



CATALYZING COASTAL ADAPTATION FINANCE IN MOROCCO

Rapid Capacity Assessment

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Enhancing regional
climate change adaptation
in the Mediterranean Marine
and Coastal Areas

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Table of contents

- Director of publication 2
- Authors 2
- Report Coordinators 2
- Disclaimer 2
- Legal notice 2
- Copyright 2
- Table of contents 3
- Table of illustrations 4
 - Figures 4
 - Tables 4
- Introduction 5
 - The GEF MedProgramme and the Special Climate Change Fund (SCCF) Project 5
 - The need for coastal adaptation supported by the financial and private sectors 6
- 1 Methodology 8
- 2 Climate Frameworks and Collaborations 9
 - 2.1 National Climate Change Policy 9
 - 2.2 Morocco’s National Adaptation Plan (NAP) 9
 - 2.3 International Climate Agreements and Regional Collaborations 10
- 3 Current Landscape of the Climate Finance and the Private Sector in Morocco 12
 - 3.1 Productive Sectors 13
 - 3.2 Case Study: Innovative Projects for Climate Change Measures in Morocco’s Tourism Sector 17
 - 3.3 Currently Available Calls for Financing Sustainability in the Productive Sector 17
 - 3.4 National Investment Fund for Coastal Adaptation 18
- 4 Zoom In on the SCCF Project Pilot Site: The Tangier-Tétouan-Al Hoceima Region 19
 - 4.1 Finance Sector Challenges and Gaps 19
 - 4.2 Current Financial Initiatives 19
 - 4.3 Role Of Public and Private Sector Partnerships 20
 - 4.4 Recommendations for Enhancing Financial Readiness 20
- 5 Assessment of the Moroccan Financial Sector 21
 - 5.1 Key Findings 22
 - 5.2 Recommendations 22
- 6 Next Steps: Strengthening the Macro-Framework and Capacity Building 25
 - 6.1 Macro Frameworks 25
 - 6.2 Capacity Building 26
- Conclusion 28
- Annex 29
- References 30

Table of illustrations

FIGURES

Figure 1. Morocco Climate Finance Strategy key orientations 12

Figure 2. Overview of Adaptation Finance for Productive Sectors in Morocco (2016-2019) 14

TABLES

Table 1. Overview of the main programmes for climate adaptation in Morocco 15

Table 2. Current available calls for financing sustainability in the productive sector 18

Table 3. Morocco's financial sector analysis 24

Table 4. Main existing training programs aimed at enhancing the resilience of its coastal areas to climate change 26

Table 5. Morocco's financial institutions 29

Introduction

This report offers an assessment of Morocco's capabilities in climate change adaptation, with specific focus on the financial and private sectors, in an effort to lay the ground for more in-depth activities to protect Morocco's coastlines. It examines the current landscape in terms of coastal adaptation finance, identifying best practices, and pinpointing crucial training needs to enhance climate resilience in the country.

While Morocco has traditionally focused on climate mitigation, including emissions reductions and renewable energy initiatives, there is a growing recognition of the need for coastal adaptation. Coastal adaptation refers to the strategies and actions taken to prepare for, and respond to, the impacts of climate change on coastal areas, such as rising sea levels and extreme weather events. Indeed, it is essential to address the unique and complex challenges faced by coastal zones, including their significant socio-economic impacts. In the Mediterranean region, these challenges are further compounded by the diverse uses and pressures on coastal areas, necessitating a multifaceted approach to adaptation.

THE GEF MEDPROGRAMME AND THE SPECIAL CLIMATE CHANGE FUND (SCCF) PROJECT

This report was produced in the framework of the GEF MedProgramme SCCF Project¹ "Enhancing Regional Climate Change Adaptation in the Mediterranean Marine and Coastal Areas", funded by the Global Environment Facility (GEF), implemented by [UNEP/MAP](#), and executed by Plan Bleu/RAC, the Priority Actions Programme Regional Activity Centre (PAP/RAC), and the Global Water Partnership Mediterranean (GWP-Med) over the 2021-2024 period, in an effort to enhance climate resilience and promote sustainable development in vulnerable Mediterranean coastal areas.

Plan Bleu is one of the Regional Activity Centres of the Mediterranean Action Plan (MAP) of the United Nations Environment Programme (UNEP), working under the Barcelona Convention (UNEP/MAP, 1995). One of Plan Bleu's main activities is the revision and implementation of the Mediterranean Strategy for Sustainable Development (MSSD), which incorporates various thematic links with the activities of the GEF MedProgramme (UNEP/MAP, 2016).

The MedProgramme, funded by the Global Environment Facility (GEF), is a \$43.4 million assortment of projects that seeks to reduce transboundary environmental stresses, strengthen climate resilience, and improve the livelihoods of coastal populations through integrated and sustainable actions.

In Morocco, the SCCF project is implemented in collaboration with the Ministry of Energy Transition and Sustainable Development of the Kingdom of Morocco and its Regional Environmental Directorate of the Tanger-Tetouan-Al Hoceima Region. These activities notably comprise:

- the elaboration of a regional Coastal Plan Management (*Schéma régional du littoral*) for the Tanger-Tetouan-Al Hoceima region (TTA) under the MedProgramme's Child Project 2.1, led by PAP/RAC, and supported by Plan Bleu's participatory Climagine foresight methodology;
- a gender-sensitive climate risk assessment of TTA, and an application of the Coastal Risk Index-Local Scale² to the area;
- participatory workshops to identify coastal adaptation solutions for TTA and prioritize solutions to submit them to economic analysis methods: Cost-Benefit Analysis (CBA) and Multi-Criteria Assessments (MCA);
- capacity-building workshops on Nature-based Solutions for coastal adaptation targeting coastal managers, decision-makers, researchers, the private sector and civil society;
- capacity-building activities targeting the financial and private (service and production) sectors in TTA, that aim to build capacity on integrating climate risks into investment decisions and supporting the elaboration of financial tools and mechanisms to support coastal adaptation measures in priority economic sectors on this pilot site.

Morocco has shown a strong commitment to mobilizing resources for climate action through various financial mechanisms, including the Moroccan Green Investment Fund (MGIF) and green bonds. These efforts support projects focused on renewable energy, energy efficiency, and other sustainable practices. However, the financial and private sectors often struggle to support coastal adaptation due to a lack of institutional awareness, funding mechanisms, and

¹ <https://www.unep.org/unepmap/what-we-do/projects/MedProgramme>

² Satta, A., Venturini, S., Puddu, M., Firth, J., Lafitte, A., 2015. Strengthening the knowledge base on regional climate variability and change: application of a multi-scale coastal risk index at regional and local scale in the Mediterranean. Plan Bleu Report

bankable projects. According to the UNEP [Adaptation Gap Report 2023](#), most climate funding currently focuses on mitigation, leaving coastal adaptation underfunded despite its critical importance (UNEP, 2023).

Indeed, challenges remain, such as limited private sector engagement, regulatory gaps, and the need for improved climate data management. Key findings of this report highlight the importance of capacity-building initiatives, supported by international organizations such as UNEP/MAP, the World Bank and UNDP, among others. These initiatives are crucial for equipping stakeholders with the skills and knowledge needed to manage climate risks and implement sustainable practices. Public-private partnerships also play a significant role in fostering collaboration and knowledge sharing.

This report outlines the methodology and findings related to these efforts, providing insights into the pathways for securing coastal adaptation finance and strengthening climate resilience in Morocco. Through targeted ecosystem-based interventions, capacity building, and financial sector engagement, these initiatives aim to create a sustainable and resilient future for Morocco's coastal regions. The report provides several recommendations to address these challenges and leverage opportunities:

1. Strengthen the integration of climate risk assessments in financial sector policies and practices;
2. Enhance coordination among government agencies, international organizations, and private sector stakeholders;
3. Focus on capacity-building initiatives to promote climate resilience and green economic growth;
4. Invest in systems and technologies to improve climate data accuracy and availability.

THE NEED FOR COASTAL ADAPTATION SUPPORTED BY THE FINANCIAL AND PRIVATE SECTORS

Climate change poses significant threats to coastal regions worldwide. The Mediterranean Sea region is particularly vulnerable to climate change impacts due to its unique climatic, geographic, and socio-economic characteristics. This is further compounded by population growth, pollution, habitat degradation, overtourism and the overexploitation of resources. Morocco's extensive Mediterranean coastline, especially in the Tangier-Tétouan-Al Hoceima region, is highly susceptible to climate change (Satta et al., 2023). This area, home to around 3.5 million people, grapples with issues such as sea-level rise, flooding, increased temperatures, and worsening water scarcity due to reduced rainfall. Rapid urbanization, pollution, and deforestation further strain the region's ability to adapt and remain resilient.

