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# Financial Instruments in North Africa



## KEY MESSAGES

- Despite the pressing adaptation needs expressed by several countries in the North Africa region in their Nationally Determined Contributions (NDCs), current adaptation finance represents less than 30 percent of total climate finance received.
- While overall climate financing flows fall short of needs, funding adaptation actions seems particularly difficult. It is apparent that adaptation action is often hindered by the “tragedy of the horizons,” as most policy and financing stakeholders operate under a short- or medium-term planning horizon that is not aligned with the long-term payback periods of most adaptation projects.
- Green bonds are an important domestic public financial tool to raise resources to finance new climate projects or refinance existing ones. They can also serve as a signal of domestic climate awareness and commitment, which can support the growth of private sector climate finance.
- Countries in the North Africa region are also facing a contraction in their fiscal space because of rising levels of public debt due to global factors. Debt for climate or nature swaps are another innovative financial tool that can help secure funding for adaptation projects and thus accelerate climate action while not increasing the country’s debt service burden further.



Photo: Sean Sprague/Panos Pictures

- A country's legal and regulatory framework can create an enabling environment for mobilizing adaptation finance and climate-proofing public and private sector investments. Dedicated climate laws, national strategies, and directives from financial authorities can help set the scene for adaptation finance and define the overall level of ambition by showcasing high-level endorsement.
- Standardized methodologies are vital for assessing country-specific climate vulnerabilities and risks and in turn identifying adaptation needs. In addition, a clear taxonomy and well-defined evaluation methodology are important to create a collective understanding of what qualifies as adaptation action.

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**The climate finance architecture is insufficient, inefficient and unfair. It's insufficient because even if we deliver all on the \$100 billion, this is going to be close to the 3% of what is required for climate action.”**

**Mahmoud Mohieldin**  
UN Climate Change High-Level Champion, COP27

## INTRODUCTION

Despite the pressing climate change adaptation needs identified by many countries across the globe, securing funding to finance adaptation projects has proven challenging. While overall climate financing flows fall short of needs, funding adaptation (as opposed to climate mitigation) actions seems particularly difficult, as adaptation projects tend to accrue benefits over a longer time horizon and face more difficulty in ensuring cost recovery and profitability.

This chapter discusses a broad range of financial instruments for adaptation, providing examples from North Africa.<sup>1</sup> The chapter starts with a brief overview of current climate finance flows to the region and articulated needs to identify financing gaps. It then lays out regulatory and legal instruments as well as institutional settings that can help create an environment for mobilizing adaptation finance and enhancing the efficiency of existing resources for climate action. The chapter then presents examples of actual climate finance instruments. First, it focuses on the mobilization of domestic financial resources, achieved by mainstreaming climate into public budgets and fiscal instruments and by climate-proofing public investments, as well as through public

support for mobilizing private adaptation finance. Second, it discusses more direct climate finance instruments such as green bonds, innovative debt swaps, and financing from multilateral development banks (MDBs) and climate funds, highlighting how they can be tailored to meet adaptation finance needs.

## CLIMATE FINANCE IN NORTH AFRICA: CURRENT FLOWS AND NEEDS

Climate finance should respond to regional and national needs and be based on the articulated priorities and development objectives of countries. As such, while the North Africa sub-region faces similar climate change challenges, climate finance needs at the national level depend, among other things, on climate change exposure, sensitivity, and adaptive capacity as well as the country's socioeconomic conditions, financial situation, and development objectives. A one-size-fits-all solution is likely to fail. Assessing these needs is therefore a prerequisite for mobilizing and securing adequate climate finance for reducing vulnerability and enhancing resilience.

At the policy and prioritization level, many countries in North Africa have identified their climate financing needs in their communications to the United Nations Framework Convention on Climate Change (UNFCCC). These documents include Nationally Determined Contributions (NDCs), National Adaptation Plans (NAPs), Biennial Update Reports (BURs), as well as national and sectoral development strategies and plans. The needs-based climate finance assessment for Arab States reviewed these documents and found that climate change adaptation priorities in the region focus on agriculture for improved food security, integrated management of water resources and desalination, and coastal zone management.<sup>2</sup> However, the costs of adaptation interventions are not straightforward to quantify. This is due to uncertainties relating to future climate trajectories and differences across costing methods.<sup>3</sup> Interdependencies between adaptation options at the national and local levels further contribute to the complexity.

A review of the updated NDCs for five North African countries (Egypt, Mauritania, Morocco, Sudan, and Tunisia) indicates that climate financing needs total US\$393 billion for the implementation of the NDCs over the next decade.<sup>4</sup> Of this amount, almost three



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quarters (US\$288 billion) are requested for climate mitigation actions, and US\$105 billion for adaptation.

