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Climate Finance Worldwide and in the MENA Region: Challenges, Opportunities, and the way forward



Prepared by: Menna Mahmoud
Research & Awareness Department
Egyptian Banking Institute

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Abstract:

This paper explores the landscape of climate finance worldwide, with a focus on the Middle East and North Africa (MENA) region. It analyzes the challenges and opportunities associated with climate finance, highlighting the funding constraints, accessibility issues, and governance shortcomings that hinder its effective implementation. The paper examines the current state of climate finance mechanisms and funding sources globally and explores the specific context of the MENA region. It identifies opportunities for mobilizing climate finance and proposes strategies to overcome the challenges, aiming to support sustainable development and climate resilience efforts in the region and beyond, with a special focus on Egypt.

Keywords: climate finance, worldwide, MENA region, challenges, opportunities, funding constraints, accessibility, governance, adaptation, mitigation sustainable development, climate resilience, Egypt.

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Introduction

Background and Significance of Climate finance

Climate change has emerged as a pressing global concern, with profound implications for the environment, economies, and societies across the globe. To address the challenges posed by climate change, there is an increasing need for substantial financial resources to support the transition to low-carbon and climate-resilient economies. Climate finance has gained prominence as a vital mechanism for mobilizing and allocating funds towards climate-related activities, including mitigation, adaptation, and sustainable development efforts.¹

Climate finance refers to the flow of financial resources, investments, and support mechanisms directed towards projects, programs, and policies that aim to mitigate greenhouse gas emissions, enhance adaptive capacity, and foster sustainable development in the face of climate change.² It plays a crucial role in financing activities and initiatives that contribute to reducing emissions, promoting clean energy, enhancing energy efficiency, building climate resilience, and supporting vulnerable communities.³

The Evolution of Climate Finance

Climate change poses significant challenges that require substantial financial resources to address. The concept of climate finance has evolved over time as a mean to mobilize and allocate funds for climate change mitigation, adaptation, and resilience efforts. This section provides a historical overview of the development of climate finance, tracing its origins and key milestones in international climate negotiations, and highlighting the emergence of various climate finance mechanisms.

¹ IPCC. (2014). Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press.

² UNFCCC. (2010). Report of the Conference of the Parties on its sixteenth session, held in Cancun from 29 November to 10 December 2010. Retrieved from:
<https://unfccc.int/resource/docs/2010/cop16/eng/07a01.pdf>

³ World Bank. (2020). State and Trends of Carbon Pricing 2020. Retrieved from:
<https://openknowledge.worldbank.org/bitstream/handle/10986/34167/9781464816063.pdf^3>

- Early Recognition of the Need for Climate Finance: The need for financial resources to address climate change has been recognized by the United Nations Framework Convention on Climate Change (UNFCCC) negotiations in the early 1990s. The UNFCCC, adopted in 1992, acknowledged the differentiated responsibilities of developed and developing countries in addressing climate change, including the provision of financial resources and technology transfer to support developing countries' climate actions.⁴
- The Kyoto Protocol and the Clean Development Mechanism: The Kyoto Protocol, adopted in 1997, introduced the Clean Development Mechanism (CDM) as a market-based approach to climate finance. The CDM allowed developed countries to offset their emissions by investing in emission reduction projects in developing countries and earning Certified Emission Reduction (CER) credits. The CDM aimed to facilitate technology transfer, promote sustainable development, and provide a new source of climate finance for developing countries.⁵
- The Copenhagen Accord and the Green Climate Fund: The Copenhagen Accord, agreed upon in 2009, marked a significant milestone in climate finance. It recognized the need to mobilize significant resources to support climate change actions, particularly in developing countries. The accord proposed the goal of jointly mobilizing \$100 billion per year by 2020 from a variety of sources to address the needs of developing countries⁶. As a result, the Green Climate Fund (GCF) was established in 2010 as a dedicated fund to support developing countries' climate change projects and programs⁷.
- The Paris Agreement and Enhanced Climate Finance Commitments: The Paris Agreement, adopted in 2015, reaffirmed the commitment of developed countries to mobilize \$100 billion per year in climate finance by 2020. The agreement also emphasized the need to scale up financial resources and make them accessible to

⁴ UNFCCC. (1992). United Nations Framework Convention on Climate Change. Retrieved from https://unfccc.int/sites/default/files/english_paris_agreement.pdf

⁵ UNFCCC. (n.d.). Clean Development Mechanism (CDM). Retrieved from <https://unfccc.int/process/the-kyoto-protocol/mechanisms/clean-development-mechanism-cdm>

⁶ UNFCCC. (2009). The Copenhagen Accord. Retrieved from <https://unfccc.int/resource/docs/2009/cop15/eng/l07.pdf>

⁷ GCF. (n.d.). Green Climate Fund. Retrieved from <https://www.greenclimate.fund/home>

developing countries to support their climate actions⁸. The agreement further called for a collective effort to increase the flow of climate finance to achieve the goals of the agreement.

- Diverse Climate Finance Mechanisms: Over the years, various climate finance mechanisms and initiatives have emerged. These include multilateral funds like the Green Climate Fund (GCF) and the Adaptation Fund, bilateral climate finance programs by developed countries, private sector investments through green bonds and climate funds, and regional and national climate finance initiatives. These mechanisms aim to mobilize resources from multiple sources and channels to address the financing needs for climate change actions⁹.

In conclusion, the history of climate finance demonstrates the evolving recognition of the need to provide financial resources to address climate change. From the early recognition of differentiated responsibilities to the establishment of dedicated climate finance mechanisms, international negotiations have shaped the landscape of climate finance. The emergence of diverse mechanisms reflects the growing awareness of the need for collaboration and innovative financing approaches to meet the funding requirements for climate change mitigation and adaptation efforts.

Climate Finance: Global Landscape

Overview of Global Climate Finance Mechanisms and Institutions

Climate finance mechanisms and institutions are essential components of the global response to climate change. They play a critical role in mobilizing and channeling financial resources to support climate change mitigation, adaptation, and resilience efforts worldwide. This section provides an overview of key global climate finance mechanisms and key institutions, highlighting their objectives, functions, and contributions to addressing the challenges of climate change, scaling up climate finance and supporting climate actions worldwide.

1. Green Climate Fund (GCF):

⁸ UNFCCC. (2015). Paris Agreement. Retrieved from https://unfccc.int/sites/default/files/english_paris_agreement.pdf

⁹ World Bank. (2019). Climate Finance in 2018: A Landscape of Progress. Retrieved from <https://openknowledge.worldbank.org/bitstream/handle/10986/31667/Climate-Finance-in-2018.pdf>

The Green Climate Fund, established in 2010 under the United Nations Framework Convention on Climate Change (UNFCCC), is a prominent global climate finance mechanism. The GCF aims to support developing countries in their climate action by providing financial resources to mitigate greenhouse gas emissions and enhance climate resilience. It channels funds through a variety of financial instruments, including grants, concessional loans, equity investments, and guarantees. The GCF focuses on promoting a balanced approach between climate change mitigation and adaptation and aims to mobilize both public and private sector resources¹⁰.

2. Global Environment Facility (GEF):

The Global Environment Facility is an international financial institution that provides financial resources and technical assistance for global environmental projects and programs. The GEF has been a key player in addressing climate change through its Climate Change Focal Area. It supports initiatives related to climate change mitigation, adaptation, technology transfer, capacity-building, and knowledge sharing. The GEF operates through grants and concessional funding, working in partnership with recipient countries, civil society organizations, and other stakeholders to promote sustainable development and environmental benefits¹¹.

3. Multilateral Development Banks (MDBs):

Multilateral Development Banks, such as the World Bank Group, Asian Development Bank, and African Development Bank, are instrumental in mobilizing and disbursing climate finance. These institutions provide financial resources, technical expertise, and policy advice to support climate-related projects and programs in developing countries. MDBs invest in various sectors, including renewable energy, sustainable infrastructure, climate-smart agriculture, and climate resilience. They leverage their resources, partnerships, and knowledge to catalyze private sector investments, strengthen institutional capacity, and promote sustainable development goals in recipient countries.¹²

4. Adaptation Fund:

The Adaptation Fund was established under the Kyoto Protocol of the UNFCCC to finance concrete adaptation projects and programs in developing countries. It focuses on supporting vulnerable communities and ecosystems in building resilience and adapting to

¹⁰ Green Climate Fund. (n.d.). Retrieved from <https://www.greenclimate.fund/home>

¹¹ Global Environment Facility. (n.d.). Retrieved from <https://www.thegef.org/>

¹² World Bank. (n.d.). Climate Change. Retrieved from <https://www.worldbank.org/en/topic/climatechange>

the impacts of climate change. The Adaptation Fund provides direct access to funding for developing countries, allowing them to implement adaptation initiatives tailored to their specific needs. The fund is primarily financed through a share of proceeds from the Clean Development Mechanism (CDM) and voluntary contributions¹³.

5. Climate Investment Funds (CIFs):

The Climate Investment Funds comprise several funding instruments designed to support climate change mitigation and adaptation in developing countries. These funds include the Clean Technology Fund, the Forest Investment Program, and the Pilot Program for Climate Resilience. The CIFs aim to leverage additional resources and promote transformative actions in key sectors such as renewable energy, sustainable forest management, and climate resilience. They provide financial resources, technical assistance, and capacity-building support to recipient countries to address climate change challenges¹⁴.