Coastal adaptation measures to respond to these challenges can involve spatial planning based on Integrated Coastal Zone Management (ICZM) and the introduction of context-specific, locally adapted Nature-based Solutions (NbS) for [Ecosystem-based Adaptation](#) (EbA). This ensures that adaptation measures are effective and sustainable, addressing both environmental and socio-economic needs. However, their large-scale implementation requires the involvement of both the public and private sectors, given the scale of the challenges.

Morocco, highly susceptible to climate-related challenges such as droughts and floods, requires a dynamic and climate-sensitive financial sector to achieve relevant climate change adaptation measures. Effective collaboration between banks, insurers, and other financial entities is essential for enhancing the country's resilience and ensuring sustainable development in the face of climate change. Indeed, the TTA region can be considered a climate hotspot in the Mediterranean, as explored in Plan Bleu's "[Gender-sensitive climate risk assessment of the Tangier-Tetouan-Al Hoceima region](#)" which provides detailed descriptions of the main climate risks affecting the area (Satta et al., 2023).

Climate change significantly impacts the financial system by transforming both physical and transitional climate risks into financial risks. Managing these risks strategically is crucial, due to their origins in climate-related factors. Banks, as key contributors to financing sustainability and adaptation initiatives, play a substantial role in fostering responsible banking practices and adhering to relevant regulations, thereby contributing to societal climate change objectives.

To effectively fulfill this role, banks must comprehend the present and future ramifications of physical and transitional climate risk factors on their clientele, counterparties, assets and affiliated organizations. They need to evaluate the financial risks stemming from climate change, actively monitor their exposure to such risks, and implement robust risk management protocols. Identifying those sectors that are most vulnerable to climate risks is essential for analyzing portfolio resilience. This requires transparent disclosure of high-quality data regarding current exposure levels and ongoing efforts to mitigate greenhouse gas emissions.

Additionally, the insurance and reinsurance sectors play a crucial role in addressing climate risks by integrating these risks into their activities and future-proofing investments against potential impacts. Insurers must assess the exposure of their portfolios to climate-sensitive sectors, develop products that mitigate climate risks, and provide the necessary coverage for climate-related losses. This approach not only protects their clients but also ensures the stability and sustainability of their own operations.

Assessing the exposure of sensitive sectors is thus vital for both short-term planning and long-term sustainability. Developing resilient strategies to address climate-related risks is a critical imperative. By adopting proactive measures, banks and insurers can navigate the complex landscape of climate risks and contribute meaningfully to building a sustainable financial ecosystem resilient to the challenges posed by climate change.

Securing sustainable finance for coastal adaptation is crucial for addressing the vulnerabilities and enhancing the resilience of Morocco's coastal regions. The objectives in this regard are multifaceted:

1. **Enhancing Financial Capacities:** Developing frameworks and facilitating international collaborations to bolster the financial sector's capacity to support climate resilience initiatives.
2. **National Adaptation Plan Integration:** Integrating Morocco's National Adaptation Plan (NAP) and relevant programs into financial planning and investment decisions.
3. **Capacity Assessments:** Conducting rapid capacity assessments of the finance and private sectors in Morocco to identify needs, gaps, and opportunities for improvement.

The success of these objectives hinges on effective collaboration between governmental bodies, international organizations, and the private sector. Catalyzing coastal adaptation finance will enable a robust macro-framework that supports sustainable development, reduces climate vulnerability, and enhances the overall resilience of Morocco's coastal areas.

1 Methodology

Desktop research was conducted to collect information from a diverse array of sources, including government reports, policy documents, academic publications, project evaluations, and institutional websites. The primary sources of information included:

- **Government Reports and Policy Documents:** Data was gathered from official Moroccan government publications outlining national strategies and policies on sustainable development and climate action, such as Morocco's National Strategy for Sustainable Development 2030³ (Green Policy Platform, 2017; Bove and Ounissi, 2023; Royaume du Maroc, 2014, 2016a, 2016b, 2019b, 2019c, 2020, 2021).
- **Academic Publications:** Research papers and studies published by Moroccan and international scholars provided insights into the country's climate challenges, mitigation strategies, and adaptation measures (Bouras et al., 2019; Brouziyne et al., 2018; Ongoma et al. 2024).
- **Project Evaluations:** Evaluations of climate-related projects implemented in Morocco offered practical examples of successes, challenges, and lessons learned (ICAT, 2024; Satta et al., 2022, etc.).
- **Institutional Websites:** Websites of key organizations, such as the Moroccan Ministry of Energy, Mines, and Environment⁴, the Ministry of Agriculture, Fisheries, Rural Development, Water and Forest⁵, the World Bank⁶, and GIZ⁷, provided up-to-date information on ongoing initiatives and collaborative efforts.

This comprehensive desk research provided a foundational understanding of Morocco's climate action landscape, enabling the identification of key themes, challenges, and opportunities.

Semi-structured interviews were conducted with a select group of stakeholders, including government officials, representatives from international organizations, NGOs, and experts in climate finance and sustainable development. The primary objectives of these interviews were to:

- **Gather Qualitative Insights:** Stakeholders shared their perspectives and experiences related to Morocco's climate action efforts, capacity-building initiatives, and financing mechanisms.
- **Understand Challenges:** Interviewees provided insights into the practical challenges faced in implementing climate strategies and achieving sustainable development goals.
- **Identify Best Practices:** Conversations with experts highlighted successful initiatives and strategies that could be replicated or scaled up.

These interviews enriched the analysis and interpretation of desk research findings, offering firsthand information and contextual insights. The methodology facilitated the synthesis of diverse perspectives, identification of key trends and challenges, and formulation of informed recommendations for advancing sustainable development in Morocco. This integrated approach ensures a holistic view of the country's efforts to combat climate change and promotes the development of effective, evidence-based strategies for a resilient and sustainable future.

³ <https://www.greenpolicyplatform.org/national-documents/morocco-national-sustainable-development-strategy>

⁴ <https://www.mem.gov.ma/en/Pages/index.aspx>

⁵ <https://www.agriculture.gov.ma/>

⁶ <https://www.worldbank.org/en/country/morocco>

⁷ <https://www.giz.de/en/worldwide/142547.html>

2 Climate Frameworks and Collaborations

Morocco's commitment to addressing climate change and enhancing coastal resilience is reflected through various frameworks and international collaborations.

2.1 NATIONAL CLIMATE CHANGE POLICY

Morocco's National Climate Change Policy sets the foundation for its climate action and resilience strategies (Royaume du Maroc, 2021). This policy is embedded in the broader context of the country's sustainable development goals and reflects its commitment to international climate agreements, such as the Paris Agreement. The policy focuses on both mitigation and adaptation, recognizing the need to reduce greenhouse gas emissions while simultaneously enhancing the resilience of vulnerable sectors to the impacts of climate change.

One of the central elements of Morocco's National Climate Change Policy is its ambitious renewable energy program. Morocco aims to generate 52% of its electricity from renewable sources by 2030, with significant investments in solar, wind, and hydropower projects (Royaume du Maroc, 2018). The Noor Ouarzazate Solar Complex, one of the largest solar power plants in the world, exemplifies this commitment. Additionally, Morocco is expanding its wind energy capacity with projects like the Tarfaya Wind Farm, which significantly contributes to the country's renewable energy targets. These initiatives not only help in reducing greenhouse gas emissions but also create job opportunities and stimulate economic growth.

Adaptation measures in the National Climate Change Policy are designed to address the specific vulnerabilities of Morocco's diverse regions. The policy includes comprehensive plans for water resource management, agriculture, and coastal protection (Royaume du Maroc, 2021). For instance, Morocco has implemented advanced irrigation techniques and water conservation practices to combat water scarcity, which is exacerbated by climate change. The policy also promotes the restoration of degraded ecosystems and the implementation of nature-based solutions to enhance coastal resilience. These measures are supported by robust monitoring and evaluation frameworks to ensure their effectiveness and to facilitate continuous improvement.

The policy emphasizes the importance of building institutional capacity and fostering collaboration among various stakeholders, including government agencies, private sector entities, and civil society organizations. This collaborative approach ensures that adaptation and mitigation efforts are well-coordinated and that resources are efficiently utilized. Additionally, Morocco's climate policy includes educational and awareness-raising initiatives aimed at fostering a culture of environmental stewardship among its citizens. These efforts are crucial for ensuring long-term sustainability and for mobilizing public support for climate action.

Overall, Morocco's National Climate Change Policy represents a comprehensive and proactive approach to addressing the challenges posed by climate change. By integrating mitigation and adaptation strategies, investing in renewable energy, and promoting sustainable practices across sectors, Morocco is positioning itself as a leader in climate resilience and sustainable development in the region.