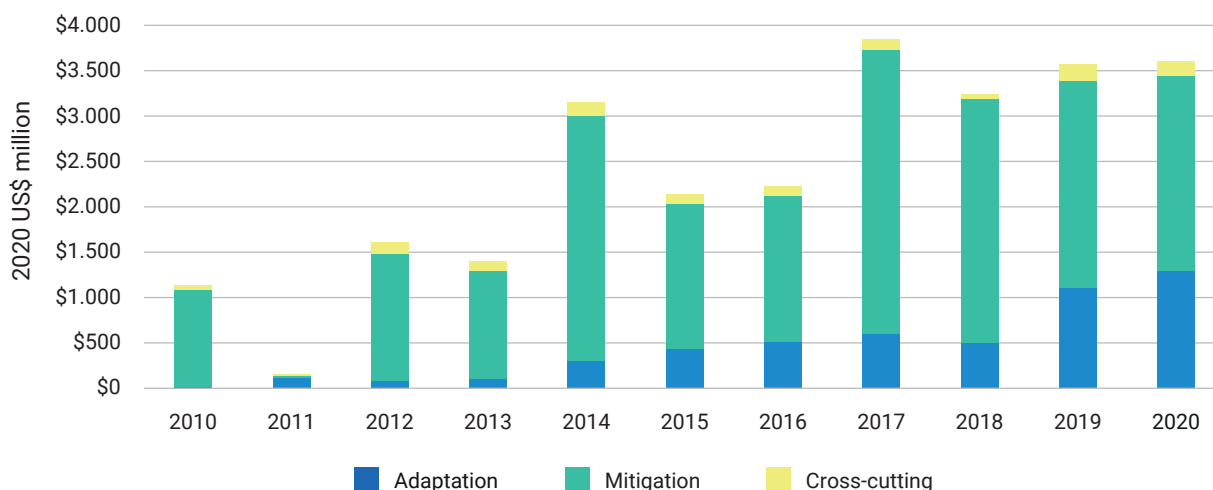
Mobilizing the climate finance that responds to the country needs and avoids potential sustainable development tradeoffs remains challenging for many states in North Africa. Nevertheless, promising signals exist. A slight increase in climate financial flows to the region has been witnessed since 2018 (Figure 1). Climate finance also continued to be disbursed to the region even after the onset of the COVID-19 pandemic in 2020. However, total public climate finance between 2010 and 2020 totaled only US\$26.1 billion,<sup>5</sup> which represents less than 7 percent of the amount of financing required for NDC implementation over the coming 10 years.



**We must do a lot more for Africa. There are a hundred public development banks in Africa. Let's mobilize them there too. Let's bring the resources so that they play their role in each of the countries, in each of the regions, with their private sector and with the financial system much more strongly."**

**Rémy Rioux**  
CEO, Agence française de développement

**Figure 1. Climate Finance Flows to North Africa by Purpose (2010–2020)**



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>Cross-cutting</b>	\$55.12	\$0.19	\$125.60	\$111.30	\$157.30	\$104.60	\$104.30	\$110.40	\$44.79	\$184.80	\$167.50
<b>Mitigation</b>	\$1,071	\$29.19	\$1,389	\$1,188	\$2,693	\$1,588	\$1,600	\$3,127	\$2,675	\$2,290	\$2,131
<b>Adaptation</b>	\$17.60	\$125.70	\$96.85	\$108.10	\$308.50	\$447.80	\$523.80	\$612.90	\$515.90	\$1,103	\$1,310

Source: ESCWA calculations based on OECD DAC data (recipient perspective)<sup>6</sup>

Access to adaptation financing is particularly difficult. Of the US\$26.1 billion the region received in total public climate finance over the past decade, on average only 20 percent was directed at pure adaptation projects (Figure 1); and 4 percent supported cross-cutting climate mitigation and adaptation projects. Mitigation projects received the

largest share of public climate finance. The share of adaptation finance in total public climate finance flows has been growing slightly since 2017 but remained at just 31 percent in 2019 and 36 percent in 2020. Comparing across African sub-regions, the imbalance between adaptation and mitigation finance seems particularly high in North Africa, while

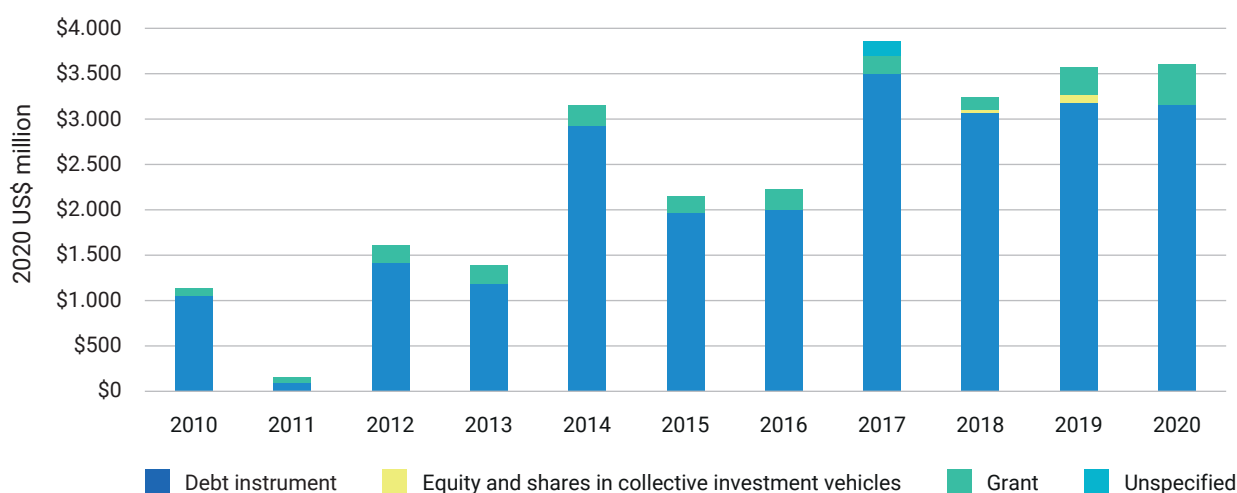
the allocations are closer to parity between mitigation and adaptation finance for West Africa (54 percent for mitigation), Central Africa (52 percent for mitigation) and East Africa (52 percent for mitigation) for the period 2014–2018.<sup>7</sup>

In addition, climate finance flows to North Africa were almost exclusively in the form of debt-based instruments (88 percent), despite the large debt burden many countries in the region are currently facing (Figure 2). There are also large regional disparities in received climate finance. In the sub-region, Egypt and Morocco have been most successful in attracting public international climate finance, while the least developed countries Mauritania and Sudan received only 3 percent of total flows to the sub-region (Figure 3). On a broader scale, Egypt, Morocco, and South Africa received almost one-third of all mitigation finance disbursed in Africa, with the Noor Midelt Solar Power Project in Morocco among the largest projects on the continent.<sup>8</sup>



