

# MedProgramme SCCF Project

## Strengthening Coastal Adaptation in the Mediterranean





MedProgramme SCCF Project:  
**Strengthening Coastal Adaptation  
in the Mediterranean**



As part of the SCCF MedProgramme project “Enhancing Regional Climate Change Adaptation in the Mediterranean Marine and Coastal Areas” we are committed to empowering Mediterranean coastal communities to effectively confront the challenges posed by climate change.

Our objective is to create a practical and actionable roadmap that integrates adaptation measures into coastal development plans.

## Here is how we do it:

- ✓ **Identify climate hotspots** – pinpoint the most vulnerable areas using regional and national research to focus our efforts where they are needed most

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- ✓ **Review existing laws and institutions** – analyze current policies and frameworks to uncover what is already in place for climate adaptation and identify areas for improvement

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- ✓ **Engage key stakeholders** – map out key players, assess their capacities, and foster collaboration to tackle pressing challenges

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- ✓ **Secure policy support** – partner with policymakers to build support for climate initiatives that can drive change

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- ✓ **Ensure inclusivity** – conduct gender-sensitive climate risk assessments to ensure that adaptation strategies benefit women and men, promoting equity and resilience

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- ✓ **Showcase best practices** – highlight successful examples of climate adaptation from other regions, demonstrating what is possible and inspiring action

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- ✓ **Provide hands-on training** – offer practical training in ecosystems and nature-based solutions, equipping communities with essential skills

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- ✓ **Identify community priorities together** – actively involve the community in selecting the most urgent adaptation measures to foster ownership and commitment

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- ✓ **Assess benefits and costs** – conduct in-depth cost-benefit analyses to provide insights into the feasibility of proposed actions, guiding informed decisions

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- ✓ **Integrate adaptation into coastal plans** – assist local governments in embedding adaptation measures into their plans and regulations, aligning development with sustainability

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- ✓ **Find sustainable financing** – develop strategies to secure diverse funding sources, ensuring that adaptation measures are implemented effectively

**By following this strategic and inclusive roadmap, we aim to equip Mediterranean coastal communities with the essential tools from a gender equality perspective to thrive amid the realities of climate change.**



**1.**

**Priority Hotspots  
for Adaptation**

## **Boka Kotorska Bay, Montenegro**

Boka Kotorska Bay in Montenegro is a stunning UNESCO World Heritage site, but it is facing serious climate-related risks.

### **Rising Sea Levels and Extreme Weather**

This bay is particularly vulnerable to rising sea levels and frequent extreme weather events, such as heavy rainfall and storm surges. Many historic towns are situated along the coast, putting homes, infrastructure, businesses, and priceless cultural landmarks at risk.

### **Unpredictable Rainfall and Water Issues**

Changing weather patterns - with longer dry spells followed by sudden intense rain - can lead to water shortages in summer and increase the risk of flooding, landslides and erosion in winter.

### **Threats to Marine Life**

Warmer seas and ocean acidification threaten marine life in the bay. This not only jeopardizes biodiversity but could also negatively impact local fishing, aquaculture and tourism.

### **Tourism at Risk**

Tourism is vital for the bay's economy, but climate change can damage coastal landscapes and disrupt tourism activities through extreme weather events such as forest fires and rising water levels.

### **Urban Development Challenges**

Rapid construction along the coast increases the risk of flooding and erosion, making the area even more vulnerable to climate impacts.

**Efforts to protect Boka Kotorska Bay must focus on reducing these risks, preserving its natural beauty, and ensuring a sustainable and equal future for its communities and socio-economy.**

## Tangier-Tetouan-Al Hoceima Region, Morocco

The Tangier-Tetouan-Al Hoceima (TTA) coastal region in Morocco is facing serious threats from climate change due to its unique geography and economic reliance on coastal activities.

### Rising Sea Level and Coastal Flooding

Low-lying areas, including key cities like Tangier and Tetouan, are increasingly at risk from rising sea levels, storm surges, and coastal flooding. This can speed up coastal erosion, leading to the loss of beaches, cliffs, and natural habitats, while also threatening homes, businesses, roads, ports, and historic sites.

### Freshwater Contamination

Rising sea levels, along with the overuse of coastal groundwater, can push saltwater further inland, contaminating freshwater supplies that are used for drinking and farming.