2.2 MOROCCO'S NATIONAL ADAPTATION PLAN (NAP)

Morocco's National Adaptation Plan (NAP) serves as a comprehensive framework designed to enhance the country's resilience to climate change (PNSA 2030, 2022). The NAP outlines strategic actions and priorities across various sectors, focusing on reducing vulnerabilities and strengthening adaptive capacities. One of the central components of the NAP is the development of sector-specific adaptation plans, which include detailed strategies for key areas such as water resources, agriculture, coastal zones, and infrastructure. These plans are tailored to address the unique challenges and needs of each sector, ensuring a targeted and effective approach to adaptation.

The NAP emphasizes the importance of capacity building at both the institutional and community levels. This involves enhancing the skills and knowledge of government agencies, local authorities, and other stakeholders to implement and manage adaptation initiatives effectively. Training programs, workshops, and technical assistance are provided to build competencies in climate risk assessment, project management, and the integration of adaptation measures into development planning. By strengthening institutional capacities, the NAP ensures that Morocco is better equipped to respond to the impacts of climate change and to implement sustainable adaptation solutions.

Funding mechanisms are a critical aspect of Morocco's NAP, aimed at mobilizing financial resources to support adaptation projects and initiatives (Royaume du Maroc, 2016b). The NAP identifies various sources of funding,

including national budgets, international climate finance, and private sector investments. Morocco has actively sought to leverage funding from international donors and climate funds, such as the Green Climate Fund (GCF) and the Global Environment Facility (GEF), to finance its adaptation efforts. Additionally, the NAP encourages the involvement of the private sector in financing adaptation through public-private partnerships and innovative financing instruments. This multi-faceted approach to funding ensures that sufficient resources are available to support the implementation of adaptation measures.

Monitoring and evaluation (M&E) frameworks are integral to the NAP, providing mechanisms to track progress, assess the effectiveness of adaptation actions, and inform future planning. These frameworks involve the collection of data on climate impacts and adaptation outcomes, as well as the use of indicators to measure progress against defined targets. Regular reporting and review processes are established to ensure transparency and accountability, enabling continuous improvement of adaptation strategies. By incorporating robust M&E systems, the NAP ensures that adaptation efforts are data-driven, responsive to changing conditions, and aligned with national and international climate goals.

Overall, Morocco's NAP represents a strategic and systematic approach to enhancing climate resilience. Through sector-specific adaptation plans, capacity building, innovative funding mechanisms, and robust monitoring and evaluation, it provides a comprehensive framework for addressing the multifaceted challenges posed by climate change.

2.3 INTERNATIONAL CLIMATE AGREEMENTS AND REGIONAL COLLABORATIONS

Morocco is a signatory to several international climate agreements, underscoring its commitment to global climate action and sustainable development. One of the most significant of these is the Paris Agreement, under which Morocco has pledged ambitious Nationally Determined Contributions (NDCs). These contributions include a target to reduce greenhouse gas emissions by 42% by 2030, contingent on receiving adequate international support and financing. Morocco's commitment to the Paris Agreement is reflected in its comprehensive climate policies and its proactive engagement in international climate negotiations.

In addition to the Paris Agreement, Morocco is actively involved in the Adaptation of African Agriculture (AAA) Initiative, which it launched during the 22nd Conference of the Parties (COP22) held in Marrakech in 2016. The AAA Initiative aims to reduce the vulnerability of African agriculture to climate change through innovative funding mechanisms, capacity-building programs, and the promotion of sustainable agricultural practices. This initiative is crucial for enhancing food security and livelihoods across Africa, a region particularly susceptible to the impacts of climate change.

Morocco is also a member of the Climate Vulnerable Forum (CVF), a global partnership of countries that are disproportionately affected by the consequences of global warming. Through its participation in the CVF, Morocco advocates for stronger global climate action and support for vulnerable nations. The forum provides a platform for sharing best practices and collaborating on strategies to mitigate climate risks. Morocco's involvement in the CVF reflects its commitment to international solidarity and its dedication to addressing the climate crisis through collective action.

Additionally, Morocco is an active member of the African Union (AU) and participates in the AU's climate-related initiatives. The AU's "African Adaptation Initiative" seeks to enhance the continent's adaptive capacity by promoting regional cooperation, securing international funding, and implementing adaptation projects tailored to the unique needs of African countries. Morocco's involvement in the AU's initiatives includes leading efforts to develop and implement adaptation strategies that address desertification, water scarcity, and agricultural productivity. These collaborations enable Morocco to align its climate actions with continental goals, ensuring a cohesive and comprehensive approach to climate resilience across Africa.

Furthermore, Morocco engages in regional collaborations, such as the Mediterranean Strategy for Sustainable Development (MSSD)⁸, the Barcelona Convention, and the Union for the Mediterranean (UfM)⁹. The MSSD and the Barcelona Convention, coordinated by UNEP/MAP, promote sustainable development, focusing on protecting marine and coastal environments, enhancing climate resilience, and promoting green growth. Similarly, through its work with the UfM, including initiatives focused on climate change adaptation, renewable energy, water management, and sustainable agriculture Morocco participates in projects that aim to enhance climate resilience and promote

⁸ <https://www.unep.org/unepmap/what-we-do/mediterranean-strategy-sustainable-development-mssd>

⁹ <https://ufmsecretariat.org/fr/>

sustainable development. These regional initiatives complement Morocco's national efforts and facilitate the exchange of knowledge and resources among Mediterranean countries.

These international climate agreements and initiatives are integral to Morocco's broader strategy for addressing climate change. By aligning its national policies with global and regional frameworks, Morocco ensures that its climate actions are effective and that they contribute to the global effort to combat climate change. The country's active participation in these agreements demonstrates its leadership in climate diplomacy and its commitment to building a sustainable and resilient future for all.

Furthermore, Morocco's regional collaborations extend to bilateral partnerships with neighboring countries. For instance, Morocco has established cooperative agreements with countries such as Spain and France to address shared environmental challenges and promote sustainable development. These partnerships often involve joint research projects, capacity-building programs, and the exchange of technology and expertise. By engaging in these bilateral collaborations, Morocco enhances its ability to address transboundary environmental issues, such as marine pollution and the management of shared water resources, thereby contributing to regional stability and sustainability. An example of Morocco's regional collaborations extending to bilateral partnerships with neighboring countries such as Spain, is the cooperation agreements signed at the 12th High-Level Meeting between Morocco and Spain¹⁰. These agreements include the signature of a Memorandum of Understanding (MoU) between Morocco's Ministry of Equipment and Water and Spain's Ministry of Ecological Transition and Demographic Challenge. This MoU focuses on the management, development, and protection of water resources, aiming to address the effects of climate change on water resources and plan adaptation strategies.

Through these regional collaborations, Morocco not only strengthens its national climate resilience but also contributes to the broader efforts in the Mediterranean and Africa to tackle climate change. By leveraging regional partnerships, Morocco is able to access additional resources, share knowledge, and implement innovative solutions that are critical for addressing the complex and interconnected challenges posed by climate change.

¹⁰ <https://diplomatie.ma/en/12th-hlm-morocco-spain-signing-several-cooperation-agreements>

3 Current Landscape of the Climate Finance and the Private Sector in Morocco

The current climate financing strategy revolves around five key orientations, as indicated in Figure 1.

Figure 1. Morocco Climate Finance Strategy key orientations



Source: ICAT Scoping Report Morocco, 2024)

Access to finance is a critical component of Morocco’s NAP, aimed at mobilizing the necessary resources to implement adaptation projects and initiatives effectively. Morocco has pursued multiple avenues to secure funding from international, national, and private sources (Royaume du Maroc, 2016b and 2019a; ICAT, 2024).

Morocco ranks in the upper quadrant among developing countries in terms of readiness for climate finance, with an ND-GAIN readiness score of 0.428¹¹, making it the 89th most ready country (University of Notre Dame, 2022).

The country has successfully leveraged international climate finance from major global funds such as the Green Climate Fund (GCF) and the Global Environment Facility (GEF). These funds have supported a variety of adaptation projects focusing on water resource management, agriculture, and coastal protection. For instance, the GCF has financed projects that enhance water security in drought-prone areas and support sustainable agricultural practices to combat climate variability. The IMF’s recent approval of a \$1.3 billion arrangement under the Resilience and Sustainability Facility (RSF) underscores the international community’s support for Morocco’s climate resilience efforts.