Photo: mtcurado/Shutterstock

**Figure 2. Climate Finance Flows to North Africa by Type of Financial instrument (2010–2020)**

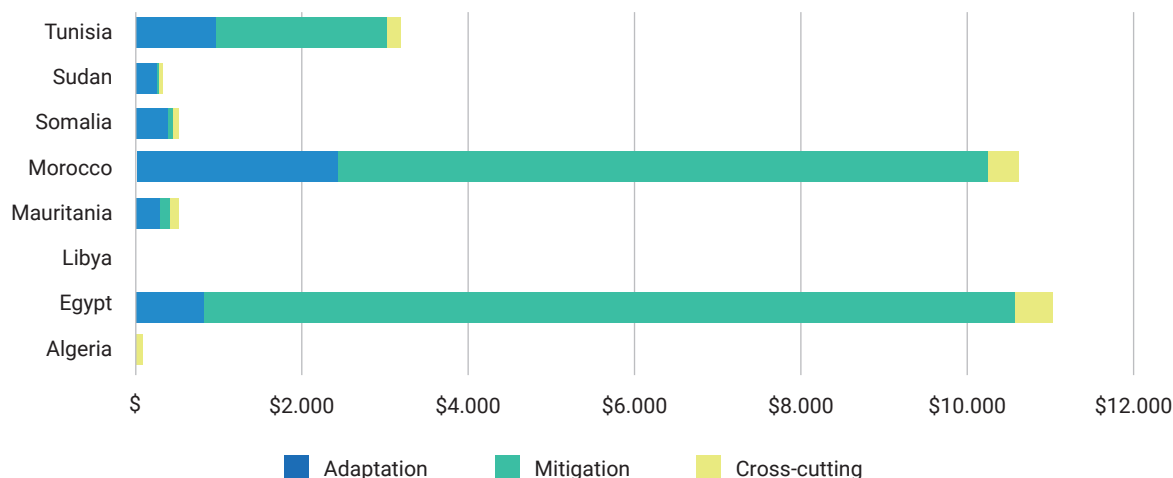


Source: ESCWA calculations based on OECD DAC data (recipient perspective)<sup>9</sup>

Demonstrating a clear climate rationale for adaptation projects to attract dedicated climate finance poses another challenge for countries. As such, the share of adaptation finance is much higher (55 percent in 2020) in projects for which climate is only a significant objective compared to projects for

which climate is the principal objective.<sup>10</sup> According to the Rio marker framework, projects with a significant climate objective are those that would have been undertaken even without a climate component, while projects with a principal climate objective would not.

**Figure 3. Climate Finance Flows to North Africa by Country and Purpose (2010–2020)**



Source: ESCWA calculations based on OECD DAC data (recipient perspective)<sup>11</sup>

## FINANCIAL INSTRUMENTS FOR ADAPTATION: CREATING AN ENABLING ENVIRONMENT

Countries can mobilize climate finance from a broad range of sources and in many different forms. There are public and private as well as national and international financing instruments. Furthermore, in addition to mobilizing external funds, existing national resources can be freed for financing climate action by mainstreaming climate into public budget and expenditure processes as well as fiscal mechanisms. Unlike mitigation projects, adaptation projects tend to accrue benefits over a longer time horizon and face more difficulty in ensuring cost recovery and profitability. This renders them less attractive for private sector investment.<sup>12</sup>

At the same time, countries in the region face a contraction in their fiscal space. Public debt has been rising in an unprecedented way over the past decade. Debt burdens have been aggravated further by the COVID-19 pandemic and the Russian invasion of Ukraine, particularly through price increases for energy and wheat, of which many North African countries are net importers. For middle-income countries in the Arab region,<sup>13</sup> the total public debt more than doubled between 2008 and 2020, reaching US\$658 billion in 2020, which implies a debt-to-GDP ratio of 91 percent.<sup>14</sup> This severely limits the resources available for investing in climate action. In

addition, debt vulnerability considerations might limit a country's external borrowing ability. More innovative financial instruments are needed to ensure that the cost burden for adaptation is not placed exclusively on the public purse.

### Regulatory and Legal Instruments to Create an Enabling Environment for Adaptation Finance

A country's legal and regulatory framework can create an enabling environment for mobilizing adaptation finance and climate-proofing public and private sector investments. Dedicated climate laws, national strategies, and directives from financial authorities help set the scene for adaptation finance and define the overall level of ambition by showcasing high-level endorsement. For example, Egypt recently published its National Climate Change Strategy 2050. This 2022 policy document provides one consolidated climate reference agenda that defines goals related to green growth and climate resilience, climate governance and climate finance, and climate mainstreaming into all levels of planning and decision-making.<sup>15</sup>

Specific guidelines are also needed to prioritize areas of action. In a large consultative process ahead of COP22 involving many stakeholders, including regulators and banking sector representatives, Morocco developed its Roadmap for Aligning the Moroccan Financial Sector with Sustainable Development.<sup>16</sup> While this Roadmap is not exclusively



dedicated to climate adaptation, many of its guidelines can be used to support financing for adaptation as well. The Roadmap includes specific provisions for the banking sector, the insurance sector, and the capital market, and calls for risk governance as well as the supply of specific climate-related financial tools and products.

Sector-specific regulations and action plans can also help translate national-level goals into concrete actions. The Plan Maroc Vert,<sup>17</sup> an ambitious strategy to make the Moroccan agricultural sector a lever of socioeconomic development, seeks to enhance climate resilience and adaptation of the agricultural sector by promoting drip irrigation and crop rotation to reduce vulnerability to climate change. The Plan



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also seeks to develop new laws and regulations, structural reforms, and specific support for private sector investments.