Funding Sources and Flows for Climate Finance

Climate finance relies on a diverse range of funding sources and flows, which are critical in mobilizing financial resources and supporting climate-related initiatives worldwide. This section provides an overview of key funding sources and flows for climate finance, supported by relevant references.

1. Public Finance:

Public finance includes financial resources provided by governments and public institutions to support climate-related activities. This includes funds allocated from national budgets, development aid, and climate-specific funds. Public finance can be directed towards renewable energy projects, climate adaptation initiatives, capacity-building programs, and policy development¹⁵.

2. International Climate Funds:

¹³ Adaptation Fund. (n.d.). Retrieved from <https://www.adaptation-fund.org/>

¹⁴ Climate Investment Funds. (n.d.). Retrieved from <https://www.climateinvestmentfunds.org/>

¹⁵ Bumpus, A., & Liverman, D. (2018). Carbon cowboys, markets, and climate finance. *Wiley Interdisciplinary Reviews: Climate Change*, 9(2), e507. doi: 10.1002/wcc.507

International climate funds are established to provide financial support for climate projects and programs in developing countries. Notable funds include the Green Climate Fund (GCF), Global Environment Facility (GEF), Adaptation Fund, and Climate Investment Funds (CIFs). These funds receive contributions from developed countries, multilateral institutions, and private sector entities and channel the funds to climate-related initiatives¹⁶.

3. Private Sector Investment:

Private sector investment plays a crucial role in climate finance, with commercial banks, institutional investors, and private equity firms contributing to climate-friendly projects. Private sector investments flow into renewable energy infrastructure, energy efficiency projects, sustainable agriculture, and other climate-related sectors. Financial instruments such as green bonds and climate-focused investment funds facilitate private sector participation¹⁷.

4. Multilateral Development Banks (MDBs):

Multilateral Development Banks, including the World Bank Group, Asian Development Bank and African Development Bank, play a significant role in climate finance. These institutions provide financial resources, technical assistance, and policy advice to support climate-related projects and programs in developing countries. MDBs leverage their resources to mobilize additional funds from capital markets and other sources¹⁸.

5. Carbon Market Mechanisms:

Carbon market mechanisms incentivize emission reductions and carbon sequestration activities. The Clean Development Mechanism (CDM) and voluntary carbon markets generate financial flows by allowing developed countries to invest in emission reduction projects in developing countries. These mechanisms create carbon credits that can be traded and sold in compliance and voluntary markets¹⁹.

6. Bilateral and Multilateral Assistance:

¹⁶ Roberts, J. T., & Parks, B. C. (2007). A climate of injustice: Global inequality, North-South politics, and climate policy. MIT Press.

¹⁷ Hsu, A., Höhne, N., Kuramochi, T., Roelfsema, M., Weinfurter, A., Xie, Y., & Lütkehermöller, K. (2018). A research roadmap for quantifying non-state and subnational climate mitigation action. *Nature Climate Change*, 8(7), 607-614. doi: 10.1038/s41558-018-0202-4

¹⁸ Streck, C., Guigon, P., & Rocha, M. (2015). The Paris climate agreement: Analysis, assessment and outlook. *Oxford Review of Economic Policy*, 32(2), 259-279. doi: 10.1093/oxrep/grv019

¹⁹ : Schneider, L., Kollmuss, A., & Lazarus, M. (2010). Voluntary carbon markets: An international business guide to what they are and how they work. Earthscan.

Bilateral and multilateral assistance involves financial resources provided by individual countries or groups of countries to support climate-related initiatives in other countries. Developed countries provide grants, concessional loans, and technical assistance to developing countries to help them address climate change challenges and promote sustainable development²⁰.

Funding Constraints and limitations

Climate finance faces various constraints and limitations that hinder its effectiveness and impact. This section explores the key funding constraints and limitations of climate finance.

1. Insufficient Funding Levels:

One of the major challenges in climate finance is the inadequacy of funding levels to meet the growing demand for climate-related projects and programs. The scale of funding required for effective climate action far exceeds the current available resources. This constraint limits the ability to implement ambitious climate goals and hampers the achievement of the targets set in international agreements such as the Paris Agreement²¹.

2. Limited Access to Finance:

Access to climate finance is a significant challenge for many developing countries, particularly the least developed countries and small island states. These countries often lack the necessary financial infrastructure, capacity, and expertise to access and effectively utilize climate finance. Limited access to finance hinders their ability to implement climate projects and initiatives, exacerbating the climate finance gap²².

3. High Transaction Costs:

Climate finance transactions are often associated with high transaction costs, including administrative fees, due diligence processes, and monitoring and reporting requirements. These costs can be particularly burdensome for small-scale projects and developing

²⁰ Paterson, M. (2012). The role of non-state actors in environmental governance. In D. Held, A. McGrew, D. Goldblatt, & J. Perraton (Eds.), *Global Transformations Reader* (2nd ed., pp. 369-377). Polity Press

²¹ Dzebo, A., & Cabeza-García, L. (2019). Climate finance and green bonds: The role of private sector in climate change mitigation. *Renewable and Sustainable Energy Reviews*, 101, 353-364. doi: 10.1016/j.rser.2018.10.015

²² Roberts, J. T., & Parks, B. C. (2007). *A climate of injustice: Global inequality, North-South politics, and climate policy*. MIT Press.

countries with limited resources. The high transaction costs act as a deterrent, making it challenging to mobilize and deploy climate finance efficiently²³.

4. Uncertain Policy and Regulatory Frameworks:

Uncertainty surrounding climate policies and regulatory frameworks poses a significant constraint on climate finance. Investors and financial institutions require clear and stable policy signals to make long-term investments in climate projects. Inconsistencies, changing regulations, and policy uncertainties create risks and discourage private sector involvement in climate finance²⁴.

5. Lack of Blended Finance Approaches:

Blended finance, which combines public and private sector resources, is an effective approach to mobilize climate finance. However, the lack of innovative blended finance mechanisms and instruments is a constraint. Blended finance models that leverage public funds to attract private sector investments are crucial for scaling up climate finance and bridging the investment gap²⁵.

6. Political and Geopolitical Factors:

Political dynamics and geopolitical considerations can impact the allocation and flow of climate finance. Geopolitical tensions, lack of political will, and competing priorities among nations can impede the effective mobilization and distribution of climate finance. These factors can result in uneven distribution and limited resources for vulnerable regions and countries²⁶.

Also, promoting gender equity in climate finance is crucial. Women often face specific challenges related to climate change impacts and have unique knowledge and expertise in addressing climate issues. Ensuring gender-responsive climate finance involves

²³ Bumpus, A., & Liverman, D. (2018). Carbon cowboys, markets, and climate finance. *Wiley Interdisciplinary Reviews: Climate Change*, 9(2), e507. doi: 10.1002/wcc.507

²⁴ Sovacool, B. K. (2016). Valuing the societal benefits of geothermal power: A critical review. *Energy Policy*, 96, 411-419. doi: 10.1016/j.enpol.2016.06.018

²⁵ Carney, M. (2015). Breaking the tragedy of the horizon- climate change and financial stability. Speech given at Lloyd's of London. Retrieved from: <https://www.bankofengland.co.uk/speech/2015/breaking-the-tragedy-of-the-horizon-climate-change-and-financial-stability>

²⁶ Depledge, J., & Yamin, F. (2019). The Paris Agreement: Reflections on its significance and challenges for climate governance. *Climate Policy*, 19(8), 977-985. doi: 10.1080/14693062.2019.1584820

integrating gender considerations into funding criteria, promoting women's participation in decision-making processes, and supporting women-led climate initiatives²⁷.

Developments In International Climate Finance

International climate finance has seen remarkable progress in recent years, reflecting the increased recognition of the urgent need to address climate change.

The adoption of the Paris Agreement in 2015 marked a significant milestone in global climate action. The agreement emphasized the importance of climate finance, setting a goal of mobilizing \$100 billion per year by 2020 to support developing countries in their climate mitigation and adaptation efforts. The Green Climate Fund (GCF), established under the United Nations Framework Convention on Climate Change (UNFCCC), serves as a primary mechanism for channeling climate finance to developing countries²⁸.

There has been a notable increase in climate finance commitments from developed countries and international financial institutions. To facilitate the provision of climate finance, the Convention established a financial mechanism to provide financial resources to developing country Parties. The financial mechanism also serves the Kyoto Protocol and the Paris Agreement.

The Convention states that the operation of the financial mechanism can be entrusted to one or more existing international entities. The Global Environment Facility (GEF) has served as an operating entity of the financial mechanism since the Convention's entry into force in 1994. At COP 16, in 2010, Parties established the Green Climate Fund (GCF) and in 2011, GCF has been designated as an operating entity of the financial mechanism. The financial mechanism is accountable to the COP, which decides on its policies, program priorities and eligibility criteria for funding.

In addition to providing guidance to the GEF and the GCF, Parties have established two special funds; the Special Climate Change Fund (SCCF) and the Least Developed Countries Fund (LDCF), both managed by the GEF and the Adaptation Fund (AF) established under the Kyoto Protocol in 2001.