### Harm to Marine Life

Warmer, more acidic seas can harm marine life, resulting in changes in fish and shellfish populations. This not only affects marine biodiversity but also threatens local fisheries and the tourism industry, both of which depend on healthy ecosystems.

### Tourism and Fisheries at Risk

Tourism, a key driver of the TTA region's economy, is highly exposed to the impacts of climate change. Coastal erosion, extreme weather, and rising seas can damage beaches and infrastructure, making the area less attractive to visitors. Moreover, changes in fish populations can hurt local fisheries, affecting livelihoods and food supplies.

### Added Pressure from Urbanization and Pollution

Climate change could worsen existing issues, such as rapid urban development along the coast, which reduces natural buffers like sand dunes and wetlands. Pollution from cities and industry, already a problem, may also increase with more frequent heavy rainfall and flooding.

**Preserving the TTA coastal region requires immediate action to tackle these challenges. By protecting natural barriers, managing coastal development, and reducing pollution, we can ensure a safer and more sustainable future for local communities, economies, and ecosystems.**



# 2.

## **Gender-Sensitive Climate Risk Assessments: Understanding Risks for Better Action**

In two pilot areas, SCCF has implemented a climate risk assessment approach to help communities better understand and prepare for climate change impacts. These assessments use the **Multiscale Coastal Risk Index (MS-CRI)** method to evaluate how risks - such as rising sea levels, extreme weather, and coastal erosion - can affect both people (women and men) and the environment.

### **What Are Climate Risk Assessments For?**

The primary goal of these assessments is to provide local communities, policymakers, and businesses with clear information about climate risks. This information guides future actions like selecting priority adaptation measures, securing funding for coastal protection, and engaging the private sector in adaptation solutions.

### **Why Local Context Matters**

Every coastal area has unique features, making it essential to balance general climate trends with local realities to develop adaptation measures tailored to meet the specific needs of each location.

### **How Does Gender Play a Role?**

These assessments also explore how gender influences vulnerability to climate change. In coastal communities, women and men may experience the impacts of climate change differently due to their societal roles, access to resources, and economic opportunities. Understanding these differences is crucial for ensuring that adaptation efforts are inclusive and beneficial for everyone.

By combining scientific methods with local knowledge and a focus on gender, this multiscale approach ensures that climate adaptation plans are more effective, equitable, and relevant to those most affected.



**To learn more on the Gender-sensitive climate risk assessments please access the following documents:**  
**[Gender-sensitive climate risk assessment in TTA, Morocco](#)**  
**[Gender-sensitive climate risk assessments in BKB, Montenegro](#)**



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3.

**A Resource for  
Climate Change  
Adaptation:  
Sharing What Works**

SCCF has enhanced AdriAdapt, an online hub designed for everyone - from local communities and decision-makers to coastal planners—to discover and share successful solutions for adapting to climate change. This invaluable resource provides easy access to valuable insights, real-world examples, and proven strategies for protecting coastal areas from climate impacts. By sharing these good practices across the region, AdriAdapt helps communities plan smarter and take effective action to safeguard their coasts and livelihoods.



**To learn more about the repository, download the [Document on Good Practices](#) or visit [the AdriAdapt Knowledge Platform](#), which features even more inspiring case studies.**



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4.

**Nature-Based  
Solutions:  
A Natural Way to  
Adapt to  
Climate Change**

SCCF has developed a training module, available in English and French, to help communities and decision-makers in understanding how **Nature-based Solutions (NbS)** can protect coastal areas from the impacts of climate change.

## **KEY TOPICS:**

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**What are Nature-Based Solutions?**

**How can they support coastal adaptation?**

**Governance and financing of NbS projects**

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The module builds on ongoing work within the MedProgramme, including coastal planning, Integrated Coastal Zone Management (ICZM), and the Water-Energy-Food-Ecosystems Nexus (WEFE Nexus). It also showcases real-world examples from across the Mediterranean, highlighting successful NbS projects, the challenges encountered, and the lessons learned. Through these case studies, participants can explore practical recommendations for implementing NbS in their own regions.

By combining expert insights with hands-on examples, this training provides a solid foundation for future efforts in sustainable coastal adaptation - ensuring that nature itself becomes a key partner in building climate resilience.