Institutional structures can also help to create an enabling environment for mobilizing adaptation finance. Institutionalized communication channels and cooperation incentives between all ministries and at all levels of policymaking help to create and identify synergies and avoid spending at cross-purpose. Several North African States have passed decrees to establish national management units to coordinate, streamline, and monitor national climate-related activities.<sup>18</sup> In Egypt for example, the National Committee on Climate Change monitors climate change budget allocations to ministries involved in climate change action and is responsible for raising climate awareness among decision-makers. Algeria established a National Climate Committee under its Ministry of Environment that facilitates coordination across ministries.

Further, an enabling environment for mobilizing adaptation finance should engage all levels of government and involve local stakeholders. Drawing upon local knowledge helps to develop tailored solutions responsive to stakeholder needs. As such, a bottom-up approach can help strengthen local authorities and actively engage communities in the planning and implementation of projects as well as in knowledge and capacity-building processes. For example, two regions in Morocco have already responded to the national government's call to develop Territorial Plans against Global Warming with the support of a recent Green Climate Fund (GCF) project. These plans contain an adaptation component which includes a vulnerability analysis, outlines the governance and operational planning for adaptation in the region, and identifies a list of strategic priorities and a portfolio of adaptation actions by sector. The development of these regional plans has enabled more detailed climate risk analyses to inform planning, a stronger focus on the needs and priorities on the ground, a stronger engagement with the regional and local authorities, and a more direct involvement of vulnerable communities. This detailed knowledge on vulnerabilities and adaptation needs and prospects can help strengthen the climate rationale of projects that can then be postulated by the Kingdom and enhance access to international climate finance.

## **Fostering a Common Understanding of Adaptation Needs: Climate-Related Financial Risk Disclosures and a Climate Taxonomy**

A better understanding of climate risks and vulnerabilities for individuals, firms, and the public sector is paramount in defining adaptation needs and thus for mobilizing and accessing adaptation finance. Climate-related financial risk disclosures regarding adaptation and disaster risk can do just this. The Task Force on Climate-Related Financial Disclosures (TCFD) provides specific guidelines on how to disclose such risks, in particular by examining the assets and operations exposed to climate risks due to both direct climate hazards as well as changing taxonomies which could lead to stranded assets. Several banks, asset managers, and companies in Egypt, Morocco, and Tunisia, including the Moroccan Central Bank (Bank Al-Maghrib), support these guidelines.<sup>19</sup>

In addition, as part of the Roadmap for Aligning the Moroccan Financial Sector with Sustainable Development, the Central Bank of Morocco issued a regulation in 2021 requiring credit institutions to identify, manage and monitor climate-related and environmental risks in line with international practices, setting out specific guidelines on the disclosure of these financial risks, and calling for new commitments on sustainable finance.<sup>20</sup> The European Bank for Reconstruction and Development (EBRD) and the Moroccan Banking Association have established a cooperation framework to support the implementation of these climate risk management regulations. Similarly, the Moroccan Capital Market Association is currently updating its 2019 Circular 03/19 on Environmental, Social and Governance (ESG) disclosure, which, with the assistance of the International Finance Corporation (IFC), will build on existing requirements for issuers to disclose climate risks using international standards such as from the Carbon Disclosure Standards Board and the TCFD. Egypt has similar disclosure rules for ESG practices, requiring companies to report on the climate and environmental impact of their activities as well as on the risks that climate change poses for their operations. Such a better understanding of climate-related risks, in combination with a clear taxonomy defining what counts as a climate adaptation project, can motivate adaptation investments by the private sector to enhance their climate resilience.



## FINANCIAL INSTRUMENTS FOR ADAPTATION: MOBILIZING PUBLIC BUDGETS AND PRIVATE INVESTMENTS

### National Public Sector Adaptation Finance: Greening Public Budgets and Climate-Proofing Development Plans

The public sector can play an important role in financing climate change adaptation. Mainstreaming climate considerations into public budgets and incorporating adaptation finance into all stages of the budgeting process can provide a direct channel of funding for dedicated climate adaptation projects and facilitate the climate-proofing of planned or ongoing public investments, such as in infrastructure or housing.<sup>21</sup> Transparency and a strengthened fiscal discipline can improve the efficiency of climate expenditure management as well as the intersectoral allocation of climate funds to maximize the value of existing budgetary resources. A climate-sensitive budgeting process with budget tracking tools can enhance overall operational performance.

Climate Public Expenditure and Institutional Reviews can help to inform the national response to climate change by “examining the linkages between the national climate change policy, the institutional structures through which policy is channeled, and the resource allocation processes whereby public funding is made available for the implementation of relevant projects, programmes and policies.”<sup>22</sup> Such a review was initiated in 2013 in Morocco. It found that 64 percent of all climate-related spending in the country over the period 2005–2010 (or 9 percent of the country’s overall investment expenditures) supported adaptation projects.<sup>23</sup> In the future, Morocco seeks to dedicate at least 15 percent of its overall investment budgets to climate change adaptation, with the most significant proportion dedicated to infrastructure. Despite these impressive numbers, the review also highlighted barriers, particularly the limited institutional coordination and the lack of standardized data collection, methodologies, and taxonomies, as well as monitoring and evaluation. As a follow-up, Morocco is working on establishing a system to monitor public spending on climate change with the support of the Low Emission Capacity Building Project.<sup>24</sup> Adaptation indicators to measure vulnerability, adaptive capacity, adaptation measures undertaken, as well

as wellbeing were also integrated into the Regional Information System on Environment and Sustainable Development, an existing decentralized information system to track development progress.<sup>25</sup>