At the Paris Climate Change Conference in 2015, the Parties agreed that the operating entities of the financial mechanism – GCF and GEF – as well as the SCCF and the LDCF

²⁷ Benton, F., & Klein, R. (2014). Climate change adaptation governance and policy: An introduction. Wiley Interdisciplinary Reviews: Climate Change, 5(4), 437-442.

²⁸ United Nations Framework Convention on Climate Change. (2015). Paris Agreement. Retrieved from https://unfccc.int/sites/default/files/english_paris_agreement.pdf

shall serve the Paris Agreement. Regarding the Adaptation Fund serving the Paris Agreement, negotiations are underway in the Ad hoc Working Group on the Paris Agreement (APA).

The involvement of the private sector in climate finance has been gaining momentum. Many companies are recognizing the risks and opportunities associated with climate change and are investing in sustainable and low-carbon projects. This includes the issuance of green bonds, which are financial instruments specifically designed to fund climate and environmental projects²⁹.

There have been innovations in climate finance mechanisms aimed at mobilizing private sector investments and leveraging public funds. Blended finance, for example, combines public and private sector resources to finance climate projects. Climate finance instruments such as the Climate Investment Funds and the Global Innovation Lab for Climate Finance provide platforms for testing and scaling up innovative financing solutions³⁰.

While mitigation has traditionally received more attention, there has been an increasing focus on adaptation finance to help vulnerable countries and communities adapt to the impacts of climate change. International initiatives and funds, such as the Adaptation Fund and the Least Developed Countries Fund, aim to support adaptation projects and build resilience in developing countries³¹.

The long-term finance process is aimed at progressing on the mobilization and scaling up of climate finance of resources originating from a wide variety of sources, public and private, bilateral and multilateral, including alternative sources. The COP decided on the following activities through ?? to 2020:

- organization, by the secretariat, of annual in-session workshops;
- developed countries providing, on a biennial basis, information on strategies and approaches for scaling up climate finance;
- and convening of biennial high-level ministerial dialogue on climate finance.

²⁹ International Finance Corporation. (2020). Green bond impact report 2020. Retrieved from <https://www.ifc.org/wps/wcm/connect/926a94e4-eeaa-40e3-819f-ae8781c5f1a3/IFC+Green+Bond+Impact+Report+2020.pdf?MOD=AJPERES&CVID=>

³⁰ Climate Policy Initiative. (2019). The landscape of climate finance 2019. Retrieved from <https://www.climatepolicyinitiative.org/wp-content/uploads/2019/11/The-Landscape-of-Climate-Finance-2019.pdf>

³¹ United Nations Framework Convention on Climate Change. (n.d.). Adaptation finance. Retrieved from <https://unfccc.int/topics/climate-finance/the-big-picture/adaptation-finance>

Through the Cancun Agreements in 2010, developed country Parties committed, in the context of meaningful mitigation actions and transparency on implementation, to a goal of mobilizing jointly USD 100 billion per year by 2020 to address the needs of developing countries. When adopting the Paris Agreement, Parties confirmed this goal, called for a concrete road map to achieve the goal by 2020, and agreed that prior to 2025 the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA) shall set a new collective quantified goal from a floor of USD 100 billion per year³².

The European Union (EU), its Member States and the European Investment Bank, are together the biggest contributor of public climate finance to developing economies, providing **€23.04 billion in 2021**³³.

In 2021, the European Commission committed €2.50 billion to developing economies, with a significant share (almost 40%) going to fund climate adaptation activities.

Furthermore, while 20% of the whole EU budget for 2014-2020 was spent on climate-related projects, this target has become 30% for 2021-2027 and 35% for the Neighborhood, Development and International Cooperation Instrument (NDICI)³⁴.

In addition, the European Investment Bank provided €2.56 billion in climate finance to developing economies in 2021. It finances, for example, energy efficiency and renewable energy projects in Africa and other regions, and often blends funds with those from the Commission and national agencies in EU countries³⁵.

In September 2022, the OECD published a report on developed economies' finance for climate action in developing economies. It shows that developed economies are making progress on climate finance and the indications are that the upward trend will continue. Climate finance to developing economies reached \$83.3 billion in 2020, up from \$58.6 billion in 2016³⁶.

At the 15th Conference of Parties (COP15) of the UNFCCC in Copenhagen in 2009, developed countries committed to a collective goal of mobilizing USD 100 billion per year

³² <https://unfccc.int/topics/introduction-to-climate-finance>

³³ https://climate.ec.europa.eu/eu-action/international-action-climate-change/international-climate-finance_en

³⁴ https://international-partnerships.ec.europa.eu/funding-and-technical-assistance/funding-instruments/global-europe-neighbourhood-development-and-international-cooperation-instrument_en

³⁵ https://climate.ec.europa.eu/eu-action/international-action-climate-change/international-climate-finance_en

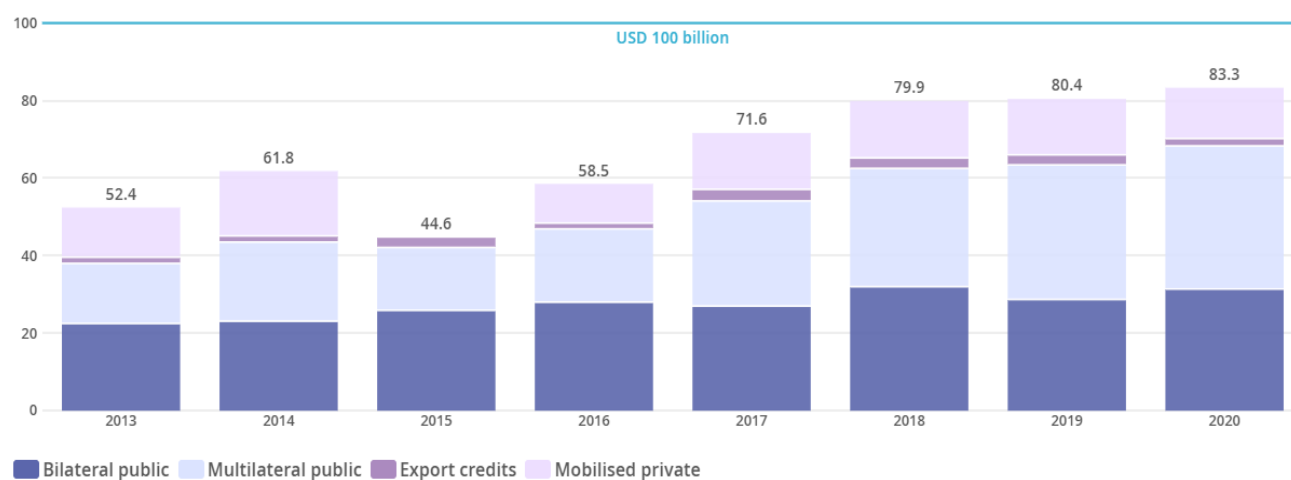
³⁶ OECD (2021), *Climate Finance Provided and Mobilised by Developed Countries: Aggregate Trends Updated with 2019 Data*, Climate Finance and the USD 100 Billion Goal, OECD Publishing, Paris, <https://doi.org/10.1787/03590fb7-en>.

by 2020 for climate action in developing countries, in the context of meaningful mitigation actions and transparency on implementation. The goal was formalized at COP16 in Cancun, and was reiterated and extended to 2025³⁷ at COP21 in Paris.

At the request of donor countries, the OECD has been tracking progress towards this goal since 2015. It produces regular analyses of progress made, based on a robust accounting framework that is consistent with the COP24 outcome agreed by all Parties to the Paris Agreement on funding sources and financial instruments.

The COP27, held in Sharm el-Sheikh, Egypt, brought together more than 45,000 persons from across the globe to deliberate on important actions for addressing the climate. The highlight of COP27 was the historic decision to establish a fund for responding to loss and damage. It is a significant milestone because it comes after almost three decades of demand and it sets a precedence for climate justice. The next COP will conduct the first global assessment, so, it will be crucial for countries to assess and eventually enhance their actions and support as per their obligations under the United Nations Framework Convention on Climate Change (UNFCCC).

Climate finance for developing countries Climate finance provided and mobilised by developed countries, in USD billions



Note: The gap in the private finance series in 2015 is due to the implementation of enhanced measurement methodologies. As a result, private flows for 2015-18 cannot be directly compared with private flows for 2013-14.

Source: OECD (2022), *Aggregate Trends of Climate Finance Provided and Mobilised by Developed Countries in 2013-2020*.



These developments in international climate finance signify a growing commitment to mobilize financial resources and support climate action globally. However, continued efforts are needed to scale up funding, enhance transparency, strengthen accountability

³⁷ <https://www.oecd.org/climate-change/finance-usd-100-billion-goal/>

mechanisms, and ensure the effective utilization of climate finance to address the urgent challenges posed by climate change.

Climate finance risks

Since the Financial Stability Board (FSB)'s Task Force on Climate-related Financial Disclosures (TCFD) recommendations in 2017, UNEP FI has conducted a series of piloting exercises. It has also developed publications to include physical and transition risk assessment tools. The start of the piloting series, known as Phase I of the TCFD Banking Program, collaborated with Oliver Wyman and Acclimatize to develop an approach for evaluating corporate lending portfolio exposure to transition and physical risks under different climate scenarios³⁸.