**To learn more about NbS [check the report.](#)**



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5.

*Climagine:*  
**Shaping the Future  
of Coastal Areas  
through Participation**

***Climagine*** is a hands-on method used in the MedProgramme to bring together coastal communities, local authorities, and other key stakeholders to plan for a sustainable future. This approach helps participants envision and plan for long-term changes by examining how coastal areas have evolved, their current challenges, and future risks posed by climate change.

### **How Does *Climagine* Work?**

Through a collaborative process, stakeholders share ideas and knowledge to develop two coastal plans in SCCF pilot sites. They work together to identify the best adaptation solutions for their communities. *Climagine* also enhances stakeholder capacity in economic analysis methods, including cost-benefit analysis (CBA) and multi-criteria analysis, to support coastal adaptation solutions.

### **Why Use *Climagine*?**

By combining participatory governance and economic analysis, *Climagine* ensures that decisions about coastal adaptation are well-informed and widely supported. The approach balances the needs of both people and nature, aiming to improve resilience while promoting sustainable coastal development.

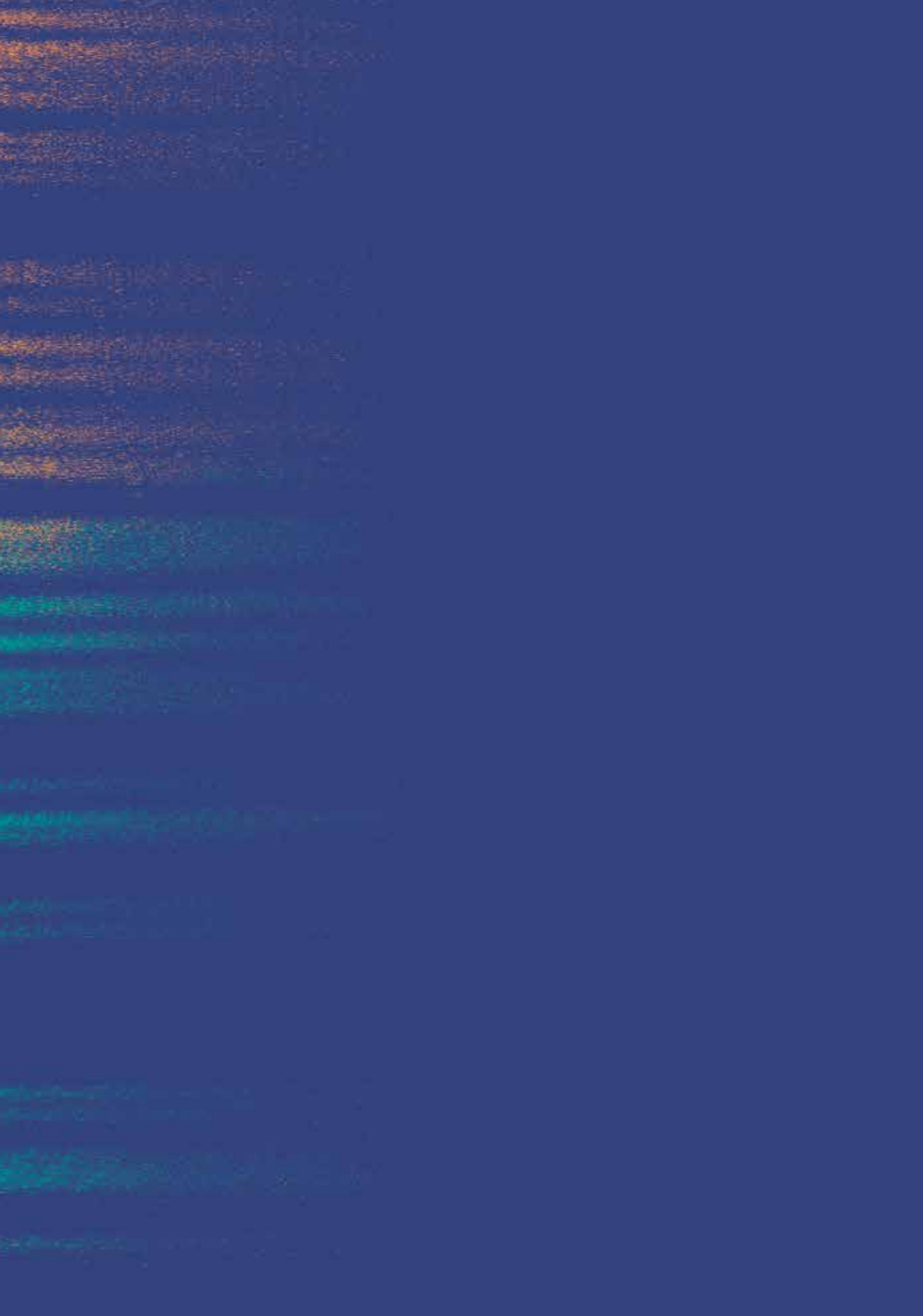
In the final stages, selected solutions undergo detailed cost-benefit analysis to ensure they are practical, effective, and worth investing in.



