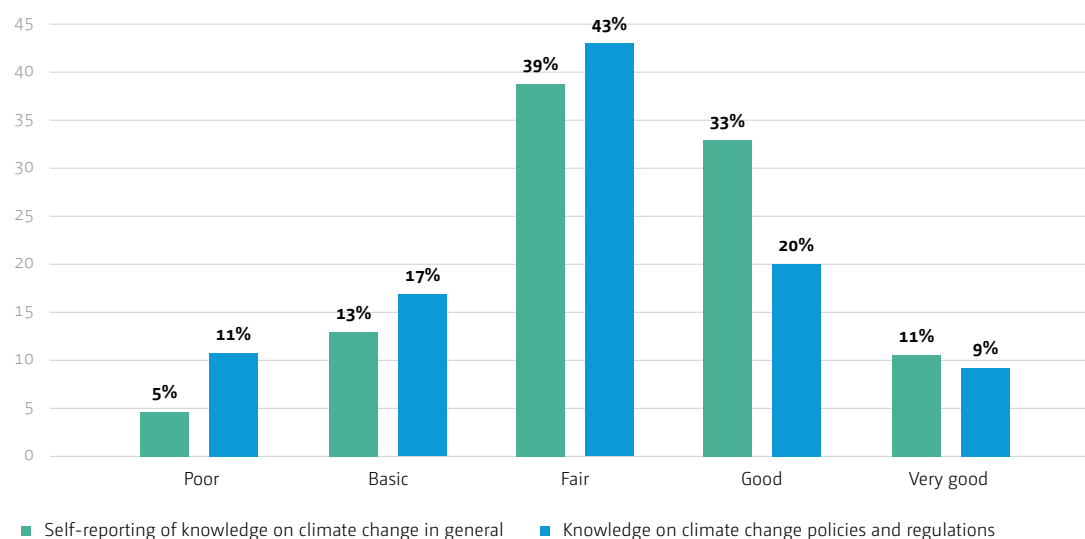
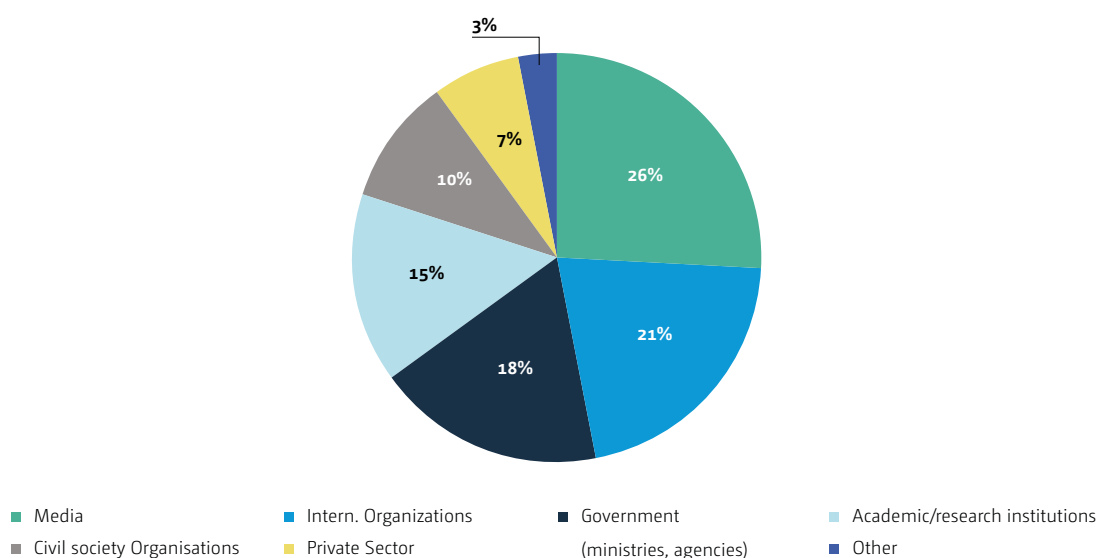


Figure 4 - Main sources of information on climate change as reported by respondents



4.2 Climate change action

In line with the sound knowledge levels reported by respondents, nearly 75% of respondents have integrated climate change aspects into their everyday business activities and/or strategic planning (Figure 5). Only around one fifth of respondents stated that climate change considerations do not play a role at all in their businesses. The different manners of integration below are more or less equally distributed across the responses:

- structured risk assessments in strategic plans and decisions
- dedicated focal points
- sustainability reporting/carbon footprinting.

When asked about climate action taken in the past, the large majority of respondents reported having implemented measures; only 1% of respondents has not taken any measures at all yet (Figure 6).

Figure 5 - Integration of climate change aspects into everyday business activities and/or strategic planning

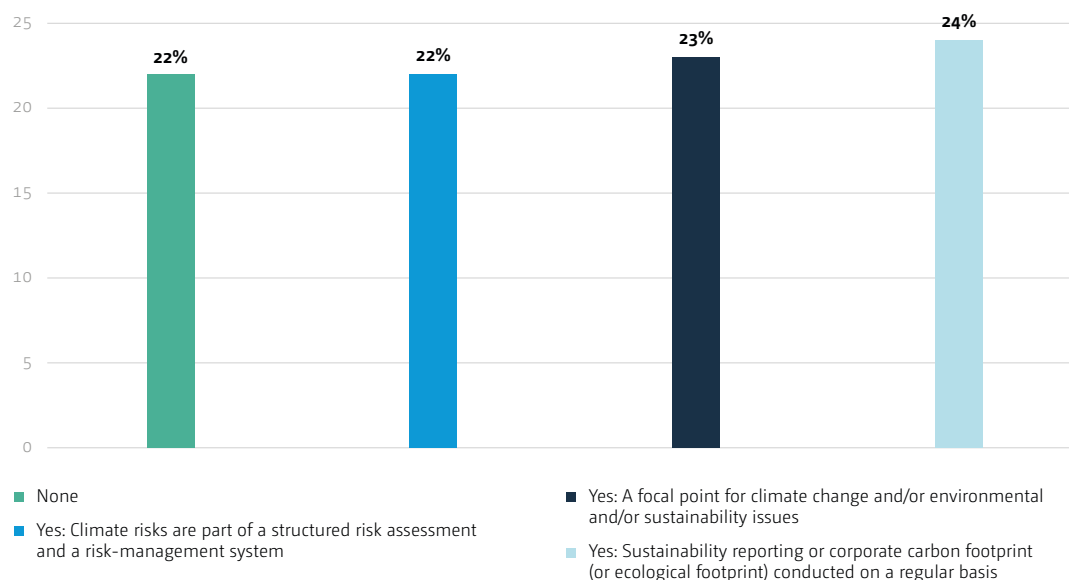
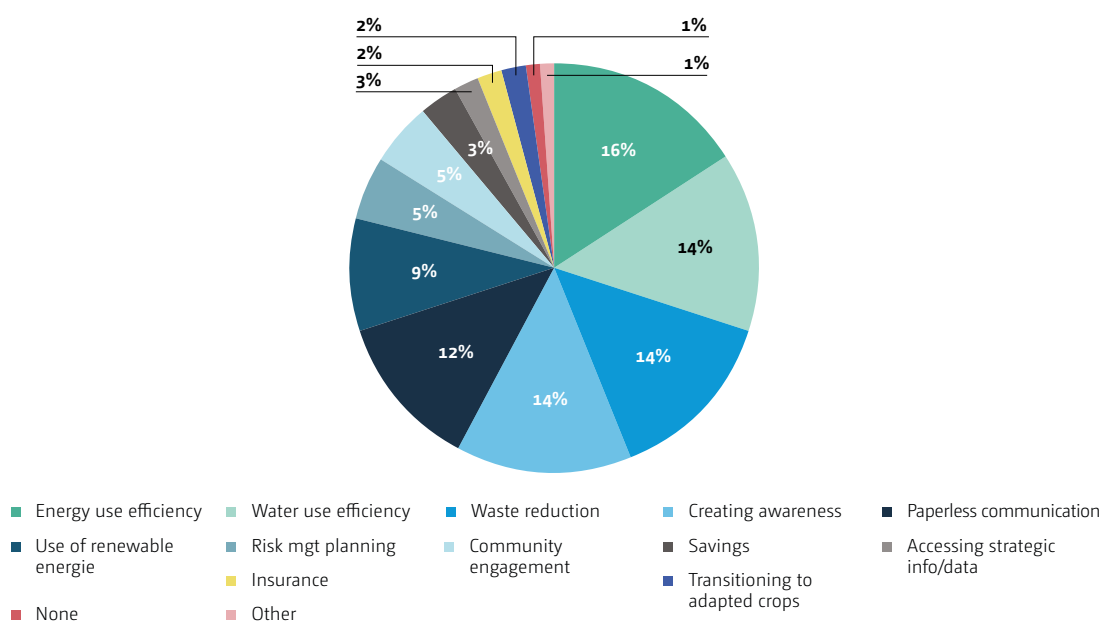


Figure 6 - Climate change mitigation and/or adaptation measures implemented by SMEs



In this context, energy efficiency measures are reported most commonly, followed by the creation of awareness among staff and surrounding communities. Water, waste and paper reduction measures are also popular, as they save financial resources at the same time. However, longer-term strategic measures, such as a structured risk assessment or taking out an insurance, are named by only a minority of respondents (i.e., 5% and 2%, respectively). Corporate social responsibility reasons or cost considerations were named by half of the respondents as driving factors behind the implementation of these measures (Figure 7). Other reasons included self-regulation or voluntary action within their industries or business sectors, as well as the wish to proactively increase resilience to climate change.

Compliance with legal requirements or regulations was named by only few respondents and seems not to be a decisive factor in fostering climate action by businesses/SMEs.

Compliance with regulations or domestic targets

This is in line with the finding that national climate change policies and targets do in most cases not affect respondents in their daily business affairs (44%). Only around 20% state they have to comply with climate regulations, whereas 22% actively contribute to climate targets, mainly through renewable energy use and energy efficiency measures, and 12% are involved in policy and target development processes (Figure 8).

Figure 7 - Motivation for taking mitigation / adaptation action in the past

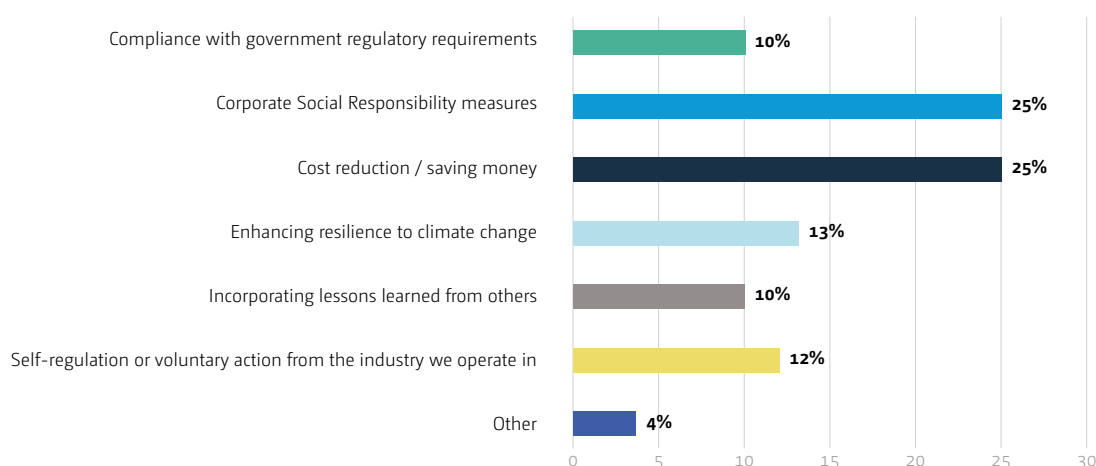
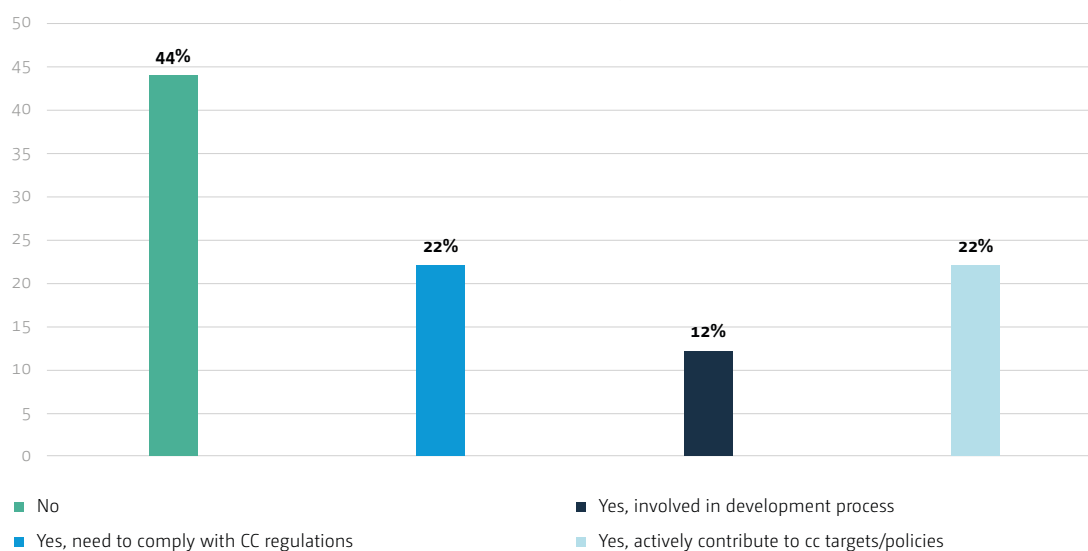


Figure 8 - Influence of national climate policies or targets on SME business operations



More than half of respondents are familiar with the term “carbon pricing”, and around 25% of these report domestic systems in their country of operations (including the Middle East and the Saudi Green Initiatives). Just over 10% are familiar with international carbon pricing schemes such as the EU ETS, UK ETS and Swiss ETS. Most respondents however state that they are not aware of any carbon pricing scheme in their country or neighboring countries in the region (Figure 9).