In 2019, UNEP FI designed Phase II of the UNEP FI TCFD³⁹ Banking Program to help financial institutions to expand their toolkit for climate risk assessment and disclosure, exploring climate scenarios, data and methodologies, and reporting and governance issues.⁴⁰ After the finalization of Phase II, UNEP FI has continued to contribute to the climate risk assessment universe through in-depth research and publications.

The Climate Risk Landscape report, published by UNEP FI's on 2023⁴¹, aims to assist financial actors to better understand this diverse and dynamic landscape of climate risk tools. The report explores the major market trends in both physical risk and transition risk tools and provides detailed analysis on dozens of individual tools. Some of the key findings that the report revealed are as follows:

Greater integration of different climate risks within tools: tool providers have recognized the need for financial institutions to understand the full range of climate risks faced by a counterparty of portfolio. This has led to the expansion of integrated physical and transition risk tools as well as additional coverage of specific hazards within physical and

³⁸ <https://www.unepfi.org/wordpress/wp-content/uploads/2018/04/EXTENDING-OUR-HORIZONS.pdf>

³⁹ TCFD (2017). Recommendations of the Task Force on Climate-related Financial Disclosures Final Report. [online] Available at: assets.bbhub.io/company/sites/60/2020/10/FINAL-2017-TCFD-Report-11052018.pdf#page=33

⁴⁰ Beyond the Horizon: New Tools and Frameworks for transition risk assessments from UNEP FI's TCFD Banking Program, 2020, UNEP FI
<https://www.unepfi.org/wordpress/wp-content/uploads/2020/10/Beyond-the-Horizon.pdf>

⁴¹ The 2023 Climate Risk Landscape, March 2023, UNEP FI
<https://www.unepfi.org/themes/climate-change/2023-climate-risk-landscape/>

transition risk assessments. This work is still ongoing and many risk interaction effects and tipping points are not typically captured.

Focus on net-zero commitments within tools: as countries and companies around the world set ambitious targets for reducing greenhouse gas emissions, climate risk tools are being developed to help them set targets, assess their alignment, and implement their net-zero strategy. That has included the incorporation of a greater range of net-zero scenarios within tools as well as greater granularity for sectoral decarbonization pathways.

Rising regulatory demands are accelerating tool use and functionality: mandates for climate-related financial disclosures have come into effect in jurisdictions across the world. Regulatory climate scenario exercises and climate stress tests are becoming more common as well. This regulatory pressure has both expanded the demand for climate risk tools and also resulted in a growing suite of purpose-built tools, designed to address climate disclosures and scenario exercises.

New data and new insights are top priorities for financial institutions: many financial institutions involved in UNEP FI's working group on climate risk tools expressed a desire for tools to be able to continue to progress on addressing data gaps and offering decision-useful information. As climate tools become more central to financial analysis, institutions appear excited to explore leading-edge data and decisioning techniques such as those offered by geospatial data and machine learning algorithms.

Climate Finance in the MENA region

Contextualizing Climate Finance in the MENA Region

The Middle East and North Africa (MENA) region is characterized by unique socio-economic and environmental factors that shape the context of climate finance in the region. Understanding these contextual factors is crucial for effectively mobilizing and utilizing climate finance to address climate change challenges and promote sustainable development in the MENA region.

MENA is one of the world's least climate resilient areas. It is very vulnerable to the effects of climate change on economies and livelihoods, with inadequate resources to implement adaption measures. Indeed, the Middle East and North Africa (MENA) region is one of the world's most water-stressed, with more than 60% of its population having difficulty accessing safe drinking water. The region is dependent on climate-sensitive agriculture, and its flood-prone coastal zones house a sizable portion of the population as well as significant economic activity⁴².

A practical Roadmap for financial institutions looking to select a climate tool

What do you want? Determining the necessary specifications	1. Asset Class Decide which asset class will be assessed:	2. Coverage Identify what to assess:	3. Scenario Provide analysis for the required scenarios:	4. Output Output metrics & format:
	<ul style="list-style-type: none"> Make sure that your tool is well developed within your specific asset class. There is an increase of coverage of more asset classes (public/private) among many tools. Poor coverage of real estate, mortgages & agriculture. 	<ul style="list-style-type: none"> Coverage at the asset, sector, firm, or country levels Assessment of the portfolio's exposure to current and future GHG emissions Physical Hazards, could be both acute/chronic Resilience and adaptive capacity Transition Risks Orderly/Disorderly Company and portfolio exposure Portfolio vulnerability 	<ul style="list-style-type: none"> Most vendors use the IPCC, IEA or NGFS scenarios. IEA and IAMs are typically used for temperature analysis. Market movements towards scenarios that capture the speed of transition. Therefore, it is important that banks also look into vendors that provide NGFS scenario analysis (orderly, disorderly, Hothouse). Provides different time horizons 	<ul style="list-style-type: none"> Most providers express their output in quantitative or financial terms USD, kg GHG emissions VaR, Expected Return, PD, Credit Ratings Qualitative or report outputs Narrative dashboards Temperature alignment TCFD-aligned automated report features
What do you need? Evaluation of the analytical tool	1. Validity	2. Usability	3. Analysis depth	4. Transferability
	<div>Transparency</div> <ul style="list-style-type: none"> Assumptions Disclosure of methodology Interpretation <div>Verification & credibility</div> <ul style="list-style-type: none"> Data sources Citations & reviews Third-party validation <div>Science-based approach</div> <ul style="list-style-type: none"> Scientific resources supporting its model Peer-reviewed 	<div>User friendliness</div> <ul style="list-style-type: none"> Clear layout and customised visualization Intuitive and explanatory modules for the platform and its structure Access to the platform Interactivity and possibility of incremental analysis <div>Flexibility</div> <ul style="list-style-type: none"> Customizable platform according to needs 	<div>Output interpretability</div> <ul style="list-style-type: none"> Model structure, scenarios and assumptions reported Risk amplification <div>Uncertainty</div> <ul style="list-style-type: none"> Baseline adaptable Scenario-neutral (various risk realisations) Probability distribution of input and output 	<div>Transferable results</div> <ul style="list-style-type: none"> The results are feasible to translate into financial measures relevant to the beneficiary <div>Incorporation</div> <ul style="list-style-type: none"> Output and takeaways from the tool can be used in setting business strategies and portfolio monitoring

Figure 13: A Roadmap for FIs in choosing a climate risk assessment tool (UNEP FI, 2023).

Agriculture in the area is dependent on the climate, and a significant portion of the population lives in the flood-prone coastal zones. These elements are anticipated to hasten desertification, decrease arable lands, decrease crop yields, and ultimately disrupt agricultural patterns and food chains in a way that jeopardizes food security. Rising temperatures and extreme heat waves linked to altered precipitation patterns are also predicted to have these effects. Additionally, other negative effects of extreme weather, such as storms and droughts, are linked to climate change. As a result, more individuals will be forced to move within their own countries, notably the poorest and those living in the most vulnerable places⁴³.

The likelihood of flooding is further increased by sea level rise brought on by climate change; Alexandria, Egypt's second-largest city, and Basra, Iraq, have been identified as having a high risk of future recurrent flooding⁴⁴. In the MENA region's dry conditions, climate change is increasing strain on already-scarce resources and escalating risks like food insecurity, poverty, water stress, social unrest, and political instability.

The MENA region is also known for its significant reserves of fossil fuels, including oil and natural gas. This reliance on fossil fuel resources presents both challenges and opportunities for climate finance. While fossil fuel revenues have traditionally fueled economic growth in the region, there is a growing recognition of the need to diversify energy sources and reduce greenhouse gas emissions. Climate finance can support the transition to renewable energy and energy efficiency, enabling countries to reduce their carbon footprint and mitigate climate change.

The MENA region boasts abundant renewable energy resources, particularly solar and wind energy. With ample sunshine and strong winds, there is an immense potential for renewable energy generation. Climate finance can be directed towards financing large-scale renewable energy projects, such as solar farms and wind parks, enabling the MENA region to harness its renewable energy potential. Investing in renewable energy through climate finance can not only contribute to mitigating climate change, but also stimulate economic growth, job creation, and technology transfer in the region.

Moreover, the political and economic contexts of the MENA region influence the mobilization and utilization of climate finance. Political stability, governance frameworks, and policy coherence are crucial factors that can attract climate finance and create an

⁴³ Almazroui, M., Islam, M.N., Saeed, S., Saeed, F. & Ismail, M. Future Changes in Climate over the Arabian Peninsula based on CMIP6 Multimodel Simulations. *Earth Syst. Environ.* 4, 611–630 (2020b). Doi: 10.1007/s41748-020-00183-5

⁴⁴ Why Middle East cities should worry about climate change, January 05, 2020.
<https://www.arabnews.com/node/1608486/middle-east>

enabling environment for investment. Economic diversification strategies, driven by climate finance, can help countries in the region reduce their dependence on fossil fuels, stimulate new industries, and create sustainable employment opportunities.

Funding Landscape and sources in MENA region

There is an urgent need to provide sustainable finance resources for climate adaptation and mitigation given the hazards connected with climate change in the MENA area. While mitigation focuses on speeding the shift to a resilient, inclusive, low-carbon energy economy and lowering carbon emissions, adaptation refers to strengthening resilience to environmental and social risks brought on by extreme climate events⁴⁵.