Establishing a reliable system for tagging and tracking climate-related public expenditures is important to earmark funds and assess whether public budgets have been used to their designated end in a results-based framework. Thus far, climate-related budget tagging and budget tracking are still rare in the North Africa sub-region, which can in part be attributed to the lack of data and monitoring capacity, including a clear taxonomy and performance indicators, manifest in several countries in the region. Lessons can however be learned from budget tracking and tagging in other sectors. For example, the social expenditure monitor led by the United Nations Economic and Social Commission for Western Asia (ESCWA) features a pilot study on Tunisia.<sup>26</sup> This tool provides disaggregated data on public social expenditures to identify the neediest sectors for a resource reallocation and to help governments improve the link between expenditure choices and macroeconomic objectives. Environmental protection is addressed as one of the seven dimensions of social spending. Overall, the monitor showed that public expenditure on environmental protection was scarce, with financing for environmental protection coming primarily from external sources, particularly grants and loans from international institutions or bilateral donors.

Another public budget instrument is the provision of dedicated national funds to allow both for ad hoc financing in the aftermath of a disaster as well as for investing in strategic adaptation measures. Morocco has established two such funds, the National Environment Fund and the National Fund Against Natural Disasters. These funds receive funding from various sources, including external donations and allocations from the national budget. While the natural disaster fund originally focused on post-disaster response, Morocco, with the support of the World Bank’s Integrated Disaster Risk Management Program, is transforming it into a national resilience fund. This resilience fund currently co-finances more than 150 strategic investments to reduce climate-related risks, ranging from flood protection infrastructure to early warning systems, hazard mapping, and capacity building.<sup>27</sup>

Further, the public sector can indirectly support climate action by greening public procurement. Egypt, for example, recently adopted sustainability standards that are used as criteria to evaluate and ensure that public investment projects included in the national investment plan are consistent with environmental sustainability standards. So far, only the reduction of greenhouse gas (GHG) emissions is included in these standards, even though no specific emission reduction target has been set. But these could easily be extended to also cover standards for enhancing climate resilience and adaptation. The level of green national investment was 15 percent for the fiscal year 2020/21, which the government seeks to increase to 50–60 percent by the fiscal year 2024/25.<sup>28</sup>

### Public Support for Private Adaptation Finance

The private sector has great potential for financing climate action. So far, however, private climate finance is almost exclusively geared toward climate change mitigation. To incentivize and support the private sector to also finance climate change adaptation, the public sector can take several steps. In addition to requiring climate-related financial risk disclosures from companies, which can help to motivate direct investments in adaptation and enhanced resilience, public national banks or development banks could for example provide credit guarantee schemes or blended finance solutions to de-risk private sector adaptation investments. In Morocco, for example, investment and loan guarantees as well as environmental and energy audits are provided under the *Tatwir Croissance Verte* program, which is part of the national financial inclusion strategy.<sup>29</sup> While most of the program's components are focused on financing climate change mitigation, such as by providing support for the development of carbon-free processes and products or the reduction of industrial pollution, this program could in principle also be used for supporting climate adaptation projects, particularly for climate-proofing and enhancing the climate resilience of existing investments.

In addition, a clear legal and regulatory framework can make blended finance and public-private partnerships (PPPs) more attractive. For example, the recently published cross-cutting Law for Improving Business for Climate Finance in Tunisia<sup>30</sup> supports structural reforms to encourage private sector

investment. It focuses on providing enhanced access to finance for small and medium-sized enterprises (SMEs), enabling PPPs and concessions, and eliminating bureaucratic bottlenecks. Morocco, as part of its national adaptation planning process, aims to incentivize private sector adaptation investments by setting up business incubators for adaptation, encouraging innovation through an adaptation innovation competition, and developing catastrophe risk insurance programs.<sup>31</sup> A national climate adaptation investment forum involving financial institutions, investment funds, and private sector companies is also planned to facilitate financial engagements through assessing barriers and opportunities for private investments in climate change adaptation activities.

Further, in complementarity with adaptation efforts, disaster insurance can help alleviate the immediate impacts of climate-related disasters and build back better. In 2019, Morocco made insurance against natural and human-made disasters compulsory for all its citizens through the promulgation of Law No. 110-14, which was accompanied by a social solidarity premium to ensure coverage for those who are unable to pay.<sup>32</sup> The program was accompanied by an information and awareness-raising campaign on catastrophic risk by the Supervisory Authority of Insurance and Social Welfare. This initiative is supported by the World Bank Disaster Risk Management Development Policy Loan, and a National Flood Risk Management Information System also has been established. This experience could inform disaster risk management efforts in other countries in the North Africa sub-region. Sudan, for example, has experienced nearly annual flood events since 2013 that destroyed agricultural lands and devastated vulnerable communities.

Overall, successfully mobilizing public budgets for adaptation requires capacity building and awareness-raising.<sup>33</sup> In Egypt for example, several capacity-building initiatives are under way to improve the country's financial readiness. As part of the development of its Fourth National Communication on Climate Change, the Ministry of Environment has organized climate change intensive courses for officials in ministries of finance and planning to support the mainstreaming of climate considerations in budget and investment planning processes.<sup>34</sup>

## FINANCIAL INSTRUMENTS FOR ADAPTATION: REVENUES

### Green Bonds

Recent years have witnessed an increasing interest in green bonds.<sup>35</sup> They are an important domestic public financial tool to raise resources to finance new climate projects or refinance existing ones. They can also serve as signals of domestic climate awareness and commitment, which can support the growth of private sector climate finance. Their issuance is however a time- and resource-intensive process. Such bonds require a clear taxonomy to define what qualifies as a green project that can be supported by the proceeds, a clear key performance indicators (KPI) framework, and a transparent verification and reporting system that includes an external oversight authority. A pipeline of eligible projects to be financed should already be part of the bond offerings description. Further, on the institutional level, green bond issuances require the formation of a multisectoral committee. This should be chaired by the Debt Management Office of the Ministry of Finance and co-chaired by the Ministry of Environment to ensure that the allocation of expenditures is aligned with the country's climate objectives and strategies, such as outlined in its NDC or NAP.<sup>36</sup>