Incentives and support for voluntary carbon action

It appears that most respondents have taken action without receiving any direct incentives

or support for climate action. Over 50% of respondents are not aware of any incentives or support offered in their countries, whereas 23% report that free trainings and information are provided. Only 10% state that technical support is being offered to foster climate action in the private sector. Correspondingly, over 60% of respondents have not applied for or received any kind of (financial) support to implement climate action in the past. 13% received support from their government, and 10% from business partners, whereas support through bank loans, from NGOs or dedicated funds like the SME fund was almost not reported (Figure 10).

Figure 9 - Existence and awareness of carbon pricing schemes in the region

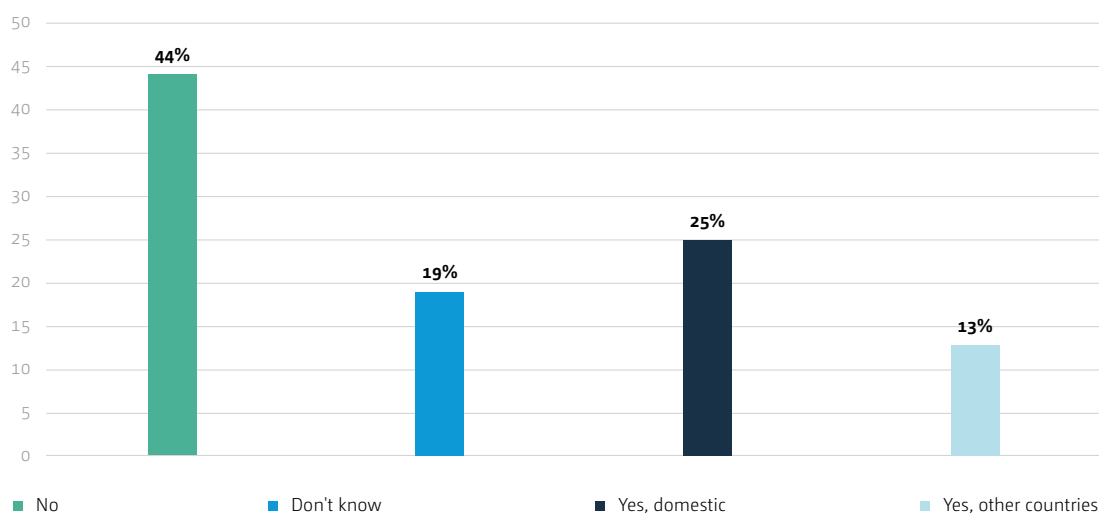
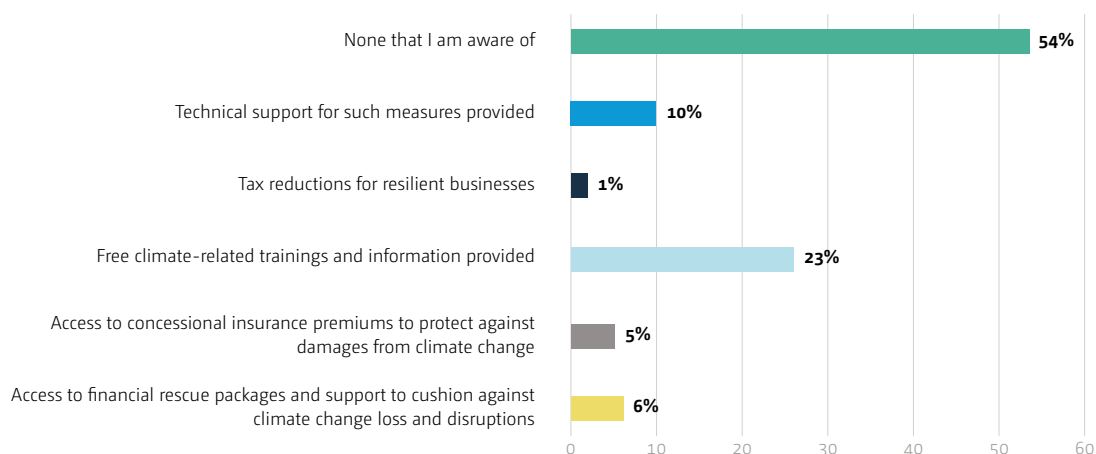


Figure 10 - Existing national or international incentives or public sector support for climate action by the private sector



4.3 Climate change knowledge gaps, information requirements and identified capacity-building needs by SMEs in the MENA region

When asked to **identify the main knowledge gaps that their organizations face in regard to climate change and adequate response measures**, responses addressed two main fields. In the first place, gaps were reported for very basic issues such as a general lack of awareness and concern in the wider society, a basic need for more information and communication, as well as a framework of government regulations that also include penalties.

A second field concerned more specific knowledge gaps in targeted areas. Issues named here include the understanding of concrete climate change impacts on specific business sectors and the respective risk assessments, followed by the need to identify feasible solutions and measures that can be taken. Several respondents said they lack credible data that could serve as a sound basis for taking decisions and action. Not least, a lack of problem awareness in the management was also stated as a major obstacle.

Respondents were then asked to state which sort of information or support they would need to be able to react to climate risks, take climate action and benefit from related financial opportunities.

Responses indicate three areas that need specific information and skills development (Figure 11):

1. Reliable information on impacts and trends, which can serve as a sound basis for decision making and planning (20%);
2. Training/information on actual measures and practical solutions that can be taken (17%);
3. Help with information on accessing financial resources and support for implementing such measures (13%).

Overall, the results indicate a slightly better information status of the English speakers, perhaps due to the fact that most international capacity building initiatives in the past were conducted in English. Indeed, whereas half of the English-speaking respondents have attended a climate change training in the past, only 30% of French speakers have done so.

These trainings covered mostly background information on climate change impacts and policies/regulations (in 73% of cases), whereas technical skills on product development³¹ or how to develop a financing proposal were covered in only 28% of cases.

31 Product development, as well as the need to develop resilient products, was named by two respondents in the open questions. Unfortunately, no further details were provided on what is meant here exactly.

Consequently, the reported training needs are largest in the provision of such technical skills (Figure 12). More than 60% of respondents thought that training should be provided on how to develop resilient products²⁹, and financial proposals to access finance (23% and 19%), as well as on climate finance sources (21%). Further training and information on general climate change background was considered important by 35% of respondents, including aspects such as likely scenarios and which changes to expect in the respective countries and regions, as well as

their impacts on the business sector. This picture coincides well with the knowledge gaps reported in Figure 11 above.

When it comes to the desired form of the training, a clear majority (42%) votes for online/remote trainings, whereas only 24% are interested in attending a conventional in-house training. Almost a quarter (23%) would be satisfied with receiving a handbook or manual to look up relevant questions, and 10% would appreciate a support hotline that can be called to get responses.

Figure 11 - Topics for capacity development and need for training as reported by respondents

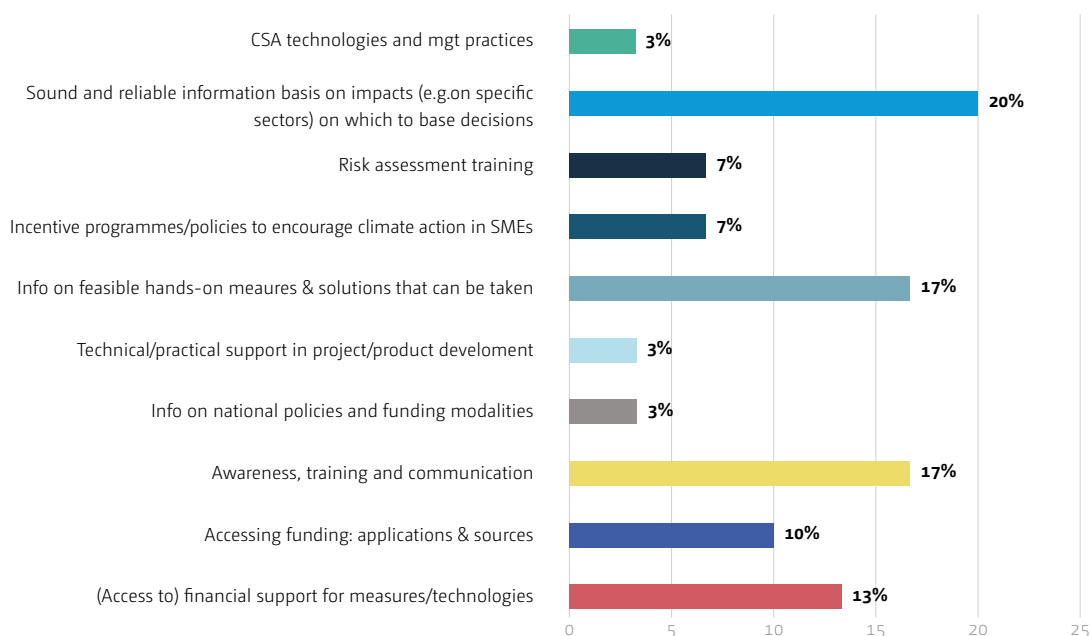
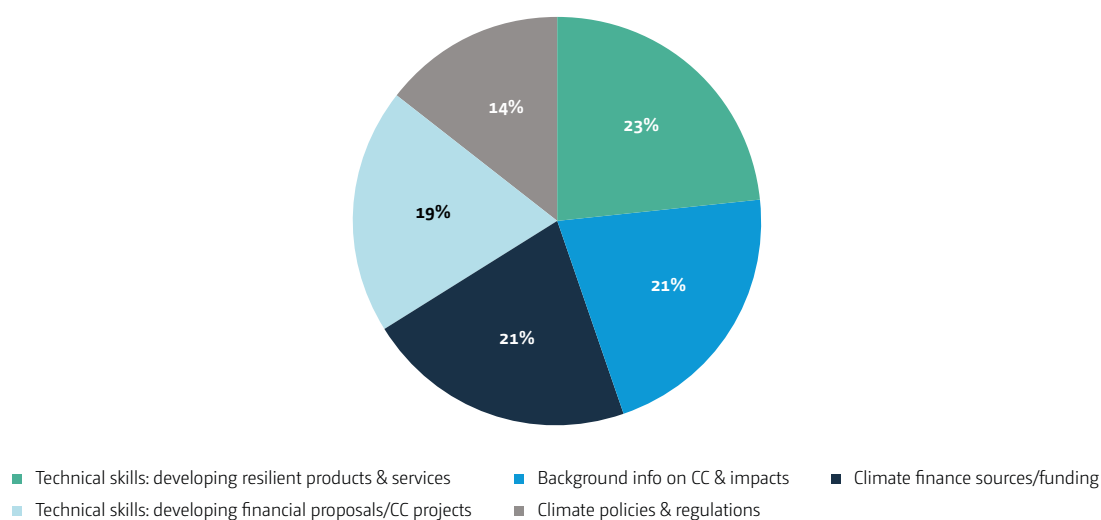
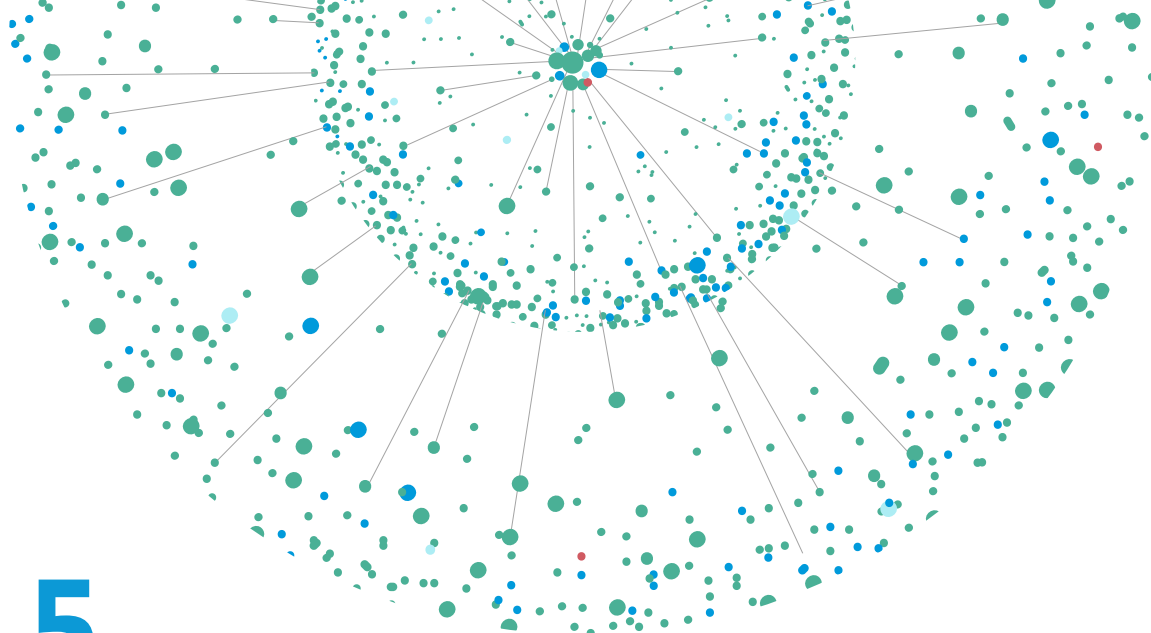