The Climate Policy Initiative claims that recent finance flows to the MENA area for the purpose of funding climate mitigation and adaptation projects have been among the lowest of any other global region. For instance, the MENA region received less international climate money than East Asia and the Pacific Islands, which together received an estimated \$293 billion in 2019 and 2020, while the MENA region received the lowest share, with just \$16 billion during the same period⁴⁶.

Additionally, the financing that the MENA area does receive is distributed in an inconsistent way. Despite the region's urgent need for adaptation, 71% of foreign climate finance to the region from 2003 to 2021 went to mitigation projects, according to the Climate Finance Regional Briefing published by Heinrich Boll Stiftung in 2022⁴⁷. According to a 2021 report from the U.N. Environment Program⁴⁸, more than 75% of all international finance flows went to mitigation programs in the energy, transportation, and infrastructure sectors, while less than 15% went to water and sanitation initiatives. Most of this finance was in the form of loans or concessional loans, dedicated to a few renewable energy mega-projects and provided by the Clean Technology Fund (CTF) and the Green Climate Fund (GCF). Furthermore, the funds are not equally distributed among recipient countries: Egypt and Morocco received the majority, at 28% and 19% of the region's total approved climate finance respectively⁴⁹, while fragile and conflict-affected

⁴⁵ UNEP Finance Initiative (2021), Promoting Sustainable Finance and Climate Finance in the Arab Region.

⁴⁶ Climate Policy Initiative [B.Naran, J.Connolly, P.Rosane, D.Wignarajah, E.Wakaba, B.Buchner]. 2022. Global Landscape of Climate Finance: A Decade of Data 2011-2020.

⁴⁷ Climate Finance Regional Briefing: Middle East and North Africa [Charlene Watson, ODI, Liane Schalatek, HBS, and Aurélien Evéquo]. FEBRUARY 2022.

https://climatefundsupdates.org/wp-content/uploads/2022/03/CF9-MENA_2021.pdf

⁴⁸ UNEP Finance Initiative (2021), Promoting Sustainable Finance and Climate Finance in the Arab Region.

⁴⁹ Climate Finance Regional Briefing: Middle East and North Africa [Charlene Watson, ODI, Liane Schalatek, HBS, and Aurélien Evéquo]. FEBRUARY 2022.

countries — like Libya and Syria — receive little or no climate finance via the multilateral climate funds⁵⁰.

Domestically, governments in the MENA area are acting to raise climate finance by fostering a supportive environment and introducing cutting-edge financial tools that support projects for climate adaptation and mitigation. For instance, Egypt issued the first green sovereign bond in the area, valued at \$750 million, with a yield of 5.25%. Similar to this, the Saudi Electric Company (SEC) developed a framework for "green sukuk" (sharia-compliant bonds) and issued two tranches, each of which was worth \$650 million. To promote investment in sustainable projects, Qatar National Bank issued a \$600 million green bond, the largest of its kind from a commercial bank in the area⁵¹. These green bonds serve as financial tools for developing green energy, clean transportation, waste management, water efficiency, and green buildings, among other environmentally friendly products and projects, in order to mitigate the effects of climate change in various MENA nations. To attract finance and direct investments towards sustainable and climate resilient projects, other governments and financial institutions are now creating green bonds and sustainable development bonds. However, the MENA region accounted for just 1% of the total \$228 billion worth of green bonds issued in 2020, underscoring the size of the untapped opportunity in the region⁵².

Unfortunately, wealthy country commitments to concrete climate funding remain very low, and many nations that are vulnerable to climate change still have difficulty securing climate finance. The Bridgetown Initiative, which was developed during COP27 in Sharm el-Sheikh, offers a potential chance to secure the climate funding required to accomplish a just green transition, particularly in vulnerable and underdeveloped areas in MENA⁵³.

The World Bank Group's Middle East and North Africa Roadmap (2021–2025)⁵⁴ provides a practical framework for classifying climate action projects into four transformative areas: 1. Food Systems, Water Security & Resilient Natural Capital, 2. Energy Transition and Low-carbon Mobility, 3. Climate-smart Cities & Resilient Coastal Economies, 4. Sustainable Finance for Climate Action.

⁵⁰ World Bank (2022). Middle East & North Africa Climate Roadmap 2021-2025. World Bank Group, Washington, DC, USA. Available at:
<https://www.worldbank.org/en/region/mena/publication/middle-east-north-africa-climate-roadmap>

⁵¹ Beyer, J. & Bayoumi, M. (2022). Financing a Green Transition in the Middle East. Mohammed Bin Rashid School of Government, Dubai, United Arab Emirates, March 2022.

⁵² Ibid

⁵³ <https://time.com/6225264/climate-reparations-rich-countries-barbados/>

⁵⁴ worldbank.org/en/region/mena/publication/middle-east-north-africa-climate-roadmap

How MENA countries are adapting to and mitigating climate change?

The physical effects of climate change, particularly sea level rise, heat stress, and water shortages, constitute a significant problem in the Middle East and North Africa and will have disastrous effects on food production, energy production, and livelihood chances. The need for business models, technologies, and investment that assist nations in managing these risks and constructing resilience in a constructive and inclusive way is being driven by the rising risks and economic losses associated with climate change.

Global public and private sector finance of climate adaptation options falls well short of the scale required to achieve resilience. The MENA region is no exception: governmental finance falls far short of expectations, while the private sector continues to struggle to obtain large-scale financing, because climate adaptation solutions typically do not fit mainstream lending requirements of size, tenor, and return, and blended finance alternatives are underutilized.

Additionally, private sector funding frequently prioritizes localized adaptation strategies (such as "flood protection" or "efficient resource use") while omitting to support comprehensive adaptation programs that increase socio-economic resilience overall. To achieve climate resilience in the area, financial institutions should increase their investment in these sectors.

The effects of climate change, such as rising temperatures, altered precipitation patterns, and the increase in the frequency of extreme weather events, are already affecting the MENA area. The socioeconomic systems, ecosystems, and wellbeing of the people in the region are all significantly impacted by these effects. To improve the region's ability to deal with the effects of climate change and lessen vulnerabilities, climate finance can support adaptation of measures including climate-resilient infrastructure, coastal protection, and early warning systems.

Many MENA countries have implemented green growth policies. However, their success in aligning national financial systems with the requirements and aspirations of sustainable development is uneven. For example, the UAE is a regional leader in sustainable finance, while Morocco is well on the road to success.⁵⁵ Climate financing has been addressed in some of Egypt's sustainable development and green finance policies, strategies, and public expenditure plans. Jordan and Bahrain have agreed to coordinate their financial

⁵⁵ UNEP FI (2021). Promoting Sustainable Finance and Climate Finance in the Arab Region. United Nations Environment Programme Finance Initiative, Geneva, Switzerland. Available at: <https://www.unepfi.org/wordpress/wp-content/uploads/2021/01/Sustainable-Arab-Finance-Report-Jan-2021.pdf>

systems in order to achieve their long-term growth goals. Saudi Arabia's national policy framework has been primarily driven by economic diversification measures aimed at reducing the country's reliance on oil exports and increasing the contribution of non-oil industries to GDP, while also enhancing private sector engagement.⁵⁶

Except for Saudi Arabia, all six countries have adopted ESG rules, engaged in sustainability reporting, and tried to promote sustainable finance through awareness campaigns and education efforts. Only three countries—the UAE, Morocco, and Egypt—have issued green bonds, but all six countries have issued traditional Islamic bonds, or sukuk, which can also be used to promote sustainable finance in the region. On the regulatory front, the UAE, Egypt, Jordan, Saudi Arabia, and Morocco have all passed public-private partnership (PPP) legislation, allowing the private sector to play a larger role in assisting the transition to a more climate resilient economy by increasing investment in green and low-carbon ventures⁵⁷.

Sustainable Finance Policies and Practices in the MENA region (UNEP FI, 2021)⁵⁸

	UAE	Egypt	Morocco	Jordan	Bahrain	KSA
Sustainable development agenda	✓	✓	✓	✓	✓	✓
Sustainable finance framework	✓	✓	✓	✓	✓	
ESG/ESG Reporting	✓	✓	✓	✓	✓	✓
Sustainable finance products & services	✓	✓	✓			
Awareness & education initiatives	✓	✓	✓	✓	✓	
Supportive regulations or enabling environment i.e., PPP	✓	✓	✓	✓		✓
Climate focused policies & strategies	✓	✓	✓	✓	✓	✓

Some of the techniques shown in the above table, such as ESG reporting standards, and sustainable finance framework, aim to scale climate change mitigation. Others, like Egypt's National Strategy for Climate Change 2050 and the Central Bank of Egypt's

⁵⁶ Ibid

⁵⁷ Ibid

⁵⁸ UNEP FI (2021). Promoting Sustainable Finance and Climate Finance in the Arab Region. United Nations Environment Programme Finance Initiative, Geneva, Switzerland. Available at: <https://www.unepfi.org/wordpress/wp-content/uploads/2021/01/Sustainable-Arab-Finance-Report-Jan-2021.pdf>

sustainable finance principles, may deal explicitly with climate adaptation financing and risk assessment.

Additionally, EY has launched its Middle East and North Africa (MENA) Climate Change Readiness Index (CCRI), a pioneering tool designed to help countries in the region assess and improve their resilience to the impacts of climate change⁵⁹.