Egypt and Morocco are both active on the green bond market. However, bond proceeds have primarily financed climate mitigation projects. Morocco issued its first green bond in 2016 for a total of US\$447 million. Additional bonds were issued in 2018 and 2020, financing renewable energy, energy efficiency, and sustainable housing projects. Egypt issued its first sovereign green bond in September 2020 with a five-year term worth US\$750 million. As of November 2021, 75 percent of the net proceeds of the issuance (US\$564.46 million) have been used to finance eligible projects. Of these, 46 percent are being used for the Cairo Monorail as a clean transportation project. The remaining 54 percent are supporting 14 sustainable water, water desalination, and wastewater management projects.<sup>37</sup>

To promote the development of green bonds, the Moroccan Capital Market Authority (AMMC), in partnership with the IFC, published its first guidelines in 2016 setting the regulatory framework and rules for issuing green bonds. The guidelines

help issuers and investors to identify, evaluate, and select eligible projects. They also provide guidance on the regulatory requirements for the issuance, use, and management of green bonds' proceeds, for independent external reviews, and for reporting and disclosure. In Egypt, the Capital Market Law No. 95 of 1992, as well as its executive regulations and relevant directives issued by the Financial Regulatory Authority's (FRA) board of directors, serves to regulate the green bonds market. The legal framework authorizing the issuance of green bonds, detailing rules based on the Green Bond Principles to enhance transparency and consistency of green bond approval, was published by the FRA in 2018.<sup>38</sup>

To increase the potential of green bonds to support adaptation finance, bonds can be used in tandem with conventional financing instruments to support projects that require long-term planning and investment horizons. Long-term bonds also give time to the public sector to raise the revenues to



cover the interest and payment coupon. Science-based assessments to help prioritize adaptation needs and to provide the climate rationale for the preparation of bankable adaptation projects can help to attract funding through green bonds or dedicated climate bonds.<sup>39</sup>

## Debt Swaps

The historically high and still rising debt service burden many countries in the region are facing puts at risk their ability to meet climate-related expenditure commitments and allocate additional resources for climate action. In addition, a high debt burden coupled with uncertain economic development prospects might lead to rising sovereign credit risk and thus higher borrowing costs, exacerbating liquidity constraints and further narrowing the fiscal space. Bonds are more debt-generating and thus less accessible or not the first best financing option in such a critical situation.



Photo: Socha/iStock

Debt for climate or nature swaps on the other hand present an innovative financial tool that can help secure funding for adaptation projects and thus accelerate climate action while not increasing the country's debt service burden further. A debt swap converts national debt servicing payments on external debt into domestic investments, which can in turn be directed toward projects or programs that support national sustainable development or climate goals. Such an arrangement provides multiple benefits. For the creditor, it reduces the risk of moral hazard and fungibility of investments and ensures the debtor's expenditure commitment to climate action through public budgets. For the debtor, it not only provides debt relief and fiscal benefits as well as support for national adaptation and mitigation targets, but also promotes economic transformation, diversification, and private sector opportunities. Egypt is currently implementing a debt swap program with Germany over three phases with a total value of €240 million. While most of the funds are directed at education, energy, infrastructure and employment generation projects, the swap covers some activities that support clean water and sanitation.<sup>40</sup> Egypt has also signed a debt swap with Italy that focuses on food security and nutrition, agriculture, environment and education.<sup>41</sup> Opportunities thus exist for using this modality to support adaptation projects as well.

In light of these opportunities and growing concern regarding the high debt burden being faced by countries in the region, ESCWA launched the Climate/SDGs Debt Swap-Donor Nexus Initiative in 2020.<sup>42</sup> This initiative provides an alternative to debt restructuring by facilitating a debt swap between bilateral creditors and middle-income countries that are facing increasing fiscal pressure, but which are not at risk of defaulting on their payments. This ensures that, unlike conventional debt swaps, the initiative has a neutral or positive impact on the country's credit rating. In addition, focusing on bilateral creditors with significant loans outstanding with the debtor country does not require any third-party transaction and thus reduces transaction costs and coordination time as well as improves budgetary commitments for climate action.

The initiative works to achieve economies of scale in terms of transaction costs by providing a multi-year framework for a pipeline of projects that can support the achievement of national goals under

the 2030 Agenda for Sustainable Development or national climate commitments. A KPI framework targeted at the project and policy levels assists in the selection and monitoring of projects. These KPIs should be carefully selected, based on vulnerability and needs assessment as well as national climate and development strategies, action plans and priorities, and allow for regular monitoring by choosing indicators that are frequently and easily available and be attributable to national policy action. Benchmarking projects against such clear and measurable criteria can ensure projects are selected that accelerate climate action, target vulnerable populations and locations, and improve debt sustainability by scaling up long-term finance.<sup>43</sup>

Furthermore, beyond the direct benefits of the implementation of climate-related projects, debt swaps can achieve a transformational impact at the country level. Linking debt swaps to KPIs at the policy

level can support the acceleration of policy reforms and other policy action at the macro level to create an enabling environment, which in turn will enhance the sustainability of outcomes.<sup>44</sup> In addition, a clear implementation and monitoring framework and the larger scale of these multi-year swaps help to build confidence among bilateral creditors and crowds in additional support from donors that can scale up the resources provided through the swap.