Figure 12 - Main areas in which SMEs in MENA require capacity building and training





5

Summary assessment & recommendations

5.1 Summary of survey results, comparison and integration with desk review

The key results from the survey can be summarized as follows:

- **General climate change knowledge, sustainability reporting, reactive measures & existing climate action**
 - A majority of respondents considers their general knowledge about climate change at least 'fair' or even good or very good.
 - More than half of the respondents do already conduct sustainability reporting or have climate change/sustainability focal points in their organizations. This is reflected in the motivation for implementing climate measures in the past: CSR is named most often, followed by cost reduction reasons. Interestingly, regulatory requirements are hardly mentioned by respondents as driving factors, while voluntary action in the respective industry is the third-most important reason.
- Reactive measures are already known and implemented by nearly all respondents, such as energy efficiency, water, waste and paper reduction measures next to awareness raising measures among staff and surrounding communities; whereas strategic measures such as risk assessment strategies and related risk measures and insurance against climate change impacts (incl. concessional insurance premiums financial rescue packages against climate change) are hardly mentioned.
- **Regulatory frameworks & incentive mechanisms**
 - Better information on (domestic) climate policy and targets, including regulatory requirements and related incentives for climate action by business is needed, as over half of the respondents are not aware of any incentives or support offered in their countries. Here one has to distinguish between a) the lack of legal and regulatory frameworks in the countries and b) the knowledge among the private sector what kind of laws or regulations as well as (economic) incentives are required. The former refers to overall existence of such frameworks for the establishment of

an enabling environment for private sector climate action, which is an issue in certain countries in the region as well, whereas the latter is about the actual level of knowledge about regulatory frameworks and incentive mechanisms to encourage private sector climate action (see below on training needs addressing the knowledge gap and how to lobby for the introduction of respective laws or regulations or reforms).

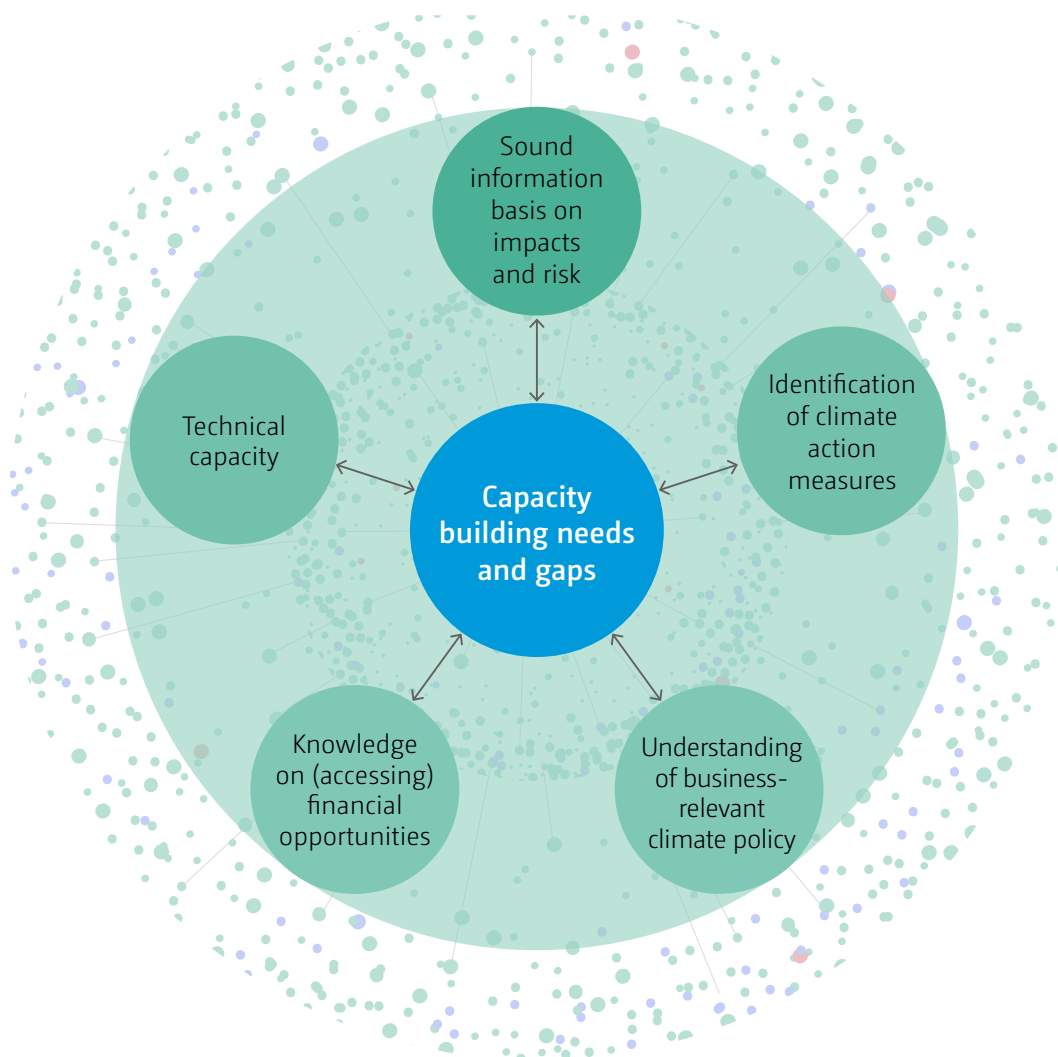
- About a quarter name free trainings offered and only a minority mentions offers of technical support for climate action for the private sector.
 - Not surprisingly, and in line with the abovementioned lack of regulations and incentives a majority of more than 60 percent of respondents have not received or applied for any kind of (financial) support for climate action, so far.
- **Climate policies, targets & carbon pricing**
 - There are still quite a number of countries in the region where the knowledge about climate policies and related targets among private sector and SME actors is quite limited. The understanding of and knowledge about carbon pricing systems is even more limited with only 50% of respondents knowing what the term refers to, and even less able to name examples of carbon pricing mechanisms. This despite the fact that one of the longest standing mechanism, the CDM, has been around for more than 15 years with the rules and regulations finalized during the COP in the MENA region, Morocco in 2005.
 - **Training**
 - So far, the majority of trainings in the region that the respondents attended covered largely background information on climate change impacts and policies and regulations, obviously there seems more depth needed going forwards with trainings, whereas a third of these trainings covered technical skills on product development and financing proposal developments. Consequently,

identified training needs focus predominantly on technical capacities, followed by more detailed background information on impacts on specific sectors and branches, as well as finance sources. The majority favors online and remote trainings, whereby about a fourth each vote for conventional in-house or face-to-face learning and handbooks and manuals.

- **Information requirements**

- The following three areas emerge with regard to the information or support needed by the SMEs to be able to react to climate risks, take climate action and benefit from related financial opportunities:
 - Reliable information on impacts and trends for decision making and planning
 - Training/information on actual measures and practical solutions, such as resilient products etc.
 - Information on accessing financial resources and support for implementing such measures

Overall, the findings from the survey confirmed the key knowledge gaps identified in the literature review: Most training needs arise in a) **technical capacities** for risk assessment, product development - making businesses and related processes and products more resilient or better positioned with respect to mitigation contributions - proposal writing; b) **sound data and figures** as basis for strategic planning and risk-assessment; c) identification and planning of **feasible climate measures**; d) the understanding of the concrete **(domestic) climate change context** in terms of policies, targets and regulations; and e) information on and access to financing options. The Figure below combines the knowledge gaps and capacity building needs identified in the literature review (inner circles, as presented in 3.1 above) and the survey (outer orange circles, with the line width corresponding to the number of responses for each issue).



5.2 Concluding recommendations

These concluding recommendations draw on the outcomes of the mappings study and consist of five main building blocks for a forthcoming strategy for the increased private sector climate action engagement and action in the MENA region as a whole and at the level of the individual countries. The needs of SMEs or all measures listed below should specifically pay attention to the needs of SMEs, including collaborating with organizations and agencies dedicated to SMEs, because corporates will usually have sustainability staff and related reporting in place or can easier buy or hire the required expertise. Bigger companies can certainly benefit from such a strategy and the implementation of a related action plan as well, if and as needed.

- Improving private sector capacities to contribute to higher climate ambition and collective actions
 - including the implementation of NDCs and NAPs
- Harnessing platforms and other engagement means to enable private sector climate action at different levels – drawing on the capacity-building initiatives and bringing increased capacities into action
- Promoting champions, i.e., countries and organizations within the countries, for the engagement of the private sector in climate actions

- Building on the state of play and understanding of the private sector on carbon pricing instruments
 - fostering an appetite for exploring adequate instruments
- Establishing coalitions or consortia for increased private sector climate action in the MENA region sector

Improve private sector capacities to contribute to higher climate ambition and collective actions – including the implementation of NDCs and NAPs

The following areas have been identified through this mapping study where further capacities need to be developed among the private sector players in the MENA region. We provide a brief justification for the need to empower private sector players in these areas, followed by what should be offered via trainings or courses from qualified academia, research or other expert organizations³². The scope of the mapping study did not allow for deep dives into the concrete offerings and their details with regard to what already may exist and what not. We believe, a lot/most what is outlined below is not available in a comprehensive and structured way, therefore would need to be full developed and integrated into the respective curriculums of academia and research organizations. This will need to be addressed during the implementation of the upcoming follow up strategy and a related action plan.

In general, the offerings in the below areas should contain the following: (comparative) analyses and reviews of countries and sectors in the countries in the MENA region and elsewhere internationally, including historical analyses, where examples and showcases already exist and that can serve as demonstrations to private players. Next to making sure the offerings are regularly updated, i.e., the underlying research constantly stays abreast with the latest climate policy developments, the landscape of actors and their actual and potential roles through collaboration and partnerships in advancing the engagement of SMEs and the private sector as a whole in climate action by means of enhancing their capacities should be analyzed and monitored from a scientific viewpoint.

Contributing to the creation of the required regulatory frameworks and incentive mechanisms to be put in place by the respective governments (incl. respective reforms)

- Why do private sector capacities need to be developed in this area? The knowledge about regulatory frameworks and incentive mechanisms is important, so that businesses understand what kind of conducive framework conditions and enabling environments governments can and need to create for improved, scaled up and meaningful climate action by the private sector. Such knowledge is needed to be able to become more proactive in this regard, including and in particular using the respective lobbying channels (see below) with a view to putting pressure on governments for putting in place these essential and required frameworks at the national levels for incentivizing and increasing private sector action.
- What should be offered via trainings or courses? Capacity development offerings in this area need to make private sector actors understand which (new) regulations or reformed laws or regulations are needed to incentivize or even require to some extent a change of doing business in a more climate-friendly way to contribute to emission reductions compared to a business-as-usual as well as to move towards more resilient and adapted processes, operations and production. Examples are the power and contents of an overarching climate law with enshrined mitigation and adaptation targets for different sectors of the economy or a feed-in tariff regulation to accelerate investments in renewable energies or water tariffs for encouraging more efficient use of water, for instance. Where and what for do such (economic) incentives or incentive mechanisms, such as tariffs, tax exemptions, subsidies, etc. exist and have been introduced and what effects they have or stimulate. What do such laws, regulations and (economic) incentives bring about, why and how does the private sector equally benefit and contribute?