Domestically, Morocco has established several funding mechanisms to support climate adaptation. The Moroccan Agency for Sustainable Energy (MASEN) plays a pivotal role in funding renewable energy projects, which indirectly support adaptation by reducing the country’s dependence on fossil fuels and mitigating climate risks. Additionally, the government allocates budgetary resources for climate adaptation initiatives, ensuring a steady flow of funding to critical sectors. The development and application of a methodology on climate finance by the ICAT initiative helps track and manage these funds more effectively, enhancing transparency and accountability (Royaume du Maroc, 2019a; ICAT, 2024).

To enhance financial flows for adaptation, Morocco promotes public-private partnerships (PPPs). These partnerships are designed to attract private investment in climate-resilient infrastructure and technologies. For example, PPPs have been instrumental in developing irrigation infrastructure that enhances water use efficiency in agriculture, a sector highly vulnerable to climate change. The GEF report highlights successful PPP projects such as the Saïss Water Conservation Project, which has fully disbursed GCF grants and demonstrated significant positive impacts on local water management.

¹¹ <https://gain.nd.edu/our-work/country-index/rankings/>

Morocco is also exploring innovative financial instruments such as green bonds and climate insurance schemes. Green bonds issued by Moroccan financial institutions fund projects that contribute to environmental sustainability and climate resilience. Climate insurance schemes are being developed to protect farmers and other vulnerable groups from climate-related losses, providing a financial safety net that supports continued economic activity despite adverse climatic events.

The insurance sector in Morocco is increasingly recognizing the need to address climate risks. Companies like Wafa Assurance and AXA Assurance Maroc are at the forefront of integrating climate risk assessments into their insurance products. These insurers offer coverage for climate-related damages, promoting resilience among policyholders by providing financial protection against extreme weather events and other climate impacts. The development of climate insurance schemes is particularly important for sectors such as agriculture, where farmers face significant risks from droughts, floods, and other climate-related hazards. These schemes provide a critical safety net, ensuring that farmers can recover from losses and maintain their livelihoods despite adverse climatic conditions.

The ICAT initiative supports Morocco in developing a climate finance tracking framework, allowing the country to meet national and international climate finance-related reporting requirements (ICAT, 2024). Key findings from the ICAT Scoping Report include:

- **Development of a Transparency Framework:** Morocco's online transparency platform enables effective data management in a multi-user environment across national, regional, and local levels, enhancing the monitoring of NDC implementation.
- **Regional Climate Committees and information systems:** The Regional Climate Committee in the Souss-Massa region¹² and its Regional Information System on Environment and Sustainable Development (SIREDD) play a crucial role in tracking GHG emissions and assessing the effectiveness of climate action projects at the local level. All of Morocco's regions are operating such regional information systems, including the [SIREDD TTA](#).
- **Capacity Building and Stakeholder Engagement:** The ICAT project emphasizes the importance of capacity-building and enhanced understanding of climate finance metrics and governance among stakeholders. This includes training programs for policymakers, finance entities, research institutions, and private sector associations to improve their ability to track and report on climate finance flows.
- **Integration of Climate Finance Data:** The project helps integrate climate finance data into Morocco's transparency framework, identifying key actors and ensuring that financial flows are effectively managed and reported. This integration supports Morocco's efforts to enhance the transparency and accountability of its climate finance mechanisms.

Through these diverse funding strategies, Morocco aims to ensure that sufficient financial resources will be available to support its adaptation efforts. The proactive approach in securing and managing these funds underscores Morocco's commitment to building resilience and achieving sustainable development in the face of climate change. The integration of climate finance into broader national and regional strategies, supported by international and domestic funding mechanisms, innovative financial instruments, and robust coordination frameworks, positions Morocco as a leader in climate resilience and sustainable development.

3.1 PRODUCTIVE SECTORS

Securing access to finance for productive sectors is essential for enhancing Morocco's climate resilience. Key productive sectors such as agriculture, fisheries, and tourism are particularly vulnerable to climate impacts, and targeted financial mechanisms are required to support adaptation in these areas.

- **Agriculture:** The agricultural sector, a cornerstone of Morocco's economy, faces significant challenges due to climate change. To address these challenges, Morocco has implemented several financial mechanisms to support sustainable agricultural practices. The Green Morocco Plan (Plan Maroc Vert¹³) is a flagship initiative that provides financial incentives for adopting climate-resilient farming techniques, such as drip irrigation and drought-resistant crops. Additionally, agricultural credit lines are available to farmers through institutions like Crédit Agricole du Maroc, facilitating investments in adaptation technologies and practices.
- **Fisheries:** The fisheries sector, vital for food security and livelihoods, is also a focus of Morocco's adaptation finance efforts. The Halieutis Plan aims to enhance the sustainability of marine resources and includes financial support for modernizing fishing fleets, improving aquaculture practices, and implementing marine conservation

¹² <https://www.soussmassa.ma/en/standing-committees>

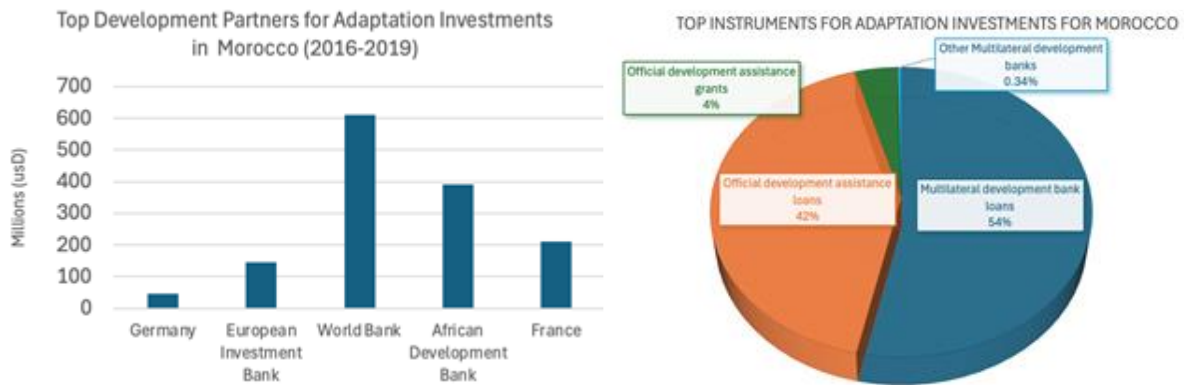
¹³ <https://www.achdartleflaha.ma/>

measures (UNCTAD, 2019). This financial support helps to mitigate the impacts of overfishing and climate change on marine ecosystems, ensuring the long-term viability of the fisheries sector.

- **Tourism:** Tourism, another critical sector for Morocco’s economy, is being adapted to become more sustainable and resilient to climate impacts. Financial mechanisms supporting the tourism sector include grants and loans for eco-friendly infrastructure projects, such as sustainable hotels and renewable energy installations. Programs like the Moroccan Sustainable Tourism Program¹⁴ offer financial incentives to tourism businesses that implement practices reducing their environmental footprint and enhancing resilience to climate variability.

The financial landscape for adaptation investments in Morocco between 2016 and 2019 has been notably shaped by contributions from key development partners. The World Bank emerged as the largest contributor with USD 611 million, followed by the African Development Bank at USD 391 million, the European Investment Bank with USD 146 million, France at USD 210 million, and Germany with USD 45.4 million. The primary instruments utilized for these investments include multilateral development bank loans, comprising 53.5% of the total, official development assistance loans at 42.1%, official development assistance grants at 4%, and other multilateral development banks at 0.34%.

Figure 2. Overview of Adaptation Finance for Productive Sectors in Morocco (2016-2019)



Source: GEF, 2023.

The section below provides an overview of the main programmes for climate adaptation in Morocco (Table 1).