The Index measures the readiness of the six members of the GCC as well as Egypt and Jordan across several areas such as the effectiveness of their adaptation and mitigation strategies and their ability to finance and implement these strategies.

It provides scorecards that can assist governments, investors, and citizens in tracking the performance of the included countries compared to global benchmarks on 37 quantitative and qualitative indicators of climate change readiness⁶⁰.

The index is based on a robust and transparent methodology, developed using data from reliable, validated international sources, such as those compiled by the UN system, the World Bank (WB), the International Monetary Fund (IMF) and other data aggregators, to ensure a uniform methodology and data collection process⁶¹.

Source: The EY MENA Climate Change Readiness Index, January 2023⁶².

⁵⁹ https://www.ey.com/en_eg/climate-change-sustainability-services/how-mena-countries-are-adapting-to-and-mitigating-climate-change

⁶⁰ Ibid

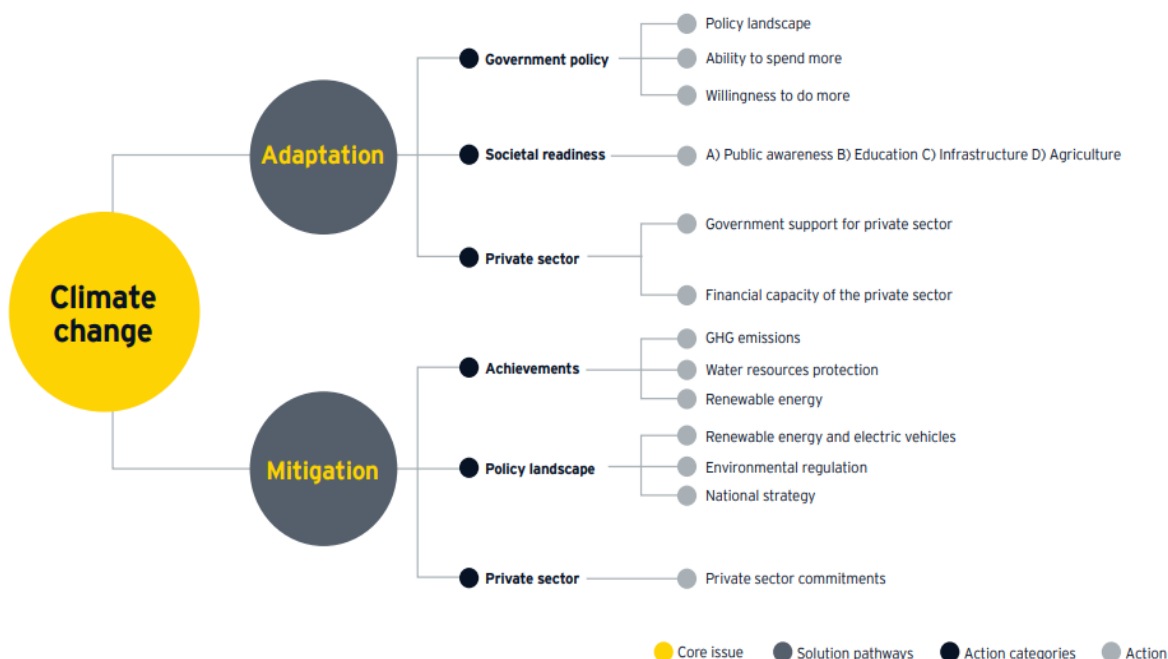
⁶¹ <https://www.zawya.com/en/business/energy/ey-launches-menas-first-climate-change-readiness-index-vhrkucvb>

⁶² https://www.ey.com/en_eg/climate-change-sustainability-services/how-mena-countries-are-adapting-to-and-mitigating-climate-change

Egypt Climate Finance Overview

Climate change is putting Egypt under more and more stress, which is exacerbated worse

How the Index is structured⁷



by rising sea levels and hotter temperatures. Precipitation variations in the Nile Delta and along the northern shoreline have an impact on important economic sectors like agriculture, which uses close to two thirds of Egypt's fresh water supply. Sustainable and green growth has assumed a central role in the nation's national development policy in order to address the ominous effects of climate change, global warming, and the rising needs of Egypt's population⁶³.

The Nile Delta in Egypt is one of the three vulnerability hotspots identified by the IPCC⁶⁴. Sea level rise, water scarcity, and extreme weather events in Egypt will have a significant impact on infrastructure, the agricultural industry, and fisheries, as well as the northern section of the Nile delta. This could have an impact on housing, telecommunications,

⁶³Egypt (2018), Ministry of Planning, Monitoring and Administrative Reform, Vision 2030: Egypt's Voluntary National Review.

⁶⁴ IPCC Sixth Assessment Report (2022):

https://www.ipcc.ch/report/ar6/wg3/downloads/report/IPCC_AR6_WGIII_Full_Report.pdf

tourism, human health, and general economic performance. Water scarcity, sea level rise, and heat waves are all issues, and biodiversity and aquaculture are negatively impacted⁶⁵.

Prior to signing the Paris Agreement in November 2015, Egypt submitted its first Nationally Determined Contributions (NDCs) to the UNFCCC to address its climate risks. In June 2022, Egypt filed its first NDC update covering the period from 2015 to 2030. Additionally, Egypt unveiled its National Climate Change Strategy and is now revising its National Adaptation Plan. As Egypt was the host of the 27th United Nations Climate Change conference (COP27), the government has incorporated climate metrics into its national sustainable development strategy, released a dedicated National Climate Change Strategy, and been actively participating in multilateral and bilateral cooperation with other nations to address the climate adaptation finance gap⁶⁶.

Additionally, the Central Bank of Egypt (CBE) has released guiding principles for sustainable finance that include climate risk management as one of their six tenets. These principles lay the groundwork for identifying and managing climate change risks as well as promoting project financing that helps combat the issue. Similar to this, the Egyptian Financial Regulatory Authority (FRA), which oversees non-banking financial institutions (NBFIs), recently required climate-related risk reporting in accordance with the Task Force on Climate Related Financial Disclosure (TCFD) recommendations for large NBFIs⁶⁷.

Egypt announced 85 projects with a total cost of \$11.9 billion in its portfolio in advance of COP27, including both adaptation and mitigation projects. The administration is still seeking funding for two adaption projects/initiatives with respective budgets of \$800 million and \$600 million. The first initiative/project is to improve the Nile valley and delta's crop production's resilience. Six solar-powered desalination plants will be built as part of the second initiative/project to lessen reliance on freshwater supplies from the Nile. Egypt is now seeking a total of US\$ 415 billion for climate-related projects, of which US\$ 300 billion are for mitigation projects and US\$ 115 billion are for adaptation projects, according to a recent declaration by the CEO of the Egyptian Environmental Affairs Agency⁶⁸.

⁶⁵ UNEP FI (2022). A New Approach to Unlocking Private Finance for Climate and The SDGs In Egypt & Morocco. United Nations Environment Programme Finance Initiative, Geneva, Switzerland. Available at: <https://www.unepfi.org/regions/africa-middle-east/a-new-approach-to-unlocking-private-finance-for-climate-and-the-sdgs-in-egypt-morocco/>

⁶⁶ Adapting to a New Climate in the MENA Region, January 2023. Available at: <https://www.unepfi.org/wordpress/wp-content/uploads/2023/03/Adapting-to-a-new-climate-MENA.pdf>

⁶⁷ Ibid

⁶⁸ <https://www.businesstodayegypt.com/Article/1/1849/Egypt-releases-Sharm-El-Sheikh-Guidebook-for-Just-Finance-to>

In keeping with a comprehensive government strategy to help SMEs and strengthen their role in the post-COVID recovery, some Egyptian banks have concentrated on SMEs as part of their sustainable finance aims. A total of EGP 117 billion was invested in SMEs through the end of December 2022, with banks being instructed by Central Bank of Egypt (CBE) to boost the percentage of SMEs in their credit facilities from 20% to 25%.

However, the financial and technical help received by SMEs often indirectly contributes to their resilience, which in turn facilitates the transition to a green economy and improves climate resilience across sectors, rather than targeting adaptation. Numerous of these SME investments were subject to traditional credit risk and financial modelling practices; as a result, they can be seen as an exciting illustration of the availability of bankable adaptation projects and the potential for financing resilience while enhancing profitability, particularly in vulnerable industries like agriculture and water or in high-risk regions like upper Egypt and the Nile Delta⁶⁹.

This case also indicates that addressing adaptation finance barriers needs collective action from different players such as private banks, Development Finance Institutions (DFIs), private companies, regulators, and other government agencies.

A summary of the adaptation and resilience initiatives that have been carried out since 2015 in the agricultural and water security sectors, as well as enhancing resilience in coastal areas in the Nile delta and North Coast cities, is provided in Egypt's updated Nationally Determined Contributions (NDC). The NDC for Egypt also includes a list of programs and goals for mitigation and adaptation that will be put into action by 2030⁷⁰. This entails planting crops that are resistant to climate change and desalination, developing resilient irrigation systems, enhancing resilience throughout the Nile delta and Mediterranean coastal cities, converting tourist resorts and hotels into resilient structures using green architecture, expanding national protectorate areas to protect biodiversity, establishing early warning systems, and putting resilient infrastructure in place in areas most affected by climate hazards⁷¹.

Given the significant size of this financial requirement and the very short timeframe to raise it, a key source of financing would be the private sector, in addition to foreign funds from governments and organizations of the Global North.