32 Hereafter referred to as "offerings"

Implementing climate policies and related (sectoral) strategies, programmes and actions in the countries at the national and local levels

- Why do private sector capacities need to be developed in this area? The knowledge about climate policies and sector strategies, programmes and actions at the national and local levels is required so that private sector actors are aware of how they can contribute to their implementation, whilst being aware or convinced of how they may benefit from these at the same time. Furthermore, this knowledge is fundamental and a prerequisite for understanding and get to grips with other identified key areas:
 - meeting or contributing to meeting mitigation, resilience and adaptation targets at the business, local and national levels;
 - required regulatory frameworks and incentive mechanisms;
 - functions and workings of carbon pricing systems and mechanisms; and
 - technical skills on product development, financing proposal development & climate finance/funding sources.
- What should be offered via trainings or courses? Thorough, deep and comparative reviews and analyses of the respective national (and local) strategies, programmes and initiatives in the countries as well as internationally. The latter in particular with regard to more advanced countries to showcase what is possible, how and why. What kind of implementation strategies, approaches and activities have been applied in the past and up to now, distinguishing sectors and sub-sectors of the economy, and what has been successful and why? More specifically, private sector actors will need to know what governments at the national and local levels potentially may offer with regard to support programmes and initiatives (e.g., energy efficiency programmes in the housing sector/built environment or national climate smart agriculture programmes) and how individual companies and benefit from these as well as being part of implementing such programmes and initiatives. Similarly, there should be dedicated modules specifically looking at how more advanced (sectoral) strategies, programmes and actions can integrate and incentivize the use of Art. 6 market mechanisms in the short run, whilst already looking ahead with respect to integrating and supporting carbon budgets,

taxes or emissions trading systems. Here the integration of carbon pricing instruments into overarching policies and sectoral strategies and programmes should be reviewed and analysed, looking at countries in the EU, Asia, Africa or Latin America with regard to showcases, lessons learned etc., for example.

Developing technical skills on product/services development, financing proposal development & climate finance/funding sources

- Why do private sector capacities need to be developed? This is about (better) positioning their businesses better with respect to adaptation, resilience and GHG mitigation based on sound and cutting edge knowledge and related business strategies, on the one hand. Furthermore, identifying and accessing finance for implementing such measures, including technologies and practices related to mitigation measures, being able to scale up, replicate and grow with these opportunities (e.g., along value chains and with supply chains) is equally needed, on the other hand. The required investments into more resilient and GHG reducing processes and practices will often materialize when seed or co-finance can be mobilized.
- What should be offered via trainings or courses? What do businesses need to do to adapt their production processes or service lines or contribute to GHG emission reductions, looking beyond their own businesses and locations by integrating and involving their supply and value chains in the related strategies and approaches. Thoroughly and comparative reviews and analyses of relevant showcases in the region as well as from elsewhere outside the region need to be prepared to show and demonstrate what and how this can be done. This is about the avoidance of economic losses via adapted processes and practices, whilst looking into GHG emission reduction measures via improved processes and practices – including the application of related technologies, if and as applicable. The development of more long term business strategies in this regard should be fostered. The knowledge about the related (climate) finance opportunities and what needs to be done to access them, requires thorough reviews and analyses of climate-relevant or related funds, programmes and facilities by public and non-state actors and instruments such as loans, subsidies/ grants, carbon finance and further innovative finance (angel investors, impact investors, etc.).

Profound knowledge about the national and international climate finance landscapes and their workings needs to be offered.

Knowing the functions and workings of carbon pricing systems and mechanisms

- Why do private sector capacities need to be developed? The knowledge about such mechanisms and systems is needed to understand the functions and workings of carbon pricing in the context of incentivizing GHG emission reductions in the economy. Then private players can support or lobby for the development and deployment of carbon pricing systems and mechanisms in their countries, whilst knowing and preparing for positioning their businesses to benefit or comply with them, respectively.
- What should be offered via trainings or courses? Hence, profound and comparative analyses of existing systems and mechanisms (mainly outside the MENA region), such as emissions trading systems, carbon taxes or budgets, the CDM and the upcoming Art. 6 mechanism under the Paris Agreement (incl. pilot schemes) and the voluntary carbon market. This should include showing the effects and impacts of mandatory regulations and compliance and voluntary measures in the different economic sectors as well as with respect to sequencing the different carbon pricing mechanisms and systems in the MENA region and its countries by looking into experiences elsewhere at the international level.

Enabling to meeting and contributing meeting mitigation, resilience and adaptation targets at the business, local and national levels (incl. sustainability reporting, carbon or environmental footprints & risk assessment, management and mitigation measures)

- Why do private sector capacities need to be developed in this area? Private sector players, including and in particular SMEs, need to be empowered to understand the workings behind tracking, measuring and reporting GHGs emissions as well as adaptive or resilience measures with a view to put in place related systems. Then they are enabled to track, monitor and report measurable contributions against related own SDG or similar business or CSR targets and feed their measurable contributions into local and national level government climate action monitoring against respective targets, such as NDC and NAP targets. GHG accounting and related methodologies and measuring,

monitoring and reporting GHG emissions and emission reductions is also needed for projects or programmes under Art. 6 market mechanisms, for the voluntary market as well as and even more so when participating in the higher tier systems, i.e., emissions trading systems (see also above and below).

- What should be offered via trainings or courses? What kind of accounting or measurement, monitoring and reporting systems do need to have in place to track, monitor and report measurable contributions against own targets and be able to report contributions towards local and national level targets? This requires a thorough review and analysis at the regional/MENA and international levels – looking at examples of companies that already apply or work with GHG accounting and tracking systems trained by institutes such as the GHG Management Institute and reporting as part of the Carbon Disclosure Project (CDP), for example. Offerings should include analyses of the workings behind these systems in different sectors and situations or circumstances in different countries, so that this understanding helps to see how they can adequately integrate them into their operations, including simple or more complex in-house solutions as well as (partly) outsourcing solutions – keeping in mind that SMEs may have limitations with regard to the overall complexity and automation via sophisticated IT solutions compared to large® corporates. Again, the comparative analysis and related knowledge about the underlying workings provided by respective academia and research organizations should include GHG emission scopes, SMART indicators etc.) of GHG accounting – reviewing and analysing local and international examples for illustration and education purposes - as well as how to measure and report on adaptation and resilience measures. For example, proper showcases taking the GHG emission scopes angle will look at supply chains and end users. This may or should lead to spillovers for maximum impact driven by businesses themselves in the case of GHG emission reductions as well as resilience and adaptation measures in the respective sectors with a long(er) term perspective.

On the one hand, courses should also integrate the knowledge about abovementioned tracking, measurement and monitoring and reporting of GHG emissions and adaptation or resilience measures with sustainability reporting and related measures such carbon or environmental footprints and related countermeasures and

compensation measures (see above on SDG and CSR reporting). On the other hand, this should lead to covering risk assessment and management and mitigation measures, incl. insurance against climate change impacts, for example, as both areas require better capacities, according to the survey.

Harness platforms and other engagement means to enable private sector climate action at different levels – bringing increased capacities into action

Which players are needed to cooperate and provide a seamless chain, bringing the theoretical knowledge gained by private sector players into measurable climate actions and contributions to NDCs and NAPs?

The following key actors are required and what for:

- Academia & research organizations (incl. specialized/expert organizations/NGOs and private institutions): Provision of offerings about regulatory frameworks and incentive mechanisms, climate policies and related (sectoral) strategies, programmes and actions, technical skills on product/services development, financing proposal development and climate finance/funding sources, carbon pricing systems and mechanisms and mitigation, resilience and adaptation targets (see above).
- Associations & umbrella organizations (at the national & regional/international level):
 - Linking the businesses in the respective sectors with their increased knowledge and capacities to the implementation of government strategies, programmes and actions, such as the NDCs and NAPs together with any sector-specific measures, if and as applicable.
 - Lobbying for required frameworks and enabling environments to encourage, incentives and regulate private sector climate action.
- UN or international organizations (such as UNFCCC secretariat and RCC MENA&SA or Global Compact and CDP): Moderation and facilitation of the required processes, bringing together the different actor groups as well as provision of complementary technical and financial assistance and practical regional and international experience and expertise.
- Governments: Connecting with the government-led processes such as to contribute to NDC and NAP implementation and achieving related targets at the national and local levels, requires coordination and collaborations with the respective sector ministries and related agencies at the national levels and local government institutions as well.

Below more details on their specific roles.

The role of academia & research organizations³³

- See above under offerings in the mentioned areas

The role of associations & umbrella groups (local/national and regional)³⁴

- First, the concrete engagement and engagement processes need to be organized to enable the private sector, in particular SMEs, to bring the fresh or new and theoretical knowledge into action, so that the private sector's contributions will materialize as measurable contributions to NDC and NAP implementations. Doing so goes beyond the mandates, knowledge and skills of academia and most research organizations as well as government organizations and agencies cannot replace the knowledge, networks and memberships and the standing of business associations and other umbrella groups among their members and private sector actors, in general. There may be exceptions in this regard in the case of applied research/expert organizations in the private sector or the NGO ecosystem. Therefore, the engagement and linking will need to be handled by business associations in the relevant sectors and subsectors.
- Second, associations are best positioned and usually mandated with lobbying for the required legal and regulatory frameworks or reforms and related incentive mechanisms and support programmes and measures. This will actually go hand in hand with mobilizing and engaging the private sector for climate action and contributions to the implementation of the national and local government strategies, programmes and action plans.
- Last but not least, such groups can play an important role in data aggregation and provision and in the context of monitoring and reporting of private sector actor action in the respective sectors (see also below with regard to CDP).

³³ See Annex with a list that can serve as a basis for first approaches and discussions for starters

³⁴ Ibid.

The role of UN or international organizations & linking up with the relevant government-led processes

- Bringing the different actors together requires or will greatly benefit from neutral facilitation and moderation, which is a “traditional” role and part of the mandates of UN and international organizations. In particular, channeling private sector action into or linking business activities effectively to government plans and related programmes and measures, so that both march in the same direction towards meeting NDC and NAP targets requires coordinated and harmonized approaches and measures and communication and exchange about the What and How in the climate-relevant sectors. Here, the processes in the countries can benefit a lot from an experienced and skilled facilitator, bringing relevant experiences or showcases from elsewhere to the table, such as the UNFCCC secretariat in collaboration with RCC MENA&SA.
- Collaborations or consortia of research organizations and relevant, sector-specific business associations should be sought after or initiated and supported by the UN and other international organizations (see below). The above analysis from academia should be taken into account and used as part of developing business sector strategies or private sector engagement and implementation strategies in conjunction with the respective trained personnel and in consultation with the respective national and local governments. This applies to the national and local sectoral levels, facilitated by associations or similar umbrella groups. The Global Compact and CDP can bring their private sector actor portfolios to the table. There are private sector actors in the countries in the MENA region and elsewhere, already familiar with relevant processes such as green business agendas and strategies, SDG and carbon footprint or GHG emissions and CSR reporting which may serve as examples – complementary regional and international practical experiences and expertise showcasing - to convince more private sector players to follow suit.
- Furthermore, the sector strategies and implementation plans for the private sector, specifically taking into account the needs of SMEs, need to be tailored to the countries’ needs with regard to what is laid out in the NDCs and NAPs with a view to effectively contribute to achieving mitigation and

adaptation measures and related targets.

Again, the UNFCCC secretariat in collaboration with RCC MENA&SA are very well positioned to facilitate and moderate these processes, bringing in experiences from countries or regions more advanced in this regard or otherwise useful inputs, acting as an intermediary.

- In addition, the UN organizations such as the UNFCCC secretariat in collaboration with RCC MENA&SA and further experts (potentially including other international organizations like CDP and the Global Compact amongst other) can organize and conduct targeted capacity building initiatives that will provide practical knowledge or skills, complementing the more profound knowledge and learning provided by academia and other research organizations. Again, bringing examples and showcases from the region and elsewhere to the process can be organized by the UN organizations, whilst making sure the needs of SMEs are taken into account.

The role of government organizations and agencies at the national and local levels³⁵

- Primarily, government organizations are mandated with the establishment of the required enabling environment in the context of private sector engagement, including and in particular the legal and regulatory frameworks and related incentive mechanisms and support programmes for stimulating and encouraging the needed private sector engagement. In certain countries in the region an overarching climate change and policy institutional framework and architecture is still missing or largely incomplete, which often hinders progress with regard to what the governments are able to do. This is another area where UN and international organizations can be of help with assisting in establishing the required frameworks and related processes and systems (see also above).
- The respective ministries and agencies or offices at the national and local levels, respectively, are the needed contacts and partners for the associations representing their members, the companies in the respective sectors, in particular with respect to lobbying for the required regulatory frameworks and incentive mechanism and support programmes. This will involve reaching out to and engaging with relevant, existing support programmes and funds in the countries (e.g., Khalifa Fund for Enterprise Development

³⁵ See Annex C with the country profiles that can serve as a basis for first approaches and discussions for starters

Abu Dhabi, UAE; Taqeeem Academy, Saudi Arabia; National Fund for the Promotion and Development of SMEs, Kuwait; Kafalat Energy Programme, Lebanon; Lebanon Energy Efficiency and Renewable Energy Finance Facility, Lebanon).