ESCWA's debt swap initiative is currently being piloted in Jordan. As clear country ownership and a reliable institutional framework are paramount to ensure sufficient support and sustainability of the initiative, Jordan has established an interagency taskforce. Members from the ministries of planning, finance, energy, environment, and water and irrigation coordinate to operationalize the debt swap. The taskforce has identified a set of actionable projects that support climate adaptation and mitigation, including those focused on water supply and wastewater management, sustainable forest management, as well as on renewable energy and energy efficiency measures. North African countries have expressed their interest in this debt swap initiative, which provides opportunities for securing funding for climate adaptation projects while not increasing their national debt burden.

### Climate Funds and Multilateral Development Banks

MDBs and climate funds provide climate finance through different channels, some of which specifically focus on adaptation. These funding instruments support readiness projects to help prepare countries for securing climate finance. They also finance climate adaptation and mitigation projects through grants. Concessional international finance can be used catalytically for crowding in new finance, including from the private sector, which tends to charge commercial rates.

MDBs have become the dominant source of climate finance, providing almost two-thirds of total public climate finance flows to the Arab region between 2013 and 2019.<sup>45</sup> However, most of these flows have been non-concessional debt instruments with a very small share of grants offered. MDBs have also diversified their offerings into green financial instruments, in support of commitments made to align their operations with the Paris Agreement



and the 2030 Agenda. For instance, the Islamic Development Bank (IsDB) issued in 2019 a €1 billion green sukuk, a financing instrument compliant with the rules of Islamic banking. Tunisia is among the IsDB Member Countries to have received proceeds from the offering. Overall, most of the proceeds were allocated to climate mitigation projects to support clean transportation (68 percent of total proceeds) and renewable energy and energy efficiency (27 percent of total proceeds). A small fraction has however also been used to support climate adaptation through sustainable water and wastewater management projects.<sup>46</sup>

Climate funds can also play an important role in providing alternative forms of financing, but their overall contributions remained at 1 to 2 percent of total public climate finance. In the Middle East and North Africa (MENA) region, the five funds serving the Paris Agreement (the Global Environmental Facility, the GCF, the Adaptation Fund, the Least Developed Countries Fund, and the Special Climate Change Fund) were the most active multilateral climate funds between 2003 and 2018. However, their average commitment per project has been relatively low. The Climate Investment Funds' Clean Technology Fund also provides financing to the region, but it primarily serves mitigation objectives.<sup>47</sup> In Morocco, the EBRD, the GCF, and the Green Economy Financing Facility provide funding and technical assistance through various funding lines, addressing SMEs in particular.<sup>48</sup> The focus of these funding lines is on climate change mitigation, such as smart green investments for saving energy and resources, and financing the green transition, but some support has also been made available for technologies that increase climate resilience. In addition to pure financial support, the programs offer knowledge and awareness-raising campaigns on climate change mitigation and adaptation and project development support. For example, the Green Economy Financing Facility seeks to enhance access to finance from local financial institutions through capacity-building activities.

However, many countries in North Africa continue to face challenges in accessing resources from international climate funds. While Egypt, Morocco, and Tunisia have been able to secure funding of US\$294 million, US\$220 million and US\$141 million in total from the GCF until now, other countries have received much smaller amounts (Mauritania

only received \$46 million) or no project support at all (Algeria and Libya only received readiness funding).<sup>49</sup> The accreditation of suitable local entities as well as the time-consuming and complex project development and approval process have been identified as main barriers, particularly for low-income countries.<sup>50</sup> The GCF is currently providing readiness support to help address these challenges. Developing national capacity in this area could further improve the access to funds.<sup>51</sup>

## **Making Financial Instruments Work for Adaptation**

Until now, the described climate finance instruments support primarily mitigation projects. There are several reasons for this. Understanding and addressing them can help make the financial instruments work for adaptation. In particular, developing bankable adaptation projects is challenging. In addition, the way in which the climate finance instruments are designed and currently used does not align well with the nature of adaptation projects.

As such, a limited understanding of climate risks and vulnerabilities as well as general uncertainties relating to the frequency, severity and spread of future climate extremes—and thus the costs involved in alternative climate scenarios in which no adaptation is undertaken—renders it difficult to provide exact estimates on the benefits of adaptation. This reduces the incentives for actors to invest in adaptation. Conducting vulnerability assessments and providing local climate projections (as done through the ESCWA-led Regional Initiative for the Assessment of Climate Change Impacts on Water Resources and Socio-Economic Vulnerability in the Arab Region (RICCAR) project, for example<sup>52</sup>) can help formulate a clear climate rationale and identify where climate finance, particularly from the private sector, is needed the most. Making this information publicly available and supporting knowledge sharing among different stakeholders further helps to reduce transaction and information costs and involve businesses and the private sector in identifying vulnerabilities as well as project ideas.

Further, clearly attributing results and impacts to project activities is challenging for adaptation actions. Many adaptation interventions, such as enhancing the resilience of infrastructure or providing

common resources without clearly enforceable property rights (such as biodiversity), have traits of a public good and their benefits are expected to accrue over a longer time horizon.<sup>53</sup> This renders their rate of return difficult to assess and quantify, which might deter investments. In addition, adaptation lacks a commonly accepted metric for comparing and valuing its benefits, similar to the system of carbon credits received for investing in climate change mitigation. Establishing such a commodification of adaptation is difficult as adaptation interventions are much more context-specific compared to mitigation actions. A sound KPI framework that builds on frequently available and easily accessible data can help to make impacts—and thus the benefits of adaptation projects—measurable and tangible. This in turn can attract investments. Coupling such a KPI framework with a proper monitoring and evaluation system is needed to ensure transparency on the distribution of funds and consider interlinkages between financial flows from different sources as well as between climate and development co-benefits.