¹⁴ <https://preprodweb.smit.gov.ma/en/development-initiative/>

Table 1. Overview of the main programmes for climate adaptation in Morocco

Programme	Type	Executed By	Total Project Cost (Million USD)	GCF Contribution (Million USD)	Project Period	Disbursement Status	Outcomes	Link
FP022: Development of Arganiculture Orchards in Degraded Environment (DARED)	Public, Single-country, Cross-cutting project	Agricultural Development Agency (ANDZOA)	49.2	39.3	2017–2023	Over 50% of the GCF grant has been disbursed	Positive outcomes include good results in arganiculture and emerging paradigm shift contributions	https://www.greenclimate.fund/document/development-argan-orchards-degraded-environment-dared
FP025: GCF-EBRD SEFF Co-financing Programme	Private, Multi-country (10 countries), Cross-cutting project	EBRD SEFF (participating financial institutions)	1400	378	Started in March 2017	All allocated GCF funds have been used for subprojects	Involving residential and commercial investments through Moroccan banks such as Attijariwafa Bank and CIH	https://www.greenclimate.fund/project/fp025
FP042: Irrigation Development and Adaptation of Irrigated Agriculture to Climate Change in Semi-arid Morocco	Public, Single-country, Adaptation project	AFD and the Ministry of Agriculture and Maritime Fisheries	84.8	22.3	2017–2024	Less than 50% of the GCF grant has been disbursed to date	Improved irrigation efficiency and enhanced climate resilience in semi-arid regions	https://www.greenclimate.fund/project/fp042
FP043: The Saiss Water Conservation Project	Public, Single-country, Adaptation project	EBRD and the Ministry of Agriculture and Maritime Fisheries	226.4	35.0	2017–2027	GCF grant fully disbursed and is under implementation	Enhanced water resource management and increased agricultural productivity in the Saiss region	https://www.greenclimate.fund/project/fp043
FP095: Transforming	Private, Multi-country (17)	AFD / Proparco (private sector)	715.2	262.9	Started in June 2019	In progress	Scaling up of climate finance for low-carbon	https://www.greenclimate.fund/project/fp095

Financial Systems for Climate	countries), Cross-cutting project				and will be completed in 2028		projects and increased financial resilience	
FP099: Climate Investor One	Private, Multi-country (18 countries), Mitigation project	Nederlandse Financierings-Maatschappij voor Ontwikkelingslanden	821.5	100	Started in June 2019 and will be completed in 2037	In progress	Support for renewable energy projects leading to significant emission reductions	https://www.greenclimate.fund/project/fp099
FP140: High Impact Programme for the Corporate Sector	Private, Multi-country (7 countries), Mitigation project	EBRD	1000	258	Started in June 2021 and will be completed in 2029	In progress	Promotion of low-carbon technologies and practices in the corporate	https://www.greenclimate.fund/project/fp140
FP151: Global Subnational Climate Fund (SnCF Global) – Technical Assistance (TA) Facility	Private, Multi-country (42 countries), Mitigation project	IUCN	28.0	18.5	Started in November 2020 and will be completed in 2028	In progress	Technical assistance for subnational climate projects	https://www.greenclimate.fund/project/fp151
FP152: Global Subnational Climate Fund (SnCF Global) – Equity	Private, Multi-country (42 countries), Mitigation project	Pegasus Capital Advisors	750	150	Started in February 2021 and will be completed in 2040	Ongoing	Equity financing for subnational climate projects	https://www.greenclimate.fund/project/fp152

3.2 CASE STUDY: INNOVATIVE PROJECTS FOR CLIMATE CHANGE MEASURES IN MOROCCO'S TOURISM SECTOR

Within Morocco's efforts to combat climate change and promote sustainable agriculture, innovative investment projects have been co-financed to reduce greenhouse gas emissions and enhance resilience in the agricultural sector. These initiatives aim to foster sustainable farming practices, improve water management, and strengthen collaboration between stakeholders to mitigate the impacts of climate change.

The Moroccan Ministry of Agriculture, Fisheries, Rural Development, Water and Forests, in collaboration with international partners such as the World Bank and the Green Climate Fund (GCF), facilitated several Calls for Proposals encouraging innovative investment projects in agriculture. Key focus areas included:

- Improving irrigation efficiency and adopting climate-smart agriculture practices.
- Promoting the use of renewable energy sources in agricultural operations.
- Enhancing soil conservation and sustainable land management practices.
- Facilitating access to financial resources and technical assistance.
- Strengthening cooperation between local administrations, the private sector, and non-governmental organizations (NGOs).

Projects received up to 50% co-financing of their total cost, with a maximum support limit of €200,000. Eligibility criteria encompassed various aspects such as:

- Agricultural development and innovation.
- Reduction of greenhouse gas emissions.
- Financial readiness and project documentation completeness.
- Implementation period and geographical area.
- Promotion of gender equality and inclusion.

Several innovative projects received support, totaling over €15 million in investment, with €7.5 million co-financed. Implemented technologies and practices led to:

- Significant improvements in irrigation efficiency, reducing water consumption by up to 30%.
- Adoption of renewable energy systems, such as solar-powered irrigation pumps, leading to a reduction in carbon emissions.
- Implementation of soil conservation techniques, reducing soil erosion and enhancing soil fertility.
- Creation of over 100 green jobs in rural communities, particularly benefiting women and youth.
- Development of Monitoring, Reporting, and Verification (MRV) frameworks to track the impacts of supported projects.

3.3 CURRENTLY AVAILABLE CALLS FOR FINANCING SUSTAINABILITY IN THE PRODUCTIVE SECTOR

The list on Table 2 summarizes the currently available calls for financing sustainability in the productive sector in Morocco. This includes various initiatives aimed at promoting sustainable practices, energy efficiency, and environmental protection across different sectors, including coastal resilience.

Table 2. Current available calls for financing sustainability in the productive sector

Status	Description	Date Started
Calls for Proposals in Progress	Subsidies for Solar Energy Projects: This initiative focuses on providing subsidies for the installation of solar panels in industrial and agricultural sectors to promote the use of renewable energy sources and reduce carbon emissions.	January 15, 2024
	Grants for Energy Efficiency in Manufacturing: Aimed at businesses in the manufacturing sector, this call offers financial support for implementing energy efficiency measures, such as upgrading machinery and optimizing production processes.	December 20, 2023
	Funding for Sustainable Tourism Development: This program allocates grants to tourism businesses that adopt sustainable practices, including the use of renewable energy, waste reduction initiatives, and eco-friendly accommodation facilities.	February 10, 2024
	Support for Water Conservation Projects: Financial assistance for projects that focus on water conservation and efficient water management in agriculture and industrial sectors. This includes the implementation of modern irrigation systems and recycling of industrial water.	January 5, 2024
	Subsidies for Electric and Hybrid Vehicle Purchases: Targeted at both public and private sectors, this initiative provides subsidies for the purchase of electric and hybrid vehicles to reduce transportation-related emissions.	December 8, 2023
	Coastal Resilience Projects: This call supports projects aimed at enhancing coastal resilience through the implementation of nature-based solutions such as mangrove restoration, dune stabilization, and the construction of protective barriers against sea level rise and erosion.	January 10, 2024
	Funding for Sustainable Fisheries: This initiative offers grants and subsidies to support sustainable fishing practices, enhance marine biodiversity, and improve the livelihoods of coastal communities.	February 1, 2024

These funding opportunities reflect Morocco's commitment to enhancing sustainability, energy efficiency, and environmental protection across various sectors, including coastal resilience. They also highlight the role of financial incentives in promoting green practices and reducing the environmental impact of productive activities.

For more detailed information on these calls and how to apply, refer to the official websites of the Moroccan Ministry of Energy, Mines and Environment and the Moroccan Agency for Sustainable Energy¹⁵.

3.4 NATIONAL INVESTMENT FUND FOR COASTAL ADAPTATION

Morocco has recognized the critical need to enhance the resilience of its coastal areas to climate change impacts such as sea level rise, coastal erosion, and extreme weather events. To address these challenges, some investment funds have been established, focusing specifically on financing projects that also support coastal adaptation and ensure sustainable development along the Moroccan coastlines. These funds include:

1. Fonds de Développement Énergétique (FDE) - Sustainable Energy Fund: while primarily aimed at promoting renewable energy and energy efficiency, the FDE also allocates resources to projects that have a direct impact on coastal adaptation. This includes financing for energy-efficient water management systems and infrastructure that mitigate the effects of climate change in coastal areas.
2. Morocco Green Investment Fund: in June 2023, Morocco and the Netherlands launched a €300 million investment fund to finance green initiatives, including coastal adaptation projects. This fund aims to support infrastructure, water management, agriculture, and renewable energy projects that enhance climate resilience and sustainability in Morocco.
3. Fonds Hassan II for Economic and Social Development: the Fonds Hassan II supports various development projects in Morocco, including those aimed at enhancing coastal resilience. This fund provides financial resources for infrastructure improvements, environmental protection, and community development projects along the coast.

¹⁵ <https://www.masen.ma/en>

4 Zoom In on the SCCF Project Pilot Site: The Tangier-Tétouan-Al Hoceima Region

The Tangier-Tétouan-Al Hoceima (TTA) region in Morocco is highly vulnerable to several climate risks. The main climate risks in this area are sea level rise (SLR), coastal erosion, and extreme weather events. SLR in this area ranges between 2.4 and 5.2 mm per year, posing a significant threat to coastal infrastructure, ecosystems, and communities. This increase in sea level heightens the risk of flooding, which can lead to extensive damage to property and loss of habitats. Coastal erosion exacerbates these issues by progressively wearing away the shoreline, further endangering both human and natural systems. Additionally, the region faces the risk of extreme weather events such as storms and heavy rainfall, which can cause severe flooding and landslides. These events not only disrupt daily life but also have long-term impacts on agriculture, water resources, and the overall economy of the region. The combination of these climate risks necessitates comprehensive adaptation measures to protect the region's social, economic, and environmental assets.