- The respective government organizations, agencies and offices are also the counterparts for UN and other international organizations. This is with a view to their support measures to align and properly connect the private sector climate actions to the implementation of the NDCs and NAPs, for example, such as through bringing experiences in this regard from elsewhere next to the capacity building initiatives conducted by the UN and other international organizations.
- In particular, dedicated SME agencies and organizations should be involved, if and where they exist, such as MSME Development Agency, Egypt; Jordan Enterprise Development Corporation, Jordan; or TAMKEEN, Bahrain aside from the ministries in charge of industries and businesses.

Promote champions, i.e., countries and organizations within the countries, for the engagement of the private sector in climate actions

Which countries in the MENA region can be seen as or become champions in the region, providing showcases for other countries and organizations in the countries? The following countries have benefitted from capacity building measures, building or strengthening the foundation of private sectors actors and SMEs in the context of climate action engagement in the MENA region, by bilateral or multilateral organizations in the last few years more than other countries in the region (see Sections 3.2 & 3.3 above). Furthermore, the data availability with regard to SMEs as well as related private sector capacity building gaps and needs is better compare to the other countries in the region, at least what could be revealed within the scope of this mapping study. The latter (gaps and needs) applies to Morocco and Lebanon at least (see Section 3.3 above).

- Morocco: Several initiatives were implemented, mostly of broader nature but including the private or even SMEs in the green growth, water or land use sectors as well as the CAMENA climate action envelope.
- Egypt: Despite the CAMENA activities two

initiatives by KfW and the GEFF focussed on SMEs next to relevant broader measures under the SEMed Private Renewable Energy Framework (SPREF), including companies.

- Jordan: Jordan also benefitted from CAMENA and SPREF as well as private sector actors were approached in the water sector as part of a broader water capacity building programme.
- Tunisia: Next to CAMENA, SPREF, either broader or even targeted water and land use sector capacity building measures have been implemented.
- Lebanon: Showcasing a certain leadership in a conflict-ridden environment even, Lebanon has also participated or participates in SPREF and CAMENA and also benefitted from broader initiatives in the water and land use sectors³⁶.
- Palestine: Equally, in a conflict-ridden situation CAMENA operates in Palestine as well as a broader water integrity capacity building programmes served also Palestine³⁷.

What is needed or sought after in the context of this private sector capacity mapping study are research organizations that have existing, first and relevant curriculums in (a) technical/ knowledge area(s) relevant to private sector engagement in climate actions. In the following we present examples and first indications of such existing flagship research organizations in the identified champion countries in the context of this mapping study, applying the previously introduced broader definition of research organizations. Some may be in the position to cover many of the relevant capacity building (and mobilization and engagement aspects) in the different sectors, whereas others may only cover specific aspects or sectors, for instance (see also Annex D):

- Morocco: Climate Change Competence Centre (4C) – Collège Secteur Prive (CSP), Climate Initiative for Morocco Enterprises (IECM), University Ibn Tofail
- Palestine: Applied Research Institute Jerusalem (ARIJ), Palestine Technical University, Al Quds Open University, Palestinian Energy Environment Research Center
- Lebanon: Lebanese American University (LAU), Islamic University of Lebanon
- Egypt: SME Unit at the Egyptian Banking Institute
- Jordan: Jordan Enterprise Development Corporation (JEDCO)
- Tunisia: University of Carthage, Institut National Agronomique de Tunisie (INAT)

³⁶ The assessment of the position of the country relates to the matter at hand, i.e., climate action related capacity development initiatives with a link to private sector engagement, only.

³⁷ See above footnote

Build on the state of play and understanding of the private sector on carbon pricing instruments - fostering an appetite for exploring adequate instruments

The abovementioned trainings to be provided by qualified academia and research organizations, i.e., directly related to carbon pricing instruments as well as the related other topics such as on regulatory frameworks and incentives and meeting mitigation, resilience and adaptation targets, should foster the appetite for asking or demanding carbon pricing instruments and climate action incentive mechanisms among private sector players in the countries in the MENA region. The interaction and the collaborations and coalitions (see below) between UN and international organizations, business associations and academia or research organizations should allow and push for making progress on both ends, the private sector and the governments within a few years, because increasing climate action by the private sector cannot wait another decade. These processes should be pursued with a long(er) term perspective, i.e., with strategies for moving from Art. 6 market mechanisms to the next stages, such as carbon budgets in sectors, carbon taxes and finally emission trading systems, if and as applicable.

Recalling the lack of experiences or the MENA region having not benefitted much from the first “entry level” market mechanism or carbon pricing instrument, the CDM under the Kyoto Protocol, nor is the region active a lot in the voluntary market compared to other regions, the road to full-fledged emissions trading schemes is long. This means the basic underlying foundation for carbon pricing instruments among private sector actors may be built now, but applying a broader, more long-term perspective as mentioned above. Supporting the participation in Art. 6 activities, i.e., 6.4, as well as related accompanying incentive mechanisms in the regulatory frameworks may probably be asked for in the beginning. Before the majority of the countries in the region is ready for advanced instruments such as carbon budgets or taxes and eventually emissions trading systems, reaping rewards from (Art. 6) market mechanisms will probably be needed first to (re)establish trust and confidence in carbon pricing instruments – paying the way for the advanced instruments at the same time. Again, UN organizations can contribute to making sure the needs of SMEs are taken into account as small(er) companies may face difficulties to engage in Art. 6 activities on their own.

When considering countries in the MENA region that could become champions when receiving related financial and technical assistance to build on and further carbon pricing instruments for private sector mitigation action with a view to other countries following suit, the following countries can be mentioned. There is even a certain level of differentiation between different carbon pricing instruments or what the different countries currently pursue or pilot or actually look at (see also Section 2.3 above):

- Morocco: building on or complementing first steps taken in country with regard to carbon tax and crediting mechanisms related educational offerings or modules for private sector actors could be developed for starters.
- Tunisia: the country looks into removing energy subsidies to disincentivize certain energy productions as well as introducing a carbon price.
- Jordan: preparations for Art. 6 market mechanism participation are underway, including looking at the role of market mechanisms in the context of the built environment. Similarly, this would be an entry point for capacity building measures with the private sector, maybe starting with the building sector.

Establish coalitions and consortia for increased private sector climate action in the MENA region sector – allowing moving forward swiftly in a climate change hotspot

Last but not least, an important building block of a forthcoming private sector climate action engagement strategy in the region should be the creation of coalitions and consortia to allow moving forward swiftly. In particular, the MENA region is a major climate change hotspot already³⁸, which does not allow for lengthy and slow processes lasting another decade without significant and measurable progress. Organizations like the UNFCCC secretariat and RCC MENA&SA can be of help in this regard as well, in particular when mobilizing and deploying targeted financial and technical assistance to support and accompany the required processes (see also above). Furthermore, they can put such assistance to work to trigger or promote snowball effects in the sectors in the countries with regard to both: more companies making use of the new capacity development offerings by research organizations and academia as well as starting

38 The draft of the 6th IPCC Assessment Report (2021) confirms and stresses this fact, underpinned by the latest scientific assessments.

to establish processes, procedures and systems to proactively engage in climate actions.

Building coalitions at the national and regional levels & organizing exchange³⁹

Coalitions of the willing or climate clubs should be created with countries and related groups of actors (governments, private sector & associations, and academia and research organizations) that are willing to become first movers with regard to increased private sector engagement and climate action. This ties in with and should be linked to respective consortia to be created in the countries, at best as parallel processes, making governments moving faster or move at all in the first place (see below).

Making this a manageable effort in the beginning such undertaking may focus on (a) certain sector(s) in the respective countries at first, which will need to be determined by further assessments of the landscape of relevant actors with respect to where to find fertile ground. Where to go in this regard for starters may be determined by looking at the above lists of countries and the list with actors and stakeholders in the annexes.

These undertakings can tie in with the abovementioned support role and assistance by the UN and further international organizations with regard to supporting the required strategy developments and implementation, via targeted trainings and capacity building measures and bringing experiences and showcases from the region and elsewhere to the processes at the regional level. Existing regional forums could be used for doing so, piggybacking on related meetings, or a new forum with a focus on private sector climate action may be created.

Establishing consortia at the national and local levels⁴⁰

Collaborations or consortia of research organizations and relevant, sector-specific business and industry associations – representing the actual

private sector actors (incl. SMEs) and their needs in the context of increasing climate action - should be sought after and initiated at the national and local levels. On the one hand, this is important with a view to moving forward swiftly and convincing enough, combining business-minded, practical strategies with or backed by sound and cutting edge science and putting pressure on the governments to act on enabling increased private sector climate action in their countries.

On the other hand, such consortia should also facilitate the actual private sector actors in the countries moving forward with developing and implementing the required business strategies. The associations are needed to help with addressing entire (sub)sectors or localities with regard to bringing theoretical knowledge into action and actionable measures on the ground. This is about supporting the implementation of the business strategies at scale as this goes beyond what research organizations and academia cannot help doing as this is beyond their mandates and expertise.

Again, such consortia can with the assistance of the UN and international organizations (e.g., UNFCCC and RCC MENA&SA, potentially in collaboration with CDP and/or the Global Compact) a) be created, and b) be used as platforms to organize series of trainings, workshops and exchange meetings at the national and regional levels (see above). Such events can also be used for bring the different groups of actors together, in particular the private sector, academia and research organizations and government organizations to jointly discuss, formulate or draft the required elements of the enabling environment. Specifically, these discussions may be used to pave the way for the needed regulatory frameworks, incentive mechanisms and support programmes. Furthermore, joint learning and the establishment of required networks and partnerships may be facilitated through such events.

39 See annex with lists and country profiles that can serve as a basis for first approaches and discussions for starters

40 Ibid.

Annex A

Survey questions

The survey was structured in four thematical parts: A) Background information, B) Questions on climate change knowledge and action, and C) on domestic policies and regulations, trainings and capacity needs. The English questions are presented below; the same questions were asked in the French version of the survey.

A. Background information on respondents

1. Which country are you based in?
2. Which sector is your business in? Select:
 - ☐ Agriculture and Livestock
 - ☐ Construction
 - ☐ Finance and insurance Services
 - ☐ Forestry
 - ☐ Manufacturing (including mining)
 - ☐ Marine and Fisheries
 - ☐ Small-scale informal traders
 - ☐ Tourism: Hotel, restaurants, bar, touring
 - ☐ Transport
 - ☐ Wholesale and retail
 - ☐ Other sector (specify)
3. Please indicate the size of your business: 1-2; 3-5; 6-20; 21-50; 51-100; >100; 100-250 employees

B. Climate change knowledge & action

4. In your country of operation, where do you currently receive information on climate change?
 - ☐ Academic and research Institutions
 - ☐ Civil Society Organizations
 - ☐ Government ministries and agencies
 - ☐ International organizations
 - ☐ Media
 - ☐ Private Sector
 - ☐ Others (specify)
5. Please rank your knowledge about climate change, its impacts and related risks to your business
 - ☐ 1= poor 2=basic 3=fair; 4= good; 5= very good
6. Are climatic aspects integrated into everyday business activities and/or strategic planning?
 - ☐ Structured risk assessment and a risk-management system;
 - ☐ Climate change/sustainability focal point;
 - ☐ Sustainability reporting, corporate carbon footprint
 - ☐ No
 - ☐ Other:

7. Have you implemented any of the below measures in your organization, to reduce emissions or adapt to climate changes:
- ☐ Energy use efficiency, for example: energy saving appliances or switching off lights when not in use
 - ☐ Use of renewable energies to power your business
 - ☐ Water use efficiency
 - ☐ Less polluting transportation use: bike instead of car or lorry
 - ☐ Paperless communication
 - ☐ Waste reduction
 - ☐ Accessing climate change prediction information
 - ☐ Taking out insurance for losses and disruptions associated with climate change
 - ☐ Risk management planning
 - ☐ Creating awareness amongst staff
 - ☐ Community engagement on issues that build their resilience e.g., improving roads, water sources, product value addition
 - ☐ Planting trees in business premises
 - ☐ Saving resources for emergencies
 - ☐ Transitioning to drought resistant crops
 - ☐ Others:
 - ☐ No
8. Why have you taken the measures named above?
- ☐ Compliance with government regulatory requirements
 - ☐ Corporate Social Responsibility measures
 - ☐ Cost reduction / saving money
 - ☐ Enhancing our resilience to climate change
 - ☐ Incorporating lessons learnt from others
 - ☐ Self-regulation from the industry or sector we operate in
 - ☐ Other:
9. Which incentives exist to support you to take climate action as a business?
- ☐ Access to financial rescue packages and support to cushion against climate change loss and disruptions
 - ☐ Access to concessional insurance premiums to protect against damages from climate change
 - ☐ Free climate related trainings and information
 - ☐ Tax reductions/exemptions in events of climate damages
 - ☐ Technical support in improving community resilience
 - ☐ None that I am aware of
10. Have you ever applied for or received any kind of support to implement climate measures?
- ☐ No
 - ☐ Yes, from
 - Government
 - SME fund
 - NGOs
 - Colleagues
 - Business partners
 - Bank loans
 - Bilateral/multilateral donors.
 - Other:

C. Domestic policies and regulations, trainings and capacity needs

11. Please rank your knowledge about climate change policies and/or emission reduction targets that your country has made to the UNFCCC or domestically (Nationally Determined Contribution, National adaptation action Plan, national climate change laws and policies)?
 - ☐ 1= poor 2=basic 3=fair; 4= good; 5= very good
12. Do these national policies or targets affect your business in any way?
 - ☐ My business was involved as a stakeholder in the development of these policies
 - ☐ My business actively contributes to implementing climate targets/policies
 - ☐ My business has to comply with regulations for climate change
 - ☐ No, my business is not affected
13. Please briefly state which targets/policies affect your business and/or how your business contributes to implement them
14. Are you familiar with the concept of carbon pricing?
15. Is there such a system in your country or are you aware of the existence of such systems in other countries? Please name them
16. In your view, what are the main knowledge gaps your organization faces with regard to climate change and adequate response measures to its impacts?
17. Has your company or staff in the past participated in any trainings, courses or similar measures about climate change and related countermeasures or actions that can be taken?
 - ☐ No
 - ☐ Yes- please identify the topic
 - Up to date and reliable information on climate trends
 - Technical skills on developing climate resilient products and services
 - Knowledge on drafting financing proposals on climate change
 - Knowledge on climate policies and regulations
 - Climate financing sources
 - Others:
18. In which field would you see major training needs?
 - ☐ Background information on climate change and projected impacts
 - ☐ Knowledge on climate policies and regulations
 - ☐ Technical skills on developing climate resilient products and services
 - ☐ Knowledge on drafting financial proposals on climate change projects
 - ☐ Climate finance sources and funding available
19. Which options or set-up would you prefer for a training course:
 - ☐ Classical in-house training programme (face-to-face)
 - ☐ Remote (online) training or guided self-study course
 - ☐ Handbooks or manuals with practical examples
 - ☐ A support hotline to ask targeted questions
 - ☐ Other:
20. Summarizing, which sort of information or support would you need to be able to react to climate risks and/or contribute to mitigate climate change and benefit from related financial opportunities?

Annex B

List of associations & umbrella groups contacted

In addition to the list of associations/organizations listed below, Global Compact and CDP were also contacted and shared the survey with their respective networks. RCC MENA&SA shared the survey with their local networks in UAE, Lebanon, Jordan, Egypt, Tunisia, and Morocco calling on them to circulate within their own channels to reach the private sector. Finally, the consultant also used its networks in the MENA (Morocco, Algeria, Lebanon, Palestine and Jordan).

Association/Federations	Country	Sector
MSME Development Agency	Egypt	Minister of Trade and Industry
Egyptian Banking Institute: SME Unit	Egypt	Training for SMEs
Jordan Enterprise Development Corporation (JEDCO),	Jordan	Technical assistance and access to finance for SMEs
TAMKEEN	Bahrain	SME development tools
Association TPE PME du Centre du Maroc (NGO)	Morocco	SMEs – micro companies
CGEM - la confédération générale des entreprises du Maroc	Morocco	Private association
Association Professionnelle des fabricants d'Huile du Maroc	Morocco	Agro industry / Oil sector
Fédération Interprofessionnelle du Secteur Avicole au Maroc	Morocco	Poultry industry
Fédération des Industries de Transformation et de Valorisation des Produits de la Pêche	Morocco	Exploitation of fishery products
Jordan Europe Business Association (JEBA)	Jordan	Business association (all sectors)
MENA BUSINESSWOMEN'S NETWORK	Jordan	Business network
Ademe - Association Tunisienne de Développement des Micro-Entreprises	Tunisia	Association for very small businesses owned by women (NGO)
UTICA, Union Tunisienne de l'industrie, du commerce et de l'artisanat	Tunisia	Industry, Commerce, Services, Crafts and Small Trades
Association Tunisienne d'Agriculture Environnementale	Tunisia	Agriculture
Association eau et développement	Tunisia	Water
MESIA - Middle East Solar Industry Association FZE	MENA	Promotes solar power in middle east
Arab Countries Water Utilities Association (ACWUA)	Arab countries	Water supply and wastewater utilities in Arab countries

Association/Federations	Country	Sector
Lebanese Association For Agriculture	Lebanon	Agriculture
BUTEC Utility Services (BUS)	Lebanon	Private sector – Electricity
SOLARNET	Lebanon	Solar & biomass
ME Green	Lebanon	Solar, thermal, wind
GreeNberry Biogas	Lebanon	Biogas
Kafalat Energy Programme	Lebanon	Energy
Lebanon Energy Efficiency and Renewable Energy Finance Facility (LEEREFF)	Lebanon	Energy
Oman water society	Oman	Water management, water supply and water projects
Clean energy business council	MENA	Energy
ECOMENA	MENA	Environmental hub in the MENA
MENA BUSINESSWOMEN'S NETWORK	Jordan	Business network
The Gaza Urban and Peri-Urban	Palestine	Agriculture resilience, multi-stakeholders
Agriculture Platform- GUPAP Arab Forum for Environment and Development (AFED)	MENA	NGO: Corporate environmental sustainability; environmental education, legislation, communication and awareness-raising
Enterprise Qatar	Qatar	SME support & capacity development
National Business Center	Oman	
Dubai SME	UAE	SME
Khalifa Fund For enterprise development Abu Dhabi	UAE	SMEs
Taqeem Academy	Saudi Arabia	Govt. program
Kuwait Institute for Scientific Research	Kuwait	Research (one topic:SMEs)
National Fund for the Promotion and Development of SMEs in Kuwait	Kuwait	Government agency for SME promotion & training

Annex C

Country profiles

Egypt

Climate change impacts in Egypt will be most strongly felt in the Nile delta, with water flow fluctuations and sea level rise/inundation of the coastal areas as the main issues. Across Egypt, the most vulnerable sectors include agriculture, coastal zones, aqua-culture and fisheries, water resources, human habitat and settlements, and human health (UNDP 2018).

MSMEs

2017

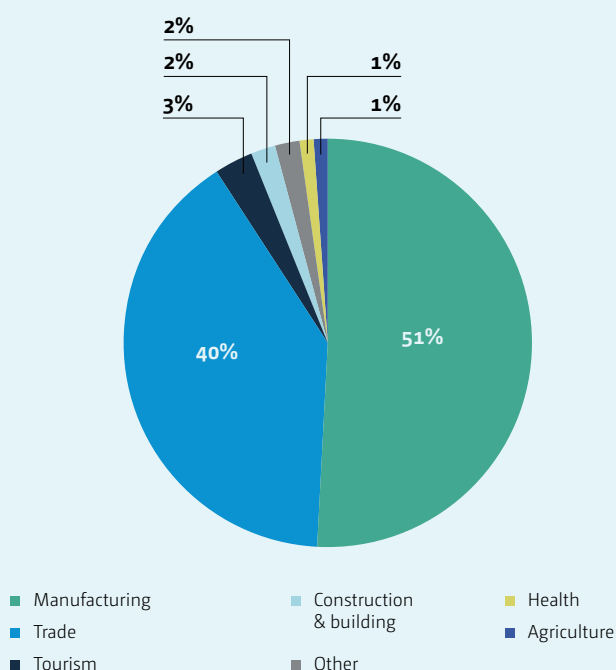
3.8 MLN
TOTAL BUSINESSES

3%
67.600 SMEs

As of 2017, the great majority of Egypt's 3.8 million businesses were micro-sized with less than 10 employees, whereas 67 600 (3%) were small and medium-sized enterprises with up to 50 employees (OECD 2018). Most SMEs are active in the manufacturing and trade sectors, followed by tourism and construction. Overall, the state continues to play a prominent role in the economy; with attractive employment conditions and also through state-owned enterprises in sectors such as banking, energy, manufacturing, agriculture, transport, tourism and services.

The Ministry of Trade and Industry established the **MSME Development Agency** which is in charge of, among others, designing and executing support programmes on skills, supply chain, marketing, participation in trade fairs, collective negotiation for suppliers.

Another important support agency is the SME Unit at the Egyptian Banking Institute, which offers a comprehensive range of training programs for both bankers and small and medium businessowners. Its mission is to identify training needs of stakeholders and to design the required training events that include the application of international best practices of MSMEs as a major axis for sustainable development.



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Jordan

The great majority of Jordan's population is concentrated in the northwestern part of the country, where rainfall is highest and water is most accessible. Being a dry country with most of the area classified as desert, the exacerbation of water scarcity presents by far the greatest climate change-related risk to the Jordanian population and economy (USAID 2017).

MSMEs

2019

80%

TOTAL BUSINESSES

40%

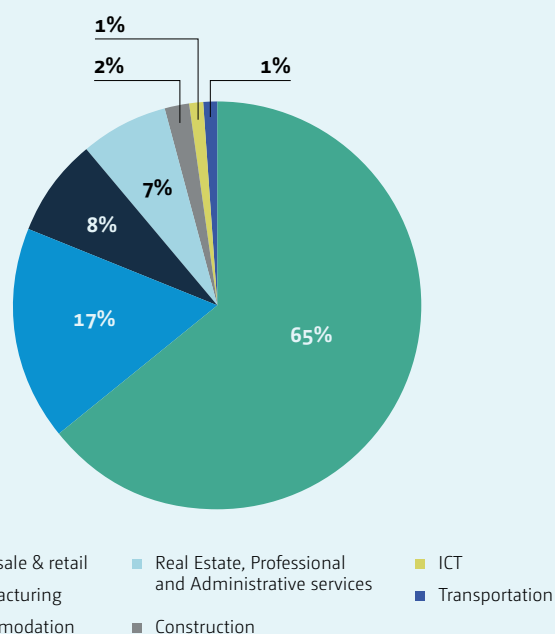
CONTRIBUTE OF GDP
(EIB 2016)

75%

MANUFACTURING - TRADE
ACCOMMODATION - FOOD SERVICES

MSMEs in Jordan are defined by the Ministry of Industry as all enterprises with up to 250 employees (OECD 2019). They account for a substantial share of economic activity in the country, constituting over 80% of the total businesses in all sectors. They employ 71% of the total private sector labour force and contribute 40% of GDP (EIB 2016). Most SMEs are concentrated in manufacturing, wholesale and retail trade, and accommodation and food services. These sectors together account for 75% of all jobs in the business economy and contribute 69% of the GDP. Important in this context is also the Information and Communication sector (ICT), which makes up less than 1% in number of businesses, but contributes nearly 5% of the gross output (EIB 2016).

The Jordan Enterprise Development Corporation (JEDCO) supports the development of start-ups and SMEs by providing specialized and focused technical assistance, and access to finance. It offers mentorship and consultancy services for emerging businesses and SMEs, as well as access to research, statistics and data and technical and financial support to develop and improve enterprises' competitiveness, capabilities, administrative, technical and exporting capacities.



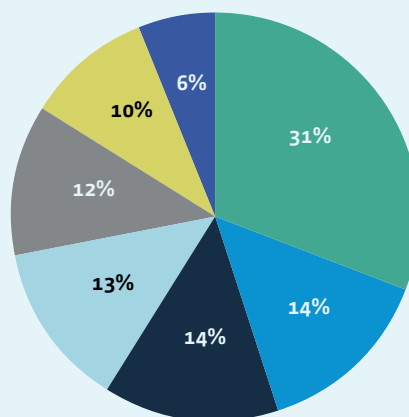
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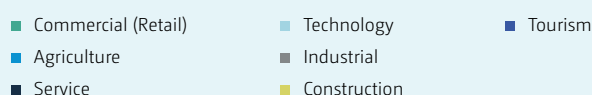
Lebanon

The limited availability of water and land resources in Lebanon, make the agricultural one of the most vulnerable economic sectors to climate change. The tourism sector is also affected by climate change because of the damage inflicted on a wide range of environmental resources that are critical attractions for tourism.

A survey covering 103 SMEs in Lebanon showed that the majority of SMEs are active in retail, followed by agriculture, the tech industry, and industry. The remaining are present in the service and tourism sectors.



All with shares as detailed in the Figure below.



LEBANON'S LOW EMISSION CAPACITY BUILDING PROGRAMME:

It aims to improve Lebanon's relevant infrastructure, institutional capacities, information sharing and coordination processes to develop the required capacities to achieve low emission development. Included are the design of systems for Measuring, Reporting, and Verification (MRV) of proposed actions and means to reduce GHG emissions. The programme is targeting the public and private sector.

[https://openei.org/wiki/Lebanon-EU-UNDP_Low_Emission_Capacity_Building_Programme_\(LECBP\)](https://openei.org/wiki/Lebanon-EU-UNDP_Low_Emission_Capacity_Building_Programme_(LECBP))

CAPACITY BUILDING FOR THE ADOPTION AND APPLICATION OF ENERGY CODES FOR BUILDINGS:

This programme has finished now, but aimed to update existing building codes and improve end-use energy efficiency, the project added on the existing activities and provided the stakeholders with needed support to establish cost-effective energy codes in buildings.