**To learn more about the *Climagine*,  
take a look at its following application in  
[TTA, Morocco and in BKB, Montenegro.](#)**



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6.

**Cost-Benefit Analysis  
to Evaluate Coastal  
Adaptation Measures**

To support coastal communities in adapting to climate change, SCCF has employed **Cost-Benefit Analysis (CBA)** to thoroughly evaluate proposed solutions in two pilot areas. CBA helps determine whether a project or policy is worth pursuing by comparing the costs of implementing it with the potential benefits it will bring. This systematic process assigns a monetary value to all activities associated with the project, helping to assess its feasibility and impact. CBA techniques are commonly used to evaluate the viability of business strategies and private and public projects. CBA plays a key role in securing funding for future coastal protection projects, ensuring investments are directed toward initiatives with tangible and measurable benefits.



**Learn more by exploring:**  
[CBA report for the TTA, Morocco](#)  
[CBA report for the BKB, Montenegro](#)

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7.

**Integrating Climate  
Adaptation into  
Coastal Management  
Plans**

One of the key goals of the SCCF project was to incorporate climate change adaptation measures into coastal management plans. To achieve this, local experts worked closely with regional and national stakeholders to develop practical recommendations aimed at protecting coastal areas from climate risks. These recommendations, specific to each coastal area, will help guide public policies and future decisions on priority actions for adapting to climate change. They were included in the action plans of the ICZM plans, paving the way for future implementation and ensuring that coastal communities are better prepared for climate challenges.

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### **1. Societal measures**

- **Establish a risk governance model to enhance coastal resilience**
- **Strengthen cooperation among institutions and different sectors**
- **Raise public awareness about climate risks and the urgency of action**
- **Promote research and innovation in climate adaptation strategies**
- **Set up early-warning systems for floods**
- **Adopt ICZM as a proactive and flexible approach to manage climate risks**

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### **2. Technical measures**

- **Implement strategies to prevent or reduce coastal flooding and erosion**
- **Develop solutions to combat heatwaves and reduce the impacts of urban heat islands**
- **Introduce measures to limit drought effects and water shortages**
- **Strengthen measures to prevent and manage wildfires**



**To explore the full details of the recommended measures integrated into coastal plans, please check:**  
**[ICZM Plan for the TTA, Morocco](#)**  
**[ICZM Plan for the BKB, Montenegro](#)**