As mentioned above, the TTA region was one of the two pilot projects of the Special Climate Change Fund (SCCF) Project, a key component of the GEF MedProgramme aimed at enhancing regional climate change adaptation in the Mediterranean marine and coastal areas. This selection was based on the region's significant vulnerability to climate change impacts due to its extensive coastal areas and reliance on climate-sensitive sectors such as agriculture, fisheries, and tourism. By examining this pilot site, the SCCF Project seeks to provide a model for other regions facing similar climate-related challenges, ultimately contributing to the broader goal of regional climate resilience. Indeed, the SCCF project aims to develop and implement targeted strategies to address these vulnerabilities, with a focus on improving financial mechanisms and adaptation measures.

4.1 FINANCE SECTOR CHALLENGES AND GAPS

At the sub-regional level, the TTA region faces significant financial gaps in addressing climate adaptation. The primary challenge is the inadequacy of funding mechanisms specifically tailored to the needs of coastal areas. Existing financial structures do not sufficiently support large-scale adaptation projects, which are essential for enhancing resilience against sea-level rise, coastal erosion, and extreme weather events. There is a lack of comprehensive climate risk assessments, making it difficult for financial institutions to develop products and services that cater to the unique vulnerabilities of coastal communities and industries.

Moreover, the financial resources allocated to adaptation projects are often limited, with many initiatives struggling to secure the necessary funding. Indeed, although some climate funds have been established, they are not adequately scaled to meet the region's needs. This financial shortfall is compounded by the region's reliance on traditional funding sources, which are not equipped to address the specific risks posed by climate change in coastal areas.

4.2 CURRENT FINANCIAL INITIATIVES

Several initiatives aimed at addressing these gaps have been introduced, such as the development of climate adaptation funds and the integration of climate risks into financial decision-making processes. For instance, the regional TTA Coastal Plan (*Schéma régional du littoral de la Région Tangier-Tetouan-Al Hoceima*), currently under elaboration, includes recommendations for mainstreaming adaptation strategies. However, implementation is often hindered by insufficient financial resources and investment. The region requires substantial investment to improve infrastructure and resilience, yet current financial flows are inadequate to meet these demands. Additionally, there is a need for more robust financial instruments that can attract private sector investment. Innovative financial products, such as climate bonds and green loans, could provide the necessary capital for large-scale adaptation projects. However, these instruments are still underdeveloped in the region, and there is a lack of capacity and expertise to effectively implement them.

4.3 ROLE OF PUBLIC AND PRIVATE SECTOR PARTNERSHIPS

Public-private partnerships (PPPs) are identified as a critical avenue for mobilizing the necessary funds for climate adaptation in TTA. These partnerships can leverage private sector investment to complement public funds, thus addressing the financial shortfalls specific to the region. However, establishing effective PPPs faces several challenges, including regulatory barriers, lack of incentives for private investors, and the need for clear frameworks to ensure transparency and accountability. Strengthening these partnerships is essential for pooling resources and sharing risks associated with large-scale adaptation projects.

4.4 RECOMMENDATIONS FOR ENHANCING FINANCIAL READINESS

To enhance financial readiness for coastal adaptation in the Tangier-Tétouan-Al Hoceima region, several measures are recommended:

1. **Developing Specialized Climate Funds:** Establish dedicated funds that specifically target coastal adaptation projects within the region, ensuring that resources are allocated to the most vulnerable sectors.
2. **Enhancing Financial Products and Services:** Financial institutions in the region should develop products that incorporate climate risk assessments and offer favorable terms for adaptation investments, tailored to the region's specific needs.
3. **Strengthening Regulatory Frameworks:** Regional governments need to create enabling environments that facilitate PPPs and private investments in climate adaptation through supportive policies and incentives.
4. **Building Institutional Capacity:** Both public and private sector institutions in the region need to build capacity to understand and manage climate risks, ensuring that financial decisions are informed by robust climate data and risk assessments.

These steps are essential for closing the financial gaps and ensuring that the Tangier-Tétouan-Al Hoceima region can effectively adapt to the impacts of climate change, safeguarding its key economic sectors and communities.

5 Assessment of the Moroccan Financial Sector

Morocco's financial institutions play a pivotal role in aligning with sustainability and climate action objectives. The financial sector, comprising banks, insurance companies, and other financial entities, showcases a varied approach to sustainability. Key actors among these sectors include:

- **Insurance Sector:** Companies like Wafa Assurance and AXA Assurance Maroc have begun integrating climate risk assessments into their insurance products, offering coverage for climate-related damages and promoting resilience among policyholders.
- **Banking Sector:** Leading banks such as Attijariwafa Bank, Banque Centrale Populaire (BCP), and BMCE Bank of Africa are increasingly involved in green financing initiatives, although comprehensive integration of climate risk assessments remains limited.

Moroccan banks are gradually incorporating climate and environmental risks into their financial assessments, although significant gaps remain:

- **Monitoring Exposure to Climate Risks:** Most banks in Morocco do not yet comprehensively monitor their exposure to climate and environmental risks. This gap poses a challenge for integrating climate resilience into financial decision-making.
- **Policies and Procedures:** A majority of banks lack appropriate policies and procedures to analyze climate change risks when approving loans. This indicates a need for stronger regulatory frameworks and internal guidelines to ensure climate risks are considered in financial operations.
- **Green Products and Loans:** Some Moroccan banks have started to offer green products and energy efficiency loans, reflecting an emerging commitment to green finance. These products are essential for supporting sustainable projects and reducing carbon footprints in various sectors.

Best Practices and Strategic Initiatives

1. **Wafa Assurance's Sustainability Commitment:** Wafa Assurance has implemented strategies to enhance sustainability across its operations. This includes promoting eco-friendly insurance products and supporting initiatives that align with Morocco's climate goals. Their approach serves as a benchmark for other financial institutions in the country.
2. **Attijariwafa Bank's Green Financing:** Attijariwafa Bank has developed several green financing products aimed at supporting renewable energy projects and energy efficiency improvements. This initiative highlights the bank's proactive role in fostering sustainable development through financial mechanisms.

Recommendations for Enhancing Climate Finance Integration

1. **Developing Regulatory Frameworks:** Strengthening the regulatory frameworks to mandate the inclusion of climate risk assessments in financial decision-making processes is crucial. This includes setting clear guidelines and standards for all financial institutions.
2. **Capacity Building and Training:** Implementing regular training programs for staff within financial institutions to enhance their understanding of climate risks and the importance of sustainable finance. This will build internal capacity to manage and assess climate-related financial risks effectively.
3. **Enhancing Data Management:** Investing in data management systems to improve the accuracy and availability of climate data. This will enable financial institutions to make informed decisions and better assess the risks associated with climate change.
4. **Promoting Green Finance Products:** Encouraging the development and promotion of green finance products, such as green bonds and sustainability-linked loans, to support projects that contribute to climate resilience and environmental sustainability.

These steps will help Morocco's financial sector better align with national and international climate goals, promoting sustainable development and enhancing resilience against climate change impacts. A table presenting all institutions in the financial sector with green or climate change product offerings is included in Annex I.

5.1 KEY FINDINGS

The rapid capacity assessment of Morocco's finance and private sectors highlights the progress and challenges in integrating climate change considerations into financial practices. This assessment draws on recent evaluations and reports from institutions such as the World Bank (World Bank, 2022; Bove and Ounissi, 2023), the GEF (2018, 2023), the Initiative for Climate Action Transparency (ICAT, 2024), and UNEP (UNEP, 2023), providing a comprehensive view of the current state of climate finance in Morocco.

- **Institutional Framework and Coordination:**

Morocco has developed a dual public-private financial protection system to enhance resilience against disasters and climate shocks¹⁶. This innovative system includes market-based insurance and solidarity principles to cover both insured and uninsured households, showcasing a strong institutional framework for disaster risk management. However, there is a need for improved coordination among various stakeholders to ensure a cohesive approach to climate risk management and financing.

- **Financial Resources and Investment:**

The World Bank's "Morocco Country Climate and Development Report" estimates that significant investments are needed to place Morocco on a resilient and low-carbon pathway (World Bank, 2022). Approximately \$78 billion in investments by 2050 are required, with a considerable portion expected to come from the private sector. Despite the ambitious investment needs, there is a gap in mobilizing adequate financial resources, particularly from private sector entities. The current engagement of private finance in climate adaptation and resilience is limited, necessitating targeted efforts to incentivize private investments.