A suggested policy intervention is requiring carbon and sustainability disclosures in private sector firms through regulation, as well as developing uniform standards and

⁶⁹ McKinsey Global Institute (2022). The Net-Zero Transition: What It Could Cost, What It Could Bring. January.

⁷⁰ Egypt's First Updated Nationally Determined Contributions (2022): <https://unfccc.int/sites/default/files/NDC/2022-07/Egypt%20Updated%20NDC.pdf>

⁷¹ Ibid

taxonomies to ensure transparency, to assist the public internalize the benefits of financing climate resilience in Egypt. To secure the execution and oversight of such disclosures, this will necessitate investing in a strong governance framework⁷².

Combining public and private funding for climate resilience initiatives would protect private sector investments, thereby reducing the risks associated with those investments as well as internalizing the positive social impacts of those investments. In addition to the traditional tax reliefs, subsidies, and concession agreements that also help to reduce the investment risks for the private sector, green bonds and green asset-backed securities (ABS) are examples of public loans and facilities granted to private sector investors in exchange for investing in climate adaptation and resilience projects⁷³.

Despite this, there was still a need to compile all aspects of climate change into a single document that would act as a fundamental guide for ensuring that the issue is considered in the overall planning for all sectors of the country. The National Council for Climate Change (NCCC) has requested to formulate the first comprehensive National Climate Change Strategy for Egypt through 2050⁷⁴.

Five main goals have been identified, including twenty-two objectives, each containing a number of directions that will contribute to achieving the objectives⁷⁵:

- Goal 1: Achieving Sustainable Economic Growth and Low-Emission Development in Various Sectors.
- Goal 2: Enhancing Adaptive Capacity and Resilience to Climate Change and Alleviating the Associated Negative Impacts.
- Goal 3: Enhancing Climate Change Action Governance.
- Goal 4: Enhancing Climate Financing Infrastructure.
- Goal 5: Enhancing Scientific Research, Technology Transfer, Knowledge Management and Awareness to Combat Climate Change.

It is important to note that all facets of society, not only government organizations, must participate in the implementation of Egypt's national policy for combating climate change. As a result, through boosting volunteerism and raising knowledge about climate

⁷² Prasad, A., Loukoianova, E., Feng, A. X., & Oman, W. (2022). Mobilizing Private Climate Financing in Emerging Market and Developing Economies. Staff Climate Notes, 2022(007).

⁷³ Ibid

⁷⁴ Egypt National Climate Change Strategy (NCCS) 2050. https://www.climate-laws.org/documents/egypt-national-climate-change-strategy-nccs-2050_8bfc

⁷⁵ Ibid

action, non-governmental organizations and civil society may successfully help the strategy's goals attained.

Egypt adopts a coherent approach in addressing climate change, biodiversity loss, and land and ecosystem degradation. Egypt is a party to the three Rio Conventions (UNFCCC, CBD, and UNCCD), and recognizes the interconnectivity between them particularly with regards to adaptation and resilience, in addition to Montreal Protocol and chemicals conventions, among other multilateral international agreements⁷⁶.

The following two tables shows the estimated costs and funds required for the mitigation and adaptation programs in Egypt, based on the National Climate change strategy 2050.

Summary of Mitigation program cost⁷⁷

Sector	Cost (million USD)	Time frame
Industry	130.3	2022/2035
Electricity	144153	2021/2035
Petroleum	1688.51	2023/2030
Transport	57477.45	2020/2030
Civil Aviation	25	2022/2030
Housing and Utilities	31	2022/2024
Waste	7627.4	2021/2035
Total	USD 211132.4 million = USD 211 billion	
	*(Out of a total of about \$211 billion for mitigation programs, there is about \$57.6 billion in funding, so the funding gap is about \$153.6 billion)	

Summary of adaptation cost⁷⁸

⁷⁶ Egypt's First Updated Nationally Determined Contributions, June 2022.

<https://unfccc.int/sites/default/files/NDC/2022-07/Egypt%20Updated%20NDC.pdf>

⁷⁷ Egypt National Climate Change Strategy (NCCS) 2050. https://www.climate-laws.org/documents/egypt-national-climate-change-strategy-nccs-2050_8bfc

⁷⁸ Ibid

Table 6.2: Summary of the Adaptation Programs Cost

Sector	Cost (million USD)	Time frame
Agriculture	52400	2022/2050
Transport	1273	2021/2023
Civil Aviation	9.1	2022/2024
Irrigation and Water Resources	59108.3	2022/2037
Biodiversity	199.1	2020/2030
Total	million dollars = 113 billion dollars approximately 112990.4	
*(Out of a total of about \$113 billion for adaptation programs, there is about \$18.3 billion in funding, so the funding gap is about \$94.7 billion)		

Climate Finance Accelerator **(CFA Egypt)**

The UK government funds the four-year technical support program known as the Climate Finance Accelerator (CFA). Eight nations throughout the world—Colombia, Egypt, Mexico, Nigeria, Pakistan, Peru, South Africa, and Turkey—run the program. Through the provision of technical, financial, gender equality, and social inclusion specialists to climate-friendly projects, the CFA seeks to increase the flow of green money or climate finance in Egypt. This will improve the likelihood that these projects will get funding and boost Egypt's efforts to build a steady pipeline of bankable, low-carbon initiatives.

The program aims to establish a permanent CFA process in Egypt, which will aid in the delivery of emissions reductions and the implementation of Egypt's enhanced Nationally Determined Contribution (NDC).

As of January 2023, the Climate Finance Accelerator (CFA) Egypt, funded by the UK Government, has chosen nine innovative low-carbon climate projects from across Egypt to make up its first cohort to receive technical and financial support to help them attract the investment they need.

These projects have the potential to benefit communities across Egypt through reducing pollution, providing employment opportunities, and by supporting food and farm security, technological advancement, access to energy, effective waste management, sustainable manufacturing and gender equality and social inclusion efforts.⁷⁹

⁷⁹ <https://enterprise.press/wp-content/uploads/2023/01/Climate-finance-accelerator.pdf>

Egyptian Banking Ecosystem contribution to Climate Finance

In September 2020, the Egyptian government launched its Green Financing Framework and released its first Green Bond for USD 750 million, making it the first sovereign Green Bond in the Middle East and North Africa. With the first private sector Green Bond scheduled for introduction in 2021, the Egyptian sovereign's participation into the Green Bond market has set a precedent for the market and effectively cleared the way for the private sector to begin issuing sustainable finance instruments⁸⁰. The largest privately held bank in Egypt teamed up with the International Finance Corporation to launch a USD 100 million Green Bond, demonstrating the private sector's readiness to spark investor interest in environmentally friendly projects. This marks another significant step forward in expanding Egypt's capital markets for green finance and assisting with the funding of infrastructure projects such as energy-efficient buildings, renewable energy sources, and green buildings.

Egypt's Green Bond issuance has resulted in a rise in total green investments from 15% in FY2019/20 to 30% in FY2020/21. It is anticipated that green investments will account for 50% of all investments in FY2024/253. This growth is bolstered by the introduction of Egypt's Environmental Sustainability Criteria Guidelines in 2021. This is supplemented by rules and guidelines set forth by Egypt's Financial Regulatory Authority (FRA), such as the Green Bond Guidelines released in 2018 and the Decrees 107 and 108 in 2021, which require companies operating in the non-banking sector and those listed on the Egyptian Stock Exchange to submit environmental, social, and governance disclosure reports about climate change's financial impacts and sustainability⁸¹.

The following directions contribute to promoting innovative financing mechanisms prioritizing adaptation actions, e.g., green bonds⁸²:

- Encouraging the development of green bonds to cover sectors that have not yet been operated
- Encouraging the development of innovative financing mechanisms such as “results-based financing” which reduce the risk of lenders
- Providing green financing opportunities to micro, small and medium enterprises

⁸⁰ Egypt Sovereign Sustainable Financing Framework.
https://www.afdb.org/sites/default/files/egypt_sovereign_sustainable_financing_framework.pdf

⁸¹ Egypt Updated NDC
<https://unfccc.int/sites/default/files/NDC/2022-07/Egypt%20Updated%20NDC.pdf.pdf>

⁸² Egypt National Climate Change Strategy (NCCS) 2050
<https://www.eeaa.gov.eg/Uploads/Topics/Files/20221206130720583.pdf>

- Encouraging interest in financing projects in the most vulnerable areas in a manner that encourages empowering women to access funding sources
- Seeking to provide technical and financial support, especially to small and micro 33 Egypt National Climate Change Strategy (NCCS) 2050 projects, in order to raise the efficiency of the affected groups through developing projects eligible for financing.
- Benefiting from some international experiences in innovative financing mechanisms for small projects, where easy terms are offered for the loan in exchange for a specific training program that reduces the risks of the financing entity
- Assessing of the effects of innovative financing for climate change on economic activity and areas of foreign direct investment

The Central Bank of Egypt issued the Guiding Principles on Sustainable Finance to set the general framework for sustainable finance across Egyptian banks to incorporate the Environmental, Social, and Governance (ESG) elements into the processes and decisions related to credit advancement.