## Boka Kotorska Bay, Montenegro

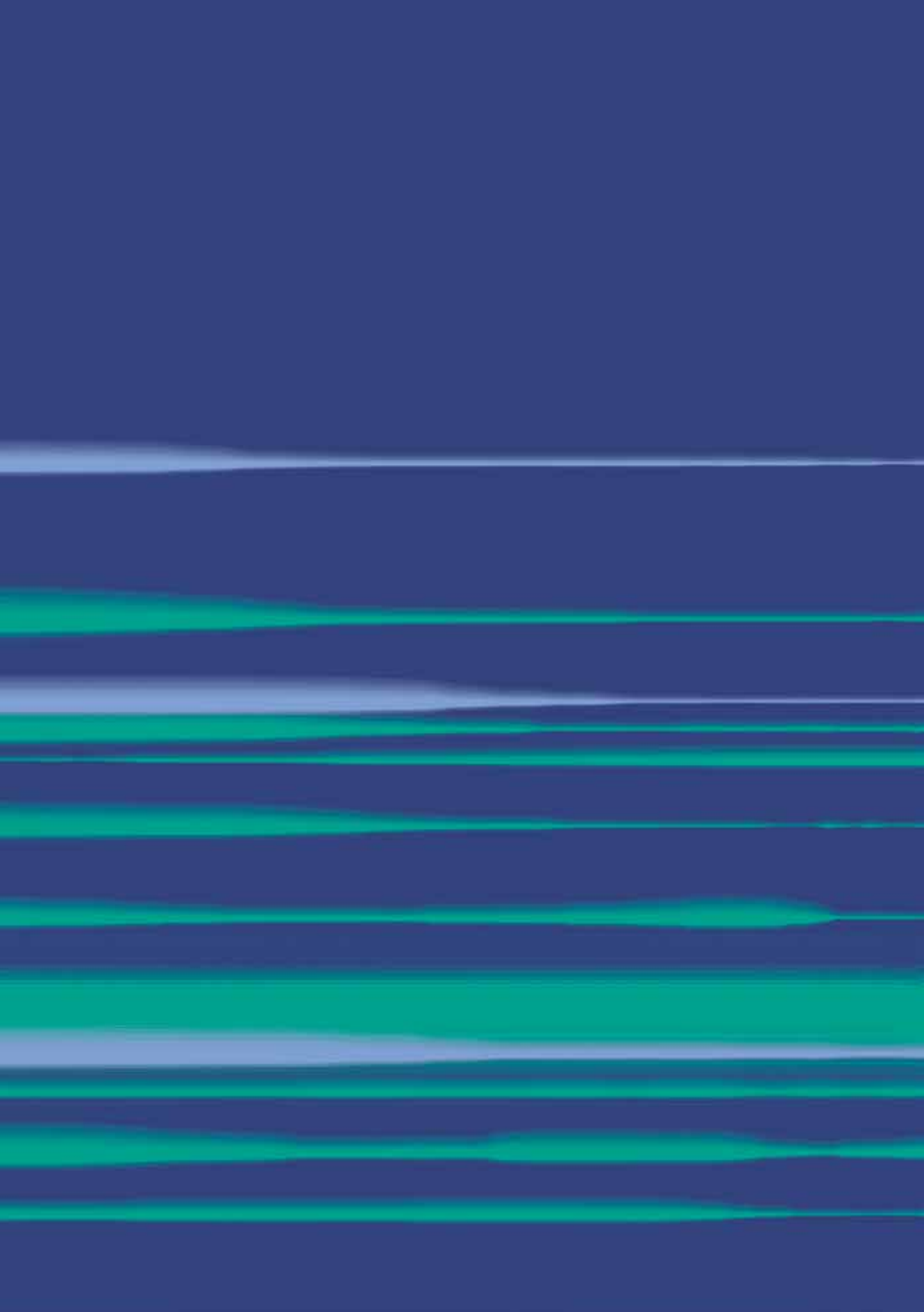
ADAPTATION OF COASTAL SPACE	WATER SUPPLY, SEWAGE WATER AND STORM WATER DRAINAGE
Implementation of coastal setback zone	Analysis of the potential of existing and potential water springs
Preservation of coastal forests and afforestation	Reduction of losses in water supply systems
Preservation of natural beaches, and measures to adapt beach areas with minimal environmental impact	Provision of water for drinking and watering in public areas
Measures for flood protection	Climate-resilient wastewater infrastructure
Fire prevention and rehabilitation measures	Development of stormwater drainage system
Measures related to the preservation of green areas and urban greening	New precipitation and hydrological analyses, and analyzes of the geological composition of the terrain
ADAPTATION RELATED TO MARINE ENVIRONMENT	OTHER ADAPTATION-RELATED MEASURES
Measures in the fisheries sector – controlled captures of certain new species in the Adriatic Sea	Early-warning systems
Measures in the maricultural sector	Awareness-raising and climate literacy
Protection of benthic communities	Measures related to tourism – focus on rural agro-tourism
Preservation of pelagic habitats	Measures related to the transportation sector