- **Policies and Regulatory Environment:**

Morocco has made strides in creating an enabling legal and regulatory environment for climate finance. The adoption of Law 110-14 institutionalized financial protection against disasters, setting a precedent for other climate-related financial instruments.

Further regulatory reforms are needed to integrate climate risk assessments into all financial decision-making processes and to promote the development of green financial products.

- **Private Sector Involvement:**

The private sector's involvement in climate finance is growing, but it remains insufficient.

Financial institutions, including banks and insurance companies, are beginning to offer green products and services. However, comprehensive integration of climate risk assessments into their operations is still in the early stages.

- **Capacity Building and Knowledge Management:**

There is a critical need for capacity building within financial institutions to enhance their understanding and management of climate risks. Training programs and technical assistance from international organizations can play a vital role in building this capacity.

Improved data management and accessibility are essential for informed decision-making. Accurate and comprehensive climate data should be integrated into financial planning and risk assessment processes.

5.2 RECOMMENDATIONS

1. Enhancing Regulatory Frameworks:

- Strengthen regulatory frameworks to mandate the inclusion of climate risk assessments in financial decision-making. Establish clear guidelines and standards for financial institutions to follow.

¹⁶<https://www.worldbank.org/en/results/2024/04/18/from-disasters-to-opportunities-building-a-resilient-future-in-morocco#:~:text=With%20support%20from%20the%20World,events%2C%20thus%20mobilizing%20private%20capital>. World Bank, 2024, From Dis

2. Promoting Private Sector Investment:

- Develop incentives and financial mechanisms to encourage private sector investment in climate adaptation and resilience projects. This could include tax breaks, subsidies, and public-private partnership models.

3. Building Institutional Capacity:

- Implement regular training and capacity-building programs for financial sector professionals. Collaborate with international partners to provide technical assistance and share best practices.

4. Improving Data Management:

- Invest in technologies and systems that enhance the accuracy and availability of climate data. Ensure that this data is accessible to all relevant stakeholders for better planning and decision-making.

5. Fostering Public-Private Partnerships:

- Strengthen collaborations between public entities and private sector players to leverage financial resources and expertise. This can help bridge the financing gap and enhance the overall effectiveness of climate finance initiatives.

By addressing these gaps and building on the existing strengths, Morocco's financial sector can play a crucial role in advancing the country's climate resilience and sustainable development goals.

Table 3. Morocco's financial sector analysis

Bank name	Sector	Website	Green or CC product	Description
Wafa Insurance (Allianz partner office)	Insurance companies	https://www.attijariwafabank.com/en/csr	https://www.attijariwafabank.com/en/csr/respecting-the-environment	Wafa Assurance, a subsidiary of Attijariwafa Bank, emphasizes prevention in its insurance approach, aiming to reduce risks and prevent disasters before they occur. They offer personalized support programs administered by teams of prevention engineers to help companies mitigate risks, reflecting their commitment to environmental responsibility and sustainability.
AXA Assurance Maroc Insurance	Insurance companies	https://www.axa.ma/	https://www.axaservices.ma/la-strategie-rse/	AXA Maroc has a strong commitment to sustainability and offers several green insurance products and services aimed at promoting environmental responsibility. Their initiatives include insurance solutions that support the transition to a low-carbon economy and investments in green projects.
A.M. Best	Insurance companies	https://web.ambest.com/about/environmental-social-governance	https://web.ambest.com/docs/default-source/default-document-library/amb_principles_sustainable_insurance.pdf?sfvrsn=593872b0_7	A.M. Best, known for its insurance company ratings, integrates Environmental, Social, and Governance (ESG) factors into its assessments. They emphasize the importance of insurers addressing climate risks and integrating sustainable practices into their business models (Attijariwafa Bank).
Zurich Insurance	Insurance companies	https://www.zurich.com/en/sustainability	https://www.zurich.com/sustainability/planet	Zurich Insurance has a comprehensive sustainability strategy focusing on climate resilience and reducing environmental impacts. They offer green insurance products and support initiatives aimed at combating climate change through various programs and investments (Attijariwafa Bank).
AON	Reinsurance	https://www.aon.com/about-us/impact/environmental	https://www.aon.com/en/about/esg-impact/environment	AON is involved in numerous environmental and climate-related initiatives. They offer risk management solutions that help clients address climate risks, and they are actively engaged in efforts to reduce their own environmental footprint through sustainability practices.
Société Générale Maroc BMCI (BNP Paribas Group)	Bank	https://www.bmci.ma/	https://www.bmci.ma/nous-connaître/responsabilité-sociale-entreprises/	Société Générale Maroc, part of the BNP Paribas Group, is dedicated to sustainable development and offers a range of green finance products. These include loans and investment products aimed at supporting renewable energy projects and other environmentally friendly initiatives.
Citibank	Bank	https://www.citigroup.com/global/our-impact/sustainability	https://www.citigroup.com/global/our-impact/sustainability/net-zero	Citibank has a robust sustainability agenda, focusing on financing projects that mitigate climate change. They provide green bonds, loans for renewable energy projects, and other financial products that support sustainable development.
Crédit du Maroc (Crédit Agricole Group)	Bank	https://www.creditagricole.ma/fr/developpement-durable	https://www.creditagricole.ma/fr/programme-istidama	Crédit du Maroc, under the Crédit Agricole Group, is committed to sustainable development and offers financial products that promote environmental sustainability. Their initiatives include green loans and investments in renewable energy and other eco-friendly projects.

6 Next Steps: Strengthening the Macro-Framework and Capacity Building

To further Morocco's efforts in enhancing climate resilience and coastal adaptation finance, several strategic actions must be taken. These actions include improving institutional capacities, fostering public-private partnerships, developing robust financial mechanisms, and enhancing data management systems. This section outlines the critical steps necessary to strengthen the macro-framework for sustainable adaptation planning and financing in Morocco.

6.1 MACRO FRAMEWORKS

Enhancing Coordination Among Stakeholders

Improving coordination among government agencies, international organizations, and private sector stakeholders is crucial for streamlining climate financing mechanisms and promoting sustainable investments. Establishing a dedicated coordination platform can facilitate regular communication and collaboration among all stakeholders involved in climate finance, ensuring alignment of strategies and optimization of resources. The GCF report highlights the importance of integrating climate finance into broader national and regional strategies to ensure coherence and effectiveness.

Developing Robust Financial Mechanisms

Scaling Up Green Finance Products

Encouraging the development and promotion of green finance products, such as green bonds and sustainability-linked loans, is essential to support projects contributing to climate resilience and environmental sustainability. Financial institutions should be incentivized to develop innovative financial instruments tailored to the specific needs of climate adaptation projects in coastal and vulnerable regions.

Public-Private Partnerships (PPPs)

Leveraging public-private partnerships can attract private investment for climate-resilient infrastructure and technologies. PPPs can play a pivotal role in implementing large-scale projects, such as water conservation systems and renewable energy installations, that require significant investment and technical expertise.

Improving Data Management

Investing in data management systems to improve the accuracy and availability of climate data is vital for informed decision-making. Enhanced data management will enable financial institutions and policymakers to better assess climate risks and develop targeted adaptation strategies. Integrating advanced technologies for real-time data collection and analysis can significantly improve the responsiveness and effectiveness of climate adaptation efforts.

Strengthening Regulatory Frameworks

Developing and strengthening regulatory frameworks to mandate the inclusion of climate risk assessments in financial decision-making processes is crucial. Establishing clear guidelines and standards for all financial institutions will ensure that climate risks are systematically considered in lending and investment activities.

Supporting Subnational Climate Initiatives

Fostering regional and local climate initiatives can enhance resilience at the grassroots level. Supporting the development of subnational climate action plans and providing targeted funding for local adaptation projects can ensure that vulnerable communities are adequately equipped to cope with climate impacts. The GEF report emphasizes the role of decentralized planning and implementation to address region-specific climate challenges effectively.

Promoting Knowledge Sharing and Best Practices

Facilitating knowledge sharing and dissemination of best practices through workshops, seminars, and online platforms can enhance the capacity of stakeholders to implement effective climate adaptation measures. Encouraging collaboration and

exchange of experiences among regions facing similar climate challenges can lead to the adoption of innovative and effective solutions.

6.2 CAPACITY BUILDING

In order to achieve its ambitions in climate finance, Morocco has implemented various training and capacity building programmes aimed at enhancing the resilience of its coastal areas to climate change. These initiatives, supported by both national and international organizations, focus on building the capacity of financial institutions and the private sector to integrate climate risk considerations into their operations and investment decisions. Below is an overview of some of these efforts.