The Central Bank of Egypt issued several initiatives aimed at achieving economic development and promoting sustainable finance by making specific amounts available for banks to use in granting credit facilities to their customers under the auspices of these initiatives at low interest rates. This type of financing plays a key role in developing the national economy and reducing unemployment rates by providing job opportunities for the youth. It considers the social components of sustainable finance, while focusing on sectors that consider the environmental component, such as the new and renewable energy sector. The following are a number of related initiatives:

1. MSMEs Initiatives including:
 - Including local bakeries in the small size initiative with decreasing rate 5% to finance conversion to natural gas.
 - Initiative for medium-sized industrial and agricultural companies, in addition to new and renewable energy projects with decreasing rate 7%.
2. Mortgage Finance Initiative for low and middle income.
3. Initiative of substituting cars to work with dual fuel.
4. Industrial private sector, agricultural sector and construction sector Initiative.
5. Tourism Sector Initiative.
6. Initiative regarding non-performing loan for companies and individuals.
7. Initiative of funding the transition to modern irrigation methods.

Within the framework of strengthening the role of banks in facing climate change, the CBE directed all Egyptian banks to measure their carbon footprints for their headquarters. This is in line with the banking sector's role in driving sustainable development and in studying the available solutions to reduce the negative impacts of climate change. This step also supports the development of sustainability-related disclosure in banks⁸³.

Additionally, the CBE laid **the foundation for identifying and managing climate change risks, in addition to encouraging financing projects that contribute to addressing the issue of climate change.**

1. Working on identifying and classify the various risks related to climate change and work on mitigating them.
2. Encouraging financing projects aimed at reducing climate change and global warming.
3. Assessing risks of climate change in projects to be financed and work on managing those risks.
4. Increase awareness and develop the capabilities of the Bank's staff in the field of managing those risks resulting from climate change.

Egypt's government updated its Nationally Determined Contributions (NDCs), the nation's self-defined national climate pledges, in June 2023 with the ambitious goal of reducing greenhouse gas emissions (GHG) by 37 percent by 2030 in order to support the transition to a greener, climate-resilient economy. By assisting the bank in increasing its strategic exposure to initiatives that will enhance the nation's climate outlook, the IFC's climate advisory project with Banque du Caire helps the country achieve its NDC goals. As part of the project, IFC will evaluate Banque du Caire's current climate finance assets, perform an internal assessment, and screen the bank's portfolio for climate risks. The ultimate objective is to help the bank turn its strategy for climate finance into a workable plan⁸⁴.

The National bank of Egypt ("NBE") has received a financing from Agence Française de Développement («AFD») and intends to use part of the funds thereof for payments under the following project: Technical Assistance service to support the National Bank of Egypt's effort in the implementation of its climate finance strategy and in the promotion of a low carbon transition in Egypt as part of the Transforming Financial Systems for Climate (TFSC) program⁸⁵.

⁸³ <https://www.cbe.org.eg/en/sustainability/sustainable-finance>

⁸⁴ <https://pressroom.ifc.org/all/pages/PressDetail.aspx?ID=27764>

⁸⁵ <https://www.nbe.com.eg/AssetsManager/1b647fed-c7ad-4bc8-924a-9532c10d771b.pdf>

Conclusions

The new climate finance goal was discussed after years of failure to meet climate finance pledges in **Bonn Climate Change Conference 2023**, but without supporting reforms of the global financial system we risk repeating past mistakes.. This goal will replace the climate finance commitment set in 2009, which aimed to mobilize \$100 billion per year for developing countries by 2020. The \$100 billion commitment, which has not been met, will expire in 2025⁸⁶.

The \$100 billion target is generally acknowledged to be a small portion of the funding required to assist developing nations in achieving their climate targets in conformity with the Paris Agreement. According to a recent analysis of finance requirements by the United Nations Framework Convention on Climate Change, developing nations will need at least \$6 trillion by 2030 to make up for less than half of their current Nationally Determined Contributions⁸⁷.

New goal must respond to demonstrated needs

The new goal must be properly quantified, respond to countries' demonstrable requirements, and be tracked based on an agreed-upon approach in order to avoid the double-counting and considerable overestimations of the past. It cannot be based on arbitrary targets.

Developing countries face the double challenge of simultaneously investing in development and in climate mitigation and adaptation, while addressing the costs of loss and damage.

But advancing green industrialization and diversification, raising public investment and social protection, and preparing and responding to multiplying climate disasters, all depend on increasing access to finance.

Financing options that are fair, sufficient and politically feasible are achievable. UNCTAD has recommended reforms to the global financial architecture that would help deliver climate and development finance at the appropriate scale.

⁸⁶ A climate finance goal that works for developing countries, 14 June 2023

By Richard Kozul-Wright, Director of the Globalization and Development Strategies Division, UNCTAD.

<https://unctad.org/news/climate-finance-goal-works-developing-countries>

⁸⁷ <https://unfccc.int/sb58#attend>

Four priorities for climate finance⁸⁸

UNCTAD outlined four priorities at an event entitled “Options for Scaling Climate Finance” co-hosted with the German Development Agency (GIZ) and The Energy and Resources Institute at the Bonn Conference on 6 June, 2023.

Debt distress is the first and most important priority: The future resilience and growth prospects of 60% of low-income nations are being harmed by their yearly debt servicing costs, which are predicted to be five times higher than those for climate adaptation. These nations urgently require debt relief. Establishing a global debt workout procedure that can assist nations in breaking the vicious loop of escalating debt and climate issues should be a longer-term objective.

Additionally, this suggests expanding grant-based funding sources, but in reality, both official development assistance and climate finance flows have been declining. Multilateral sources of financing need to be expanded in addition to these tendencies needing to be reversed.

A second priority is to think of creative ways to use the Special Drawing Rights (SDRs) of the IMF to boost development and climate impacts while maintaining their advantages as a conditionality-free, debt-free source of liquidity.

This can entail redirecting SDRs to multilateral development banks (MDBs), dealing with allocation concerns to ensure that SDRs get to where they are most needed, or contemplating more ambitious strategies like new SDR asset classes with particular goals, like climate resilience.

Thirdly, the global network of hundreds of government-backed development banks at all levels, including multilateral, regional, and national, serves as a source of additional funding and is the most direct approach to raise the amount of development finance available.

These banks have a long-term perspective, which helps them combat the pro-cyclical inclinations of private finance. They also have the local knowledge and skills needed to create solutions that cut beyond national boundaries. In addition to helping communities manage the social and financial costs of a green transition, climate funding from MDBs can also focus on the technical aspects of transitions⁸⁹.

⁸⁸ <https://unctad.org/meeting/bonn-climate-change-conference-sb58-side-event-options-scaling-climate-finance-exploring>

⁸⁹ https://unctad.org/system/files/non-official-document/UNCTAD_Just_Transition_BACKGROUND_NOTE_COP27.pdf

The fourth consideration is how to mobilize private finance towards climate goals. To encourage productive investment and the alignment of private finance flows with the Paris Agreement, discipline in the form of regulatory measures is also necessary in addition to the use of incentives.

Even if new climate-related products like green bonds, climate debt swaps, environmental, social, and governance financing may indicate an acknowledgment of climate change, they are still far smaller in scope than necessary.

The financing possibilities described here provide a place to start in order to make sure that a new objective for climate finance can meet the current challenge and aid all developing nations in achieving their climate goals.

Recommendations for Climate Finance in the MENA Region (Middle East and North Africa):

1. **Enhance Regional Cooperation:** Foster collaboration and cooperation among MENA countries to address climate challenges collectively. Establish regional funds and initiatives to support climate projects and facilitate knowledge sharing and technology transfer within the region.
2. **Diversify Energy Sources:** Invest in renewable energy sources to reduce dependence on fossil fuels. Promote the development of solar, wind, and geothermal energy projects through targeted financial incentives, regulatory frameworks, and capacity-building programs.
3. **Strengthen Climate Resilience:** Allocate funds for projects that enhance climate resilience in the region. This includes investing in climate-smart agriculture, water management systems, and infrastructure that can withstand the impacts of climate change, such as sea-level rise and extreme weather events.
4. **Promote Energy Efficiency:** Encourage energy efficiency measures across sectors by providing financial incentives and support for energy-efficient technologies, building retrofits, and sustainable transportation systems. This can help reduce greenhouse gas emissions and improve energy security.
5. **Build Financial Capacity:** Strengthen financial institutions' capacity to assess and finance climate projects. Provide training and technical assistance to banks, development finance institutions, and other financial intermediaries to enhance their understanding of climate finance and develop appropriate products and services.

The way forward will be at the COP28 UAE from 30 November to 12 December 12, 2023. It will be a milestone moment when the world will take stock of its progress on the Paris Agreement. The first Global Stocktake (GST) - the most extensive assessment of global action on climate change to date -, will provide a comprehensive assessment of progress since adopting the Paris Agreement. This will help align efforts on climate action, including measures that need to be put in place to bridge the gaps in progress. The COP28 UAE Presidency will work to ensure that the world responds to the GST with a clear plan of action⁹⁰.

⁹⁰ <https://www.cop28.com/en/cop28-presidency>

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**Headquarters – Nasr City**

22 A, Dr. Anwar El Mofty St., Tiba 2000

P.O.Box 8164 Nasr City, Cairo, Egypt

Tel.: (+2) 02 24054472

Fax: (+2) 02 24054471

Working hours: 9:00 am - 5:00 pm

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