## Tangier-Tetouan-Al Hoceima, Morocco

PREVENT OR LIMIT THE RISK OF COASTAL FLOODING AND EROSION	FIGHT AGAINST THE HEAT WAVES AND THE URBAN HEAT ISLANDS
Implementation of coastal setback zone	Strengthening reforestation programs – afforestation, regeneration, silvo-pastoral improvement
Protection and restoration of the wetlands	
River rehabilitation and restoration	Promoting urban and peri-urban forests
Reduction of urban runoff	Promoting traditional design of buildings with natural ventilation and shadow to improve thermal comfort while saving energy
Dune construction and restoration	
Protection and restoration of seagrass beds	Encouraging resilient eco-districts in cities
Artificial beach nourishment	
Dikes, quays, groynes, and breakwaters	
Cliff stabilization and reinforcement	
LIMIT THE EFFECTS OF DROUGHT AND WATER SHORTAGE	FIGHT AGAINST WILDFIRES
Expand efforts to collect rainwater for reuse	Continue with forest fire prevention and control policies – new Integrated Forest Fire Management (2023-2033)
Continue to implement the wastewater reuse strategy	
Protect groundwater	Promote a holistic and integrated multi-hazard approach
Support liquid wastewater & discharge treatment	Awareness campaigns
Accelerate the construction of small dams & lakes	Address interactions and amplifications with climatic and non-climatic factors
Support desalination projects coupled with renewables	
Improve water recovery & rationalize consumption	
Promote the selection of adaptable seeds & species	



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# 8.

## **Guidelines on Preparing Financial Plans for Climate Change Adaptation in Mediterranean Coastal Areas**

These **Methodological Guidelines** are designed to help countries in the MedProgramme better navigate and secure funding for climate change adaptation in coastal areas. They offer practical advice on identifying, accessing, and mobilizing financial resources from various sources, including domestic budgets, international funds, and private sector investments.

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The guidelines answer **KEY QUESTIONS** about climate finance:

- **What counts as climate finance?**
  - **What is the current status of climate funding?**
  - **What financial channels are available for adaptation projects?**
  - **How much is the private sector investing in climate adaptation?**
  - **What financial tools can countries use to raise funds for climate action?**
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The guidelines also emphasize ways to increase local funding, such as **raising domestic budget allocations** or setting up **national climate funds**, and outline how to access global funding through **multilateral climate funds**. Additionally, they provide strategies for bridging financial gaps by preparing solid, investment-ready **coastal adaptation projects**.



**[The Methodological Guidelines](#)**

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# 9.

## **Engaging the Private Sector in Climate Adaptation Financing for the Mediterranean**

This **Assessment** examines how climate change affects key economic sectors in the Mediterranean, particularly in coastal areas. It highlights the importance of understanding climate risks and using tools like **cost-benefit analysis** to evaluate potential impacts.

The assessment also explores the **challenges and opportunities** for encouraging greater private-sector involvement in climate adaptation. It shares successful examples of **private-sector financing solutions**, projects, and lessons learned.

The final section offers **recommendations** to drive climate adaptation actions, create a supportive environment, and attract private investments at regional and national levels.



[Explore the Assessment of private sector document](#)

# SCCF Project Overview

## About SCCF

The Special Climate Change Fund (SCCF) was established in 2001 under the UN Framework Convention on Climate Change (UNFCCC) to finance activities, programs, and measures related to:

- climate change adaptation
- technology transfer and capacity building
- energy, transport, industry, agriculture, forestry and waste management
- economic diversification.

This fund complements other funding mechanisms, including those allocated to the Climate Change Focal Area of the Global Environmental Facility (GEF) and bilateral and multilateral funding, for the implementation of the Convention (decision 7/CP.7).

The GEF, acting as an operating entity of the Financial Mechanism, has been entrusted with the operation of the SCCF.

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<b>Title:</b>	Enhancing Regional Climate Change Adaptation in the Mediterranean Marine and Coastal Areas
<b>Duration:</b>	30 months
<b>Countries:</b>	Albania, Algeria, Libya, Montenegro, Morocco, Tunisia
<b>GEF financing amount:</b>	1,000,000.00 USD
<b>Co-financing amount:</b>	4,891,894.00 USD
<b>UNEP Division:</b>	Climate Change Division
<b>Executing agencies:</b>	UNEP Mediterranean Action Plan (MAP) PAP/RAC Plan Bleu/RAC GWP-Med
<b>Executing Partners</b>	PAP/RAC Plan Bleu/RAC GWP-Med

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