Table 4. Main existing training programs aimed at enhancing the resilience of its coastal areas to climate change

Title of the Workshop/ Training	Institution	Project	Link	Gaps Identified
Supporting Morocco's National Adaptation Plan (NAP) Process	UNDP	Supporting Morocco's National Adaptation Plan (NAP) Process	https://www.globalsupportprogramme.org/projects/supporting-morocco-advance-their-nap-process	<ul style="list-style-type: none"> - The existing institutional framework is not conducive to the effective implementation of the Morocco National Climate Change Policy. - There is a need to broaden the ownership at the provincial and local levels. - There is a need to strengthen systems for predicting, observing and monitoring climate change impacts.
Ecosystem-Based Adaptation (EbA) Training	World Bank, UNDP	Various climate resilience projects	https://planbleu.org/wp-content/uploads/2022/11/Med_EbA-factsheet.pdf	Limited awareness and understanding of EbA practices among local stakeholders
Capacity Building for Climate Risk Assessment	ICAT	ICAT Scoping Report	https://climateactiontransparency.org/country/morocco/	Need for enhanced capacity in climate finance metrics and governance among stakeholders
Climate Insurance Schemes Training	Wafa Assurance, AXA Assurance Maroc	Development of climate insurance products	https://climate-insurance.org/projects/advancing-climate-risk-insurance-plus/	Lack of awareness and understanding of climate insurance products among farmers and local communities
Climate Finance Tracking Framework Workshop	ICAT	ICAT Scoping Report	https://climateactiontransparency.org/country/morocco/	Need for improved data management systems for tracking climate finance
Disaster Risk Management	World Bank	Strengthening disaster and climate resilience	https://www.worldbank.org/en/results/2024/04/18/from-disasters-to-opportunities-building-a-resilient-future-in-morocco	Need for increased financial protection, institutional capacity, disaster preparedness, risk understanding, and the need for a proactive disaster risk management approach in Morocco.

Despite the progress made through existing training and capacity-building programs, there remains a significant need for additional training to address the evolving challenges and gaps in climate resilience and coastal adaptation finance in Morocco. Current programs have laid a strong foundation. However, the rapidly changing climate landscape and the increasing complexity of financial instruments necessitate ongoing education and skill development. Enhancing the capacity of stakeholders at all levels, from policymakers to financial institutions and local communities, is essential to

ensure that climate risk considerations are effectively integrated into all aspects of operations and investment decisions. This ongoing commitment to training will help Morocco stay ahead of emerging risks, leverage new financial opportunities, and maintain the momentum towards achieving its ambitious climate finance goals.

To enhance climate resilience and coastal adaptation finance in Morocco, it is crucial to implement additional training programs that cater to the needs of various stakeholders, including policymakers, financial institutions, and local communities.

These training programs should focus on several key areas:

1. Understanding Climate Risks and Impacts:

- Training should cover the basics of climate science, the specific climate risks Morocco faces, and the potential impacts on different sectors such as agriculture, fisheries, tourism, and water resources.
- Modules should include case studies and real-world examples to illustrate how climate change is affecting Morocco and what can be done to mitigate these effects.

2. Integrating Climate Risk Assessments into Financial Decision-Making:

- Financial institutions need to understand how to incorporate climate risk assessments into their lending and investment decisions.
- Training should include methodologies for evaluating climate risks, integrating these risks into financial models, and understanding the long-term implications for investments.

3. Developing and Managing Green Finance Products:

- Financial institutions and policymakers should be trained on developing and managing green finance products such as green bonds, sustainability-linked loans, and climate insurance schemes.
- This training should cover the entire lifecycle of these products, from conceptualization and design to implementation and monitoring.

4. Implementing Best Practices for Sustainable Development:

- Training should include best practices for sustainable development, focusing on how to create and maintain resilient infrastructures and communities.
- Topics should include sustainable agricultural practices, renewable energy integration, and community-based adaptation strategies.

5. Advanced Data Management Systems:

- Accurate and timely climate data is crucial for informed decision-making. Training should cover the use of advanced data management systems for climate data collection, analysis, and dissemination.
- Stakeholders should learn about the latest technologies in climate data management, including real-time data collection tools and platforms for sharing data.

6. Regular Updates and Capacity-Building Initiatives:

- Training programs should be regularly updated to reflect the latest developments in climate science, finance, and policy.
- Continuous capacity-building initiatives are essential to ensure that stakeholders are well-equipped to navigate the complexities of climate adaptation and finance.

By addressing these capacity building needs, Morocco can significantly improve its framework for climate resilience and coastal adaptation finance. These comprehensive training programs will ensure that all relevant stakeholders have the knowledge and skills necessary to effectively manage climate risks and implement sustainable practices. This approach will support Morocco's transition towards a low-carbon economy and demonstrate the country's commitment to global climate mitigation efforts.

Conclusion

Morocco's efforts to combat climate change and promote sustainable development are evident through its comprehensive policies, strategic initiatives, and active participation in international and regional collaborations. However, while significant strides have been made in climate action, these efforts have predominantly focused on mitigation rather than adaptation. The need for coastal adaptation remains critical, particularly in regions like Tangier-Tétouan-Al Hoceima, which face acute climate risks such as sea-level rise, coastal erosion, and extreme weather events.

Morocco's National Climate Change Policy and National Adaptation Plan (NAP) provide a strong foundation for addressing these challenges. These policies emphasize both mitigation and adaptation, aiming to reduce greenhouse gas emissions and enhance resilience across various sectors. Notable initiatives such as the Noor Ouarzazate Solar Complex and the Green Morocco Plan highlight Morocco's proactive approach to integrating renewable energy and sustainable agricultural practices. Furthermore, Morocco's participation in international climate agreements, such as the Paris Agreement, and regional collaborations, like the Mediterranean Strategy for Sustainable Development (MSSD) and the Union for the Mediterranean (UfM), underscore its commitment to global climate goals.

Despite these efforts, there is a significant gap in the implementation of adaptation measures. This gap is due to several factors, including limited private sector engagement, regulatory gaps, and inadequate climate data management. The financial sector's support for coastal adaptation is hindered by a lack of institutional awareness, insufficient funding mechanisms, and a scarcity of bankable projects. Effective coastal adaptation requires a strategic and multifaceted approach that integrates spatial planning and context-specific, locally adapted Nature-based Solutions (NbS).

To address these challenges, more capacity-building is needed both at the government and institutional levels and within the financial and private sectors. Strengthening regulatory frameworks to mandate the inclusion of climate risk assessments in financial decision-making processes is crucial. Developing incentives and financial mechanisms to encourage private sector investment in climate adaptation and resilience projects, along with continuous training and capacity-building programs for stakeholders, will enhance their ability to manage and assess climate-related financial risks effectively.

Improving data management systems to ensure accurate and timely climate data collection and analysis is also vital. Enhanced coordination among government agencies, international organizations, and private sector stakeholders will streamline climate financing mechanisms and promote sustainable investments. Leveraging public-private partnerships can attract private investment for climate-resilient infrastructure and technologies, providing the necessary capital for large-scale adaptation projects.

By addressing these gaps and leveraging existing strengths, Morocco can further enhance its framework for climate action, ensuring a sustainable and resilient future. The comprehensive approach detailed in this report serves as a guide for advancing Morocco's transition towards a low-carbon economy and demonstrates the country's commitment to global climate mitigation efforts. The proactive strategies and robust financial support mechanisms highlighted in this report underscore Morocco's leadership in climate resilience and sustainable development, particularly in the Tangier-Tétouan-Al Hoceima region.

Annex

Table 5. Morocco's financial institutions

Country	Name stakeholder	Sector	Green or CC product
Morocco	Wafa Insurance (Allianz partner office)	Insurance companies	https://www.attijariwafabank.com/en/csr/respecting-the-environment
Morocco	AXA Assurance Maroc Insurance	Insurance companies	https://www.axaservices.ma/la-strategie-rse/
Morocco	A.M. Best	Insurance companies	https://web.ambest.com/docs/default-source/default-document-library/amb_principles_sustainable_insurance.pdf?sfvrsn=593872b0_7
Morocco	Zurich Insurance	Insurance companies	https://www.zurich.com/sustainability/planet
Morocco	AON	Reinsurance	https://www.aon.com/en/about/esg-impact/environment
Morocco	Société Générale Maroc BMCI (BNP Paribas Group)	Bank	https://www.bmci.ma/nous-connaître/responsabilite-sociale-entreprises/
Morocco	Citibank	Bank	https://www.citigroup.com/global/our-impact/sustainability/net-zero
Morocco	Crédit du Maroc (Crédit Agricole Group)	Bank	https://www.creditagricole.ma/fr/programme-istidama

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