In addition to these challenges relating to the nature of adaptation interventions, the current design of many financing instruments also present barriers to adaptation financing. Quantifiable investment incentives, in particular the rate of return, are especially important for tradable instruments such as green bonds to attract the interest of investors. However, adaptation projects are primarily designed to avoid future losses from anticipated climate risks rather than to generate a stable revenue stream. At the same time, the long-term payback period of adaptation interventions as well as the uncertainties and lack of information on resilience-enhancing technologies and future climate trajectories increase the perceived risk involved in financing adaptation. This raises the rate of return that would be required for an investment to be attractive even further. Further, climate action in general, and adaptation action in particular, is often hindered by the tragedy of the horizons,<sup>54</sup> as most policy and financing stakeholders operate under a short- or medium-term planning horizon that is ill-aligned with the long-term payback periods of most adaptation projects. To make financing instruments work for adaptation, it is thus paramount to consider these longer payback periods in their design.

While it is more difficult to achieve predictable positive returns on investments over a reasonable time horizon for adaptation projects compared to mitigation projects, it is not impossible. Activities focusing on technology development, such as those aimed at enhancing agricultural productivity through crop resilience, the provision of financial services that promote and finance adaptation, as well as supporting businesses in evaluating and incorporating climate risk into their operations, are likely to yield positive returns.<sup>55</sup> Similarly, projects with mitigation and adaptation co-benefits also have the potential to yield quantifiable investment benefits. Even if the rate of return on these projects is still too low for private investors, institutional investors with a clear climate mandate might be interested in financing them. To attract such investments, a framework to reliably measure targets, implementation, and outcomes is paramount.

Further, institutional and legal barriers can deter support for adaptation actions. Regulatory policies are needed to create demand for adaptation projects. Improvements in the overall investment climate can also help attract adaptation financing. As such, policy reforms to enhance institutional arrangements and legal frameworks can reduce policy and institutional risk. For example, uncertainties on tenure security and property rights might hinder reforestation or water-sector adaptation investments. In addition, public actors can help de-risk adaptation interventions to make them more attractive, for example by providing investment security through showing high-level commitment, legal reforms and long-term policy planning, as well as public investment guarantees, insurance schemes or co-financing of investments.

To scale up adaptation financing from MDBs and climate funds, as well as through debt swaps, capacity building and an enabling environment are needed. A review of the updated NDCs of North African States shows that there is an imbalance in the costed needs for climate adaptation and mitigation. Only Morocco specifies equal financing needs for both. The others either do not provide a cost estimate for climate adaptation at all, or specify much smaller needs for adaptation finance (between one-third and one-fifth) than for climate change mitigation. This indicates a lack of capacity in properly developing and costing climate

adaptation projects. Similarly, finance mobilization effectiveness<sup>56</sup> tends to be prioritized in the selection of project proposals to seek funding for, even though the success of climate finance also depends on whether climate goals are met, whether public cost is minimized, and whether the distributive impacts are equitable and leave no one behind. This might lead to biased choices. MDB and climate fund support for capacity building could alleviate constraints in accessing and absorbing adaptation finance.

In addition, donors are often seen to have stronger incentives to invest in climate change mitigation compared to adaptation actions. The benefits of adaptation interventions are more concentrated geographically, and mitigation actions are perceived as more effective in addressing global risks.<sup>57</sup> Recipient countries could concentrate on large-scale projects or a pipeline of projects to reduce transaction costs and thus increase funding and investment incentives. Furthermore, MDBs, climate funds, and bilateral donors should focus on designing and providing more long-term financing options to align the time horizons of their financing products with the timeline of most adaptation interventions.

## RECOMMENDATIONS

Climate finance is receiving increasingly more attention in international climate negotiations. While the importance of additional financial flows for achieving climate change adaptation and mitigation goals is undebated, current financial flows still fall far short of the identified financing needs, both in terms of their quantity as well as their quality. In particular, despite the pressing adaptation needs expressed by several countries in the region in their NDCs, current adaptation finance represents less than 30 percent of total climate finance received.

Innovative financial approaches and instruments can help access additional funds and maximize the value of existing ones. As such, financial instruments for adaptation range from greening public budgets and climate-proofing public expenditures, the mobilization of private sector financing through an enabling

institutional environment, and from regulatory provisions as well as credit guarantee schemes to traditional revenue-oriented financing instruments such as green bonds, innovative debt swap programs, or multilateral development bank and climate fund financing.

In order to enhance access to adaptation finance and maximize the value of existing resources, current barriers and challenges need to be overcome. In particular, standardized methodologies are vital for assessing country-specific climate vulnerabilities and risks and in turn identifying adaptation needs. In addition, a clear taxonomy and well-defined evaluation methodology are important to create a collective understanding of what qualifies as adaptation action. Fostering cooperation and communication between ministries and decision-makers at all levels of policymaking can create an enabling institutional framework and support the prioritization of adaptation at the planning and funding stage. This can help generate synergies and avoid distortions.

A clear policy, legal, and regulatory framework that takes international standards and good practices into account while at the same time responding to local needs and circumstances is needed to establish an enabling investment environment for project identification and active private sector engagement. Similarly, a comprehensive monitoring and evaluation system and ambitious budget tagging and tracking will allow supervision of whether funds have been used for their purpose, help to respond to reporting requirements by funders, enhance transparency, and build trust.

Overall, a holistic approach to climate change adaptation that mainstreams climate considerations into all stages of national development planning can help maximize the value of existing financial instruments for adaptation. Continuous knowledge sharing among all stakeholders, including fostered South–South cooperation, as well as comprehensive capacity-building efforts can facilitate the translation of qualitative needs assessments into actually costed adaptation projects.