<https://www.thegef.org/project/capacity-building-adoption-and-application-energy-codes-buildings>

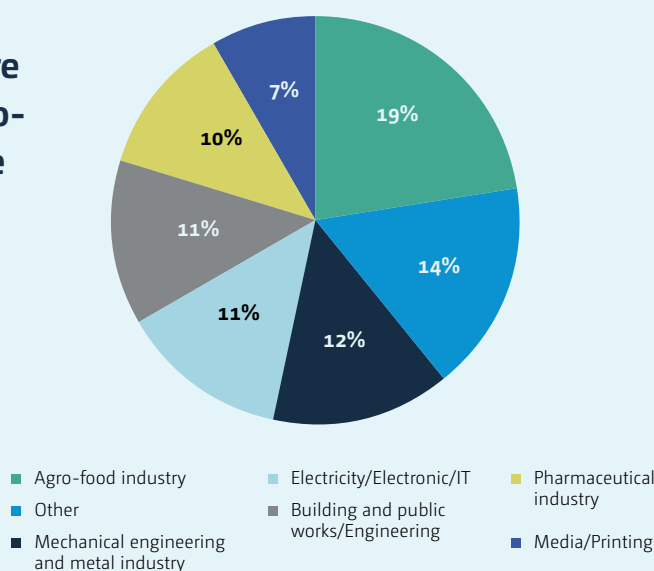
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- <http://climatechange.moe.gov.lb/lebanons-low-emission>

Morocco

Due to the impacts of climate change, the Moroccan economy will be put to the test in the coming years. The agriculture and agro-food industry will most likely be impacted because of climate change induced water stress and the reduction in water resources. Other water-dependent sectors (industry, building and public works, among others) might also not be spared from the effects of climate change.

A study by the EBRD has shown that the largest share of SMEs is active in the agro-food sector, followed by the industry, IT, building and pharmaceutical industries.



PROGRAMMES AND CAPACITY BUILDING INITIATIVES FOR CLIMATE ACTION

IECM – Initiative Entreprises Climat Maroc (climate initiative for Moroccan enterprises):

Capacity building of the private sector to better integrate the risks / opportunities linked to climate change:

- Understanding/quantifying GHG emissions; actions that can be taken to mitigate these emissions and existing opportunities to successfully transition to the new low carbon economy
- Understanding CC risks for companies and their production systems; alternatives to limit the impact of CC and access to new adaptive techniques / technologies and existing opportunities to successfully adapt their businesses to CC and its effects.
- Opening of Moroccan companies on the existing opportunities in the dynamics being set up of the new green economy

<https://iecm.cgem.ma/iecm/>

Centre de Compétences Changement Climatique du Maroc (4C) - Collège Secteur Privé (CSP): Provide support to the private sector (including SMEs) in its climate transition through capacity building, studies and monitoring.

<http://www.4c.ma/college-secteur-privé>

Oman

Oman is projected to suffer from climate change impacts such as increased average temperatures, more erratic precipitation, sea level rise and desertification. The economy of Oman already struggles with aridity, soil salinity, recurrent drought and water scarcity, and will be affected strongly in future (Ahmed and Choudri 2012).

SMEs

2019

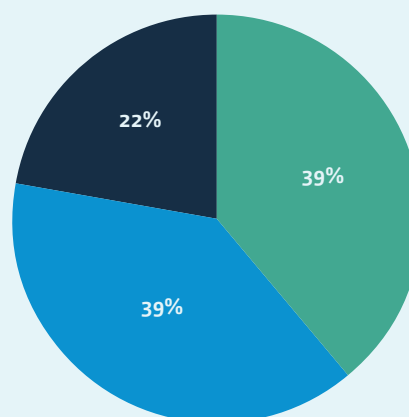
90%
OF ECONOMIC ACTIVITIES

15%
OF GDP (OBG 2019)

Oman's economy is dominantly dependent on crude oil, though investments in economic diversification are underway. Accordingly, the Oxford Business Group finds that the SME sector in Oman accounts for 90% of economic activities, but only 15% of GDP (OBG 2019). Companies with up to 10 national workers constitute 87 % of all companies, but employ only about 38 % of total workforce. The wholesale and retail sector comprises nearly 40% of businesses (51,700), followed by the manufacturing industry with 22% of enterprises (29,000). These two economic activities constitute over 60% of total registered firms.

Oman has several approaches and institutions to support the SME sector, among them the Directorate General of the Development of Small and Medium Enterprises at the Ministry of Commerce and Industry (MCI), and the Public Authority for Development of SMEs which since 2013 supports SMEs with seeking finance.

An RnD programme aims to build the research and innovation capabilities in the industrial sector, to address the problems and industrial challenges facing some SMEs. The National Business Center (NBC) was established in 2012 as a platform for entrepreneurs to proceed with their commercial ideas and develop them into large projects. The NBC aims to become the main platform for Omani entrepreneurs through offering entrepreneurs support, guidance, training, and follow-up to develop their projects.



■ Wholesale & Retail ■ Rest ■ Manufacturing

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Palestine

The impacts of climate change include an accelerated rise in sea level and changes in regional precipitation patterns. Decreased precipitation is expected to be the most significant effect on Palestine over the course of this century, accompanied by a significant rise in average temperatures. The agricultural sector, which is a cornerstone of the economy, will also suffer as a result. Moreover, the Palestinian fragmented political landscape poses some of the greatest challenges to coping with climate change.

The development of SMEs ranks high on the Palestinian Authority's (PA) policy agenda. Palestinian SMEs are dominated by small enterprises. The construction sector is the only sector featuring a stronger presence of medium-size enterprises.

SMEs have a marked presence in the industrial sector. They are divided between mining and quarrying activities, manufacturing of wearing apparel, non-metallic product enterprises and food and beverages. The tourism sector stands as the only sector with a limited SME presence.

The SwitchMed Programme : The SwitchMed Green Entrepreneurs and Civil Society component: Increasing support and financial resources to address green entrepreneurs' market needs, improving technical assistance and capacity building.

Academia & research centers involved in the programme :

- MAS Economic Policy Research Institute
- CPSD - Center for Private Sector Development
- ARIJ - Applied Research Institute Jerusalem
- Palestine Polytechnic University
- Bethlehem University
- Al Quds Open University
- Palestine Technical University
- Birzeit University

The Palestinian Energy and Environment Research Center (PEC) Geographical scope: National PEC was established in 1993 and is a national R&D institution responsible for research and implementation of renewable energies and energy efficiency in Palestine. Its mission includes abatement of GHG emissions and clean energy for the environment. PEC is linked with national, regional, and international partners through a very strong network based on partnerships. PEC has independent financial management audited by both the Palestinian Energy Authority and Ministry of Finance.

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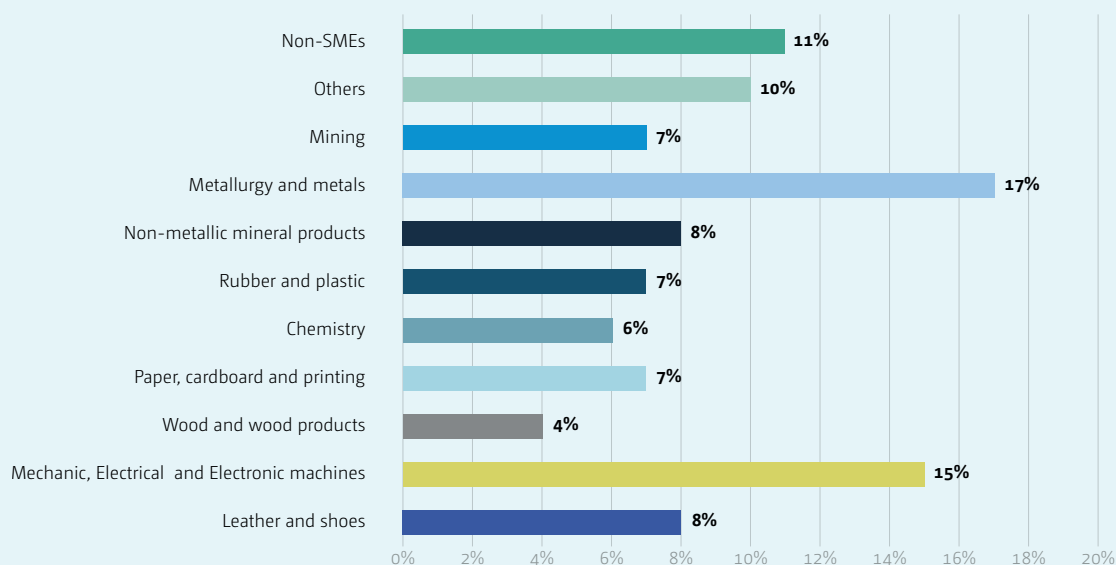
Tunisia

“In Tunisia, climate change will cause water resources to drop, with the country already experiencing a situation of water stress. The coastline will also be seriously affected by erosion, withdrawal of the coast line, salinization of coastal water tables and submersion of agricultural land in coastal areas. If the effects of climate change affect the coastline, tourism will also be threatened. The effects of climate change will also impact agriculture, the agricultural production will decline and the health sector won’t be spared. Finally, two thirds of Tunisian territory might be affected by desertification ” (Quote from Nidhal Attia, national climate change expert during Seminar: “Climate change in Tunisia: Impacts management”)

SMEs

MORE THAN
94%
OF MANUFACTURING
INDUSTRIES

In Tunisia, SMEs account for more than 94% of manufacturing industries. SMEs are also present in other important sectors including retail, service, catering and accommodation and health. Manufacturing SMEs are divided as follows.



Adapt-CC: Capacity building and support for the implementation of the national climate change adaptation policy (GIZ and Ministry of environment and local affairs): Strengthen the capacities of the public and private sector so that they integrate the adaptation to climate change in their structures, strategies and activities.

Saudi Arabia

Climate conditions in Saudi Arabia are arid, and the sand desert renders several regions susceptible to flooding and desertification. The agricultural sector struggles due to the unsuitable environmental conditions, though considerable pastoralist farming exists in some regions. Saudi Arabia lacks permanent water resources and therefore depends on groundwater and seawater desalination to meet its water demands (WB 2020).

SMEs

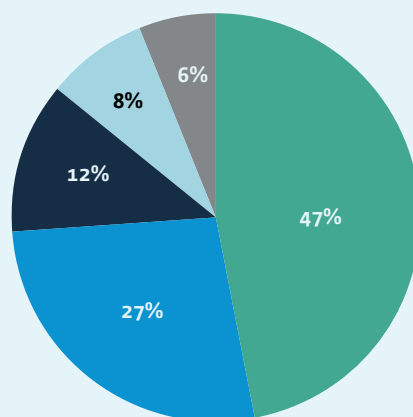
2018

1.97 MLN

ALMOST
90%
OF ALL REGISTERED
BUSINESS

SMEs are well established in Saudi Arabia with an estimated total of 1.97 million firms, with 85% of this being single proprietor (micro) businesses. SMEs constitute almost 90% of all registered businesses and employ almost 60% of the total workforce. Over 70% of SMEs are active in trade and construction sectors, followed by 12% in the industrial sector (KISR 2018).

Taqeem is an authorized program implemented by Saudi Credit Bureau (SIMAH) to assess the financial capability of SMEs in Saudi Arabia. A methodological assessment of SMEs makes Taqeem an effective interaction tool between the banks and SMEs. The Taqeem academy is a center for training and curriculum development, which could provide targeted cc training program.



Commercial (Retail) Social Services
Construction Others
Industrial

References

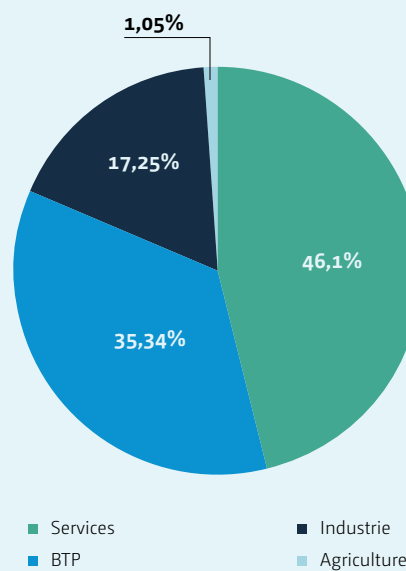
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Algeria

The future climate scenarios foresee an increase of extreme climatic events affecting many vulnerable sectors, which in turn might have serious socio-economic impacts (Centre Climatologique National). The situation of struggling sectors such as the agriculture might worsen. One of the challenges Algeria is facing includes raising awareness among the private sector on the benefits and advantages of climate change.

SMEs play a very important role for the economy by contributing to non-hydrocarbon GDP and added value. SMEs are active in a variety of sectors including public works and building, services, industry and agriculture.

(See graph below).



Bahrain

Whereas climate change threatens all the Arab monarchies of the Arab States of the Gulf, the rising sea levels will endanger Bahrain in particular. Between 27 and 56% of the smallest MENA country could be submerged by rising sea levels by 2100 (LobeLog 2019).

SMEs

2018

92.000
TOTAL ENTERPRISES

99%
ARE SMEs IN BAHRAIN

Out of the total 92.000 enterprises in Bahrain, about 85.000 were considered as micro businesses as of 2018, whereas 5500 were small and 950 medium-sized, compared to 176 large ones (Statista 2021). SME's in Bahrain represent over 99% of active companies, and account for 73% of private sector employment and 28% of Bahrain's GDP (Oxford Business Group, 2018). Information about the contribution of SMEs to different sectors of the economy was not available.

One of Bahrain's most important SME development tools is the semi-governmental body TAMKEEN, established in 2006.

It encourages the creation of enterprises and provides the support necessary to increase the

productivity of existing companies. In recent years, the emphasis shifted towards skills improvement and practical assistance of SMEs through the enterprise support programme and the professional certification programme. By the end of 2015 Tamkeen had trained nearly 95,000 individuals and formed relationships with over 50 professional institutes (Oxford Business Group 2018).

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Libya

There is no official data on the number or size of SMEs in Libya. The food and beverages industry represents the largest share of SMEs. The manufacturing sector is dominated by food, wood and metal production. A small number of SMEs are also engaged in the clothing industry and the production of ceramics and bricks.

OECD (2016): SMEs in Libya's reconstruction: preparing for a post-conflict economy, the development)

Kuwait

Due to the nature of the low-lying coastal of Kuwait, it is at risk to sea levels rise associated with climate change. With a rise of 0.5 - 2 meters, Kuwait could lose up to 3% of its coastal territory, which affects 5% of its GDP (NDC Kuwait 2015)

SMEs

2020

25-30.000

ABOUT

90%

OF TOTAL NUMBER
OF COMPANIES

Kuwait's economy is dominated by oil and by the public sector. More than 80% of the total national workforce of around 390,000 are employed in the public sector. The private sector accounts for merely 19%, or 73,500 people. Less than 7% of Kuwaiti national workforce or about 27,000 work in the SME sector, which only contributes a tiny fraction of 3% to the GDP (Marmore Mena Intelligence 2020).

It is estimated that there are approximately 25-30,000 SMEs in Kuwait, representing about 90% of total number of companies. Around 40% of these are in the wholesale/retail trade sector as well as hotels and restaurants, and 33% in construction and industry sectors (Marmore Mena Intelligence 2020). Kuwait lacks a detailed database that addresses SMEs within divergent size-class definitions and sector classifications.

The National Fund for SME Development (The SME Fund), set up with a capital of KD 2 billion, provides loans for SMEs with the maximum financing

offered up to KD 500,000 per company and will have a broad overview of the SME landscape.

It also provides among other tasks training programmes to SMEs and could be a useful capacity building resource.

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State of Qatar

Qatar lacks arable land and water resources and is therefore especially vulnerable to global warming's impacts. It is among the 10 countries that would be most impacted by sea level rise in terms of percentage of land area and wetlands affected, which would strongly affect coastlines and marine life, whereas rising temperatures will threaten water security and reduce the efficiency of the region's vital desalination plants (Al-Khater 2020).

25%

OF TOTAL REGISTERED FIRMS

EMPLOY AROUND

70%

OF TOTAL WORKFORCE

The economy of Qatar is one of the richest in the world and is mostly made up of oil exports. In terms of private businesses, industrial, construction, and transport sectors constitute only 25% of total registered firms, but employ around 70% of total workforce in the private sector. There is no data available, but it is likely that micro and small businesses are mostly active in the commercial sector, whereas medium firms can be found in the industrial, construction, and transport sectors (KISR 2018).

A support agency for SMEs is Enterprise Qatar (EQ), a one-stop-shop that supports and promotes business operation capabilities.

EQ offers a wide range of services for entrepreneurs and SMEs including education, guidance, research, and financial arrangements. EQ supports projects through corporations with well-known educational institutions, and could serve as a host for dedicated climate change training programmes.

United Arab Emirates (UAE)

The UAE is one of the countries with highest rate of vulnerabilities to potential impacts of climate change. Impacts include higher temperatures, less precipitation, droughts, higher sea levels and more storms. The consequences of these impacts are intense on infrastructure, human health and natural habitat, which affect various development sectors and policies including socio-economic, health and environment (UAE 2020).

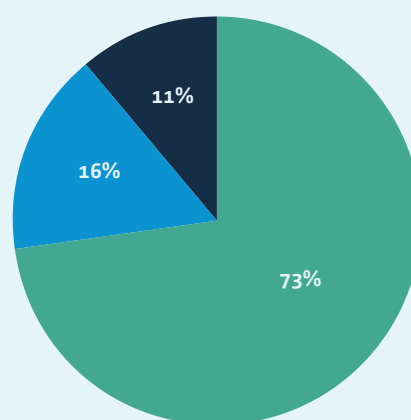
SMEs

95%
OF ALL COMPANIES

EMPLOYING
42%
OF THE WORKFORCE

There is no common definition of SMEs in the UAE, so that figures are not easy to compare between individual emirates. According to Ministry of Economy, SMEs account for nearly 95% of all companies operating in the country. In Dubai alone, SMEs comprise 95% of all companies, employing 42% of the workforce and contributing around 40 % to Dubai's GDP. SMEs are active in diversified areas related to trade and services.

SMEs are especially well established in Dubai, not least due to the Dubai SME established in 2002. It promotes innovation and leadership across all segments of the SME sector and support entrepreneurs in all phases of their development. In Abu Dhabi, the Khalifa Fund is the principal SME authority since 2007.



■ Trade & Retail ■ Service ■ Manufacturing

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Annex D

Overview matrix - mapping research organizations and academia and their existing offerings to address private sector and SME capacity-building needs

Institution / Organization	Existing offering as per main capacity building categories			
	Risk management & mitigation	Access to finance	Knowledge on Climate impacts	Understanding of business relevant climate policies
Morocco IECM - Initiative Entreprises Climat Maroc (climate initiative for Moroccan enterprises)	X		X	X
Morocco Centre de Compétences Changement Climatique du Maroc (4C) - Collège Secteur Privé (CSP)	X		X	X
Morocco University Ibn tofail (climate adaptation)			X	
Palestine Applied Research Institute Jerusalem			X	
Palestine Al Quds Open University			X (agriculture)	
Palestine Palestine Technical University			X (agriculture)	
Palestine Palestinian Energy Environment Research Center	X	X	X	X
Tunisia University of Carthage			X	
Tunisia Institut National Agronomique de Tunisie (INAT)			X	
Algeria University Abou Bekr Belkaïd de Tlemcen			X	
Algeria Direction Générale de la Recherche Scientifique et du Développement Technologique (DGRSDT)	X		X	X
Algeria L'Observatoire de la Souveraineté Alimentaire et de l'Environnement (OSAE)	X		X	

Institution / Organization	Existing offering as per main capacity building categories			
	Risk management & mitigation	Access to finance	Knowledge on Climate impacts	Understanding of business relevant climate policies
Jordan The Jordan Enterprise Development Corporation (JEDCO)		(X)	X	
Egypt SME Unit at the Egyptian Banking Institute		X		
Bahrain TAMKEEN	X	X	X	X
Kuwait National Fund for SME Development		X		
Qatar Enterprise Qatar		X	X	
Qatar Qatar University – College of business and economics			X	
Qatar Factory One	X		X	X
Dubai Dubai SME		X	X	X
Dubai Regional Cooperation Centre Dubai	X		X	
Lebanon Islamic university of Lebanon			X	
Lebanon American university of Beirut			X (agriculture)	
Regional EBRD - FINTECC	X	X	X	X
Regional SME Climate Hub	X	X	X	X
Regional UN Global Compact	X		X	X

Annex E

Matchmaking attempt between training offerings by research organizations and academia & identified private sector and SME capacity-building needs

Potential offerings	Risk management & mitigation	Access to climate finance	Knowledge on climate change	Understanding of business relevant climate policies
Capacity building needs & gaps				
Sound information basis on impacts and risks	Approximately 43%* of the selected organizations have the knowledge to potentially offer trainings in risk management	Approximately 31 %* of the selected organizations have the knowledge to potentially offer trainings on accessing the right climate finance	More than 93%* of the selected organizations have the knowledge to offer potential trainings on the technical aspects of climate change	More than 34%* of the selected organizations have the knowledge to potentially offer trainings on SMEs & climate policies
Identification of climate measures				
Technical capacity				
Knowledge on accessing financial opportunities				
Understanding of business relevant climate policies				

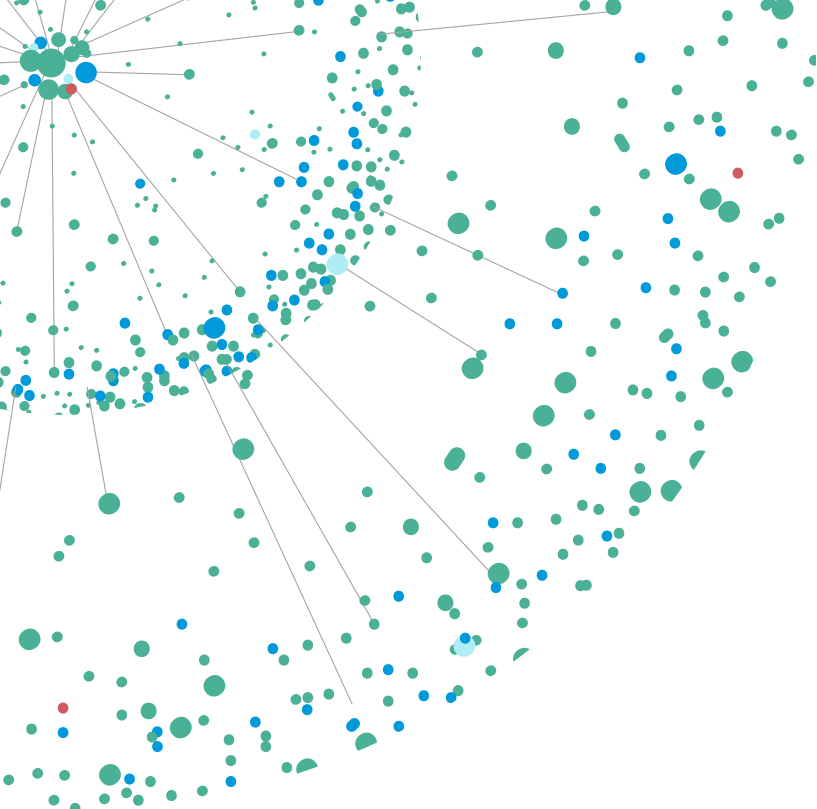
*Note: The percentages above were calculated using a sample of 29 research organizations and academia in the MENA based on the results shown in Annex D.

Although most of the selected organizations/research centers in the MENA have the potential to offer trainings on the understanding of climate change impacts in general, the identification of potential climate measures and providing technical support on projects/products development, clear information on the type of sectors that could be covered is not always provided, except for certain research institutes (specialized in agricultural research, for example) or international organizations/initiatives targeting energy efficiency or renewable energies measures. Building on the outcomes of the survey, trainings on climate change knowledge and technical aspects should be more sector-specific in order to make informed decision on what the feasible and suitable climate action measures could be. Looking at the countries profiles (Annex C) and sectors where SMEs are the most active, one can start with the following sectors: Manufacturing, trade, agriculture (including the agro-food sector), retail, services, industrial sector. Potential training modules that could be developed may include aspects such as raising awareness on climate change risks and their impacts, support in developing tools for the design of suitable mitigation & adaptation strategies in the context of SMEs.

Looking at the results in Annex D, the majority of organizations/research institutes assessed might be able to offer trainings on the understanding of climate change impacts, risks and possible adaptation and mitigation measures. Often, this may entail amending existing curriculums, but further assessing this and to

what extent this may be required is beyond the scope of this mapping study. Areas where capacity building offerings might be lacking include guiding on how to access climate finance and on the understanding of business relevant climate policies, which, again, means that such offerings may need to be developed. Seeing what the more practically oriented organizations and initiatives already offer and should be offered from a more academic/research perspective – complementing each other – should be taken into account (see below).

Most of the organizations listed in Annex D that could potentially provide training on potential funding opportunities already offer support programs to encourage SMEs in tackling climate change. They usually have in-house experts who can offer advisory on the financial feasibility of climate technologies or the existing funding modalities of national banks (e.g., EBRD with its FINTECC programme), for instance. Such organizations have a great knowledge of the climate finance landscape and understanding of the national priorities, as well as the existing programmes & financial products national banks might offer, that are specific to SMEs. When it comes to the understanding of climate risk mitigation and climate policies that are relevant to SMEs, some private institutions like IECM (based in Morocco) have already offered trainings on the understating and integration of climate risk / opportunities in SMEs activities and how SMEs can mitigate and minimize their GHG emissions in order to align with national priorities.



United Nations
Framework Convention on
Climate Change

CLIMATEKOS



Regional Collaboration Centre – Dubai
Promoting Climate Action in the
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