Terms of Reference
Preparation of Phase II WEFE Nexus Assessment for Morocco
in the framework of
the "GEF/UNEP Environment "Mediterranean Sea Programme (MedProgramme): Enhancing Environmental Security" and particularly its Child Project 2.2. and Child Project 2.1" implemented by the Global Water Partnership-Mediterranean (GWP-Med)

1. Background

The Water-Energy-Food-Ecosystems Nexus ("Nexus") approach has been introduced in the natural resources management agenda to promote water, energy, and food security while also preserving ecosystems and their functions. This approach aims to integrate and coordinate efforts across sectors, addressing potentially conflicting interests that arise when competing for scarce resources, while also leveraging existing opportunities and exploring new ones.

Despite the recognition of this approach among practitioners, policymakers often overlook the interconnectedness of the Nexus resources when formulating related policies. This has led to the emergence of complex challenges, as policies and strategies within the WEFE sectors are frequently developed independently. Consequently, this fragmented approach has resulted, in many cases, in the absence of common targets, overlapping responsibilities, and conflicting objectives, all of which have impeded the sustainable development of the Nexus sectors.

A WEFE Nexus Policy Dialogue was launched by GWP-Med in the Tangiers-Tetouan-Al Hoceima Region (TTA Region hereafter) in Morocco as part of the Nexus activities carried out in the Region under GEF UNEP/MAP Medprogramme Child Project 2.2. In this framework WEFE Nexus Assessment Phase I ('scoping phase') was prepared during 2022-2024 and allowed for the identification and analysis of key cross-sectoral interlinkages as well as concrete lines of action to capture synergies and address trade-offs towards the sustainable management of natural resources. This also included a Stakeholder Analysis and a Governance Analysis. Based on these findings, specific WEFE Nexus solutions were proposed to improve the current situation.

The WEFE Nexus Policy Dialogue has been effectively aligned since its inception with the Integrated Coastal Management (ICZM) process in TTA Region towards the preparation of a Regional Coastal Plan. In this context, the WEFE Nexus approach carried out during Phase I has been coordinated with the efforts of the Executing Partners, specifically PAP/RAC and Plan Bleu RAC, who have supported the Region in developing the draft Regional ICZM Plan/Schema Regional du Littoral. The primary objective was to enhance understanding of the root causes for coastal and marine pressures in the Region, which may stem from upstream dynamics beyond the legally defined coastal area, and assist relevant stakeholders identify sustainable solutions through consultative and participative processes. The work for the development of the Regional ICZM Plan/Schema Regional du Littoral is being continued under the coordination of PAP/RAC.

The preparation of Phase I WEFE Nexus Assessment has been a highly inclusive and collaborative process that involved multiple bilateral and multi-lateral consultations with representatives from various institutions, administrations, and other stakeholders organized throughout the assessment process. These

interventions have also encouraged the set-up of a WEFE Nexus Committee, which is led by Direction Regionale de l'Environnement (DRE TTA hereafter) as the Focal Point of Nexus activities in the TTA Region and aims to guide the WEFE Nexus Policy Dialogue while enhancing coordination among various institutions and administrations related to the WEFE sectors.

Drawing from the findings of the above analysis, Phase II WEFE Nexus Assessment performs a more in depth, quantitative analysis of solutions that could be envisaged to tackle critical trade-offs among the four WEFE Nexus dimensions and to further contribute to ICZM planning and enhanced resilience of the coastal zone

2. Description of the assignment

Aim

The aim of this assignment is to provide a detailed assessment of options for the optimization of farming/agricultural production and the associated water resources management and energy consumption, and the minimization of effects to ecosystems and socio-economic activities in the Loukkos Basin.

It will rely on strategic foresight tools, including modelling and scenarios planning to help formulate solutions that can enhance the region's agricultural output, reduce water consumption, and mitigate the negative impacts of diffuse pollution from agriculture, all contributing to the long-term health of the ecosystem and the livelihoods of local communities. The analysis will be carried out taking consideration of the upstream-downstream dynamics that characterize the area throughout the source-to-sea continuum and will be providing input for the new phase of work for the development of the Regional ICZM Plan/Schema Regional du Littoral that will be carried out in 2025 onwards.

Scope and Objectives

The Loukkos Basin, located in the TTA Region in Morocco, covers an area of 4,771 km^2 and has an average inflow of 1200 million cubic meters per year.[1] The river, along with its primary tributaries on the right bank, effectively drains a significant portion of the Moroccan Rif massif from which originates. Its hydraulic system includes the R'mel and Ouled Ogbane aquifers and the Loukkos alluvial aquifer. The Lower Loukkos complex is a marshland ecosystem situated along the Atlantic coast, home to several vulnerable species. Positioned near the city of Larache, at the mouth of the Oued Loukkos, the complex extends eastward and south-eastward through freshwater marshes toward the city of Ksar El Kbir, covering an area of 3,600 hectares that comprises a variety of habitats: coastal open waters, the mouth of the Oued Loukkos, intertidal sandy beaches, the estuarine surface waters of the permanently submerged Loukkos channel, and marsh and lake habitats.

The basin supplies water through Oued El Makhazine dam, built in 1979, with an actual storage capacity of 673 MCM, which allows irrigation, public water supply, energy production, as well as protection against flooding.

The agricultural sector, well developed and oriented towards the intensification of production in the irrigated plains, relies heavily on both water security and energy security..

The Loukkos large hydraulic perimeter was established with its initial infrastructure dating back to 1977 and is recognized as one of the most significant agricultural developments in Morocco.

---

1 https://www.researchgate.net/publication/360813141_Integrated_water_resources_management_in_the_Loukkos_basin_Morocco_an_approach_to_improve_resilience_under_climate_change_impact

As part of its Green Morocco Plan (PMV) and Generation Green 2020-2030 strategy, the Moroccan government is promoting a major project aimed at strengthening the agricultural development of the Loukkos basin through the mobilization of new surface water resources and the encouragement of modern irrigated agriculture. This is characterized by the interconnection of the Oued El Makhazine dam (near Ksar El Kébir) to the Dar Khrofa dam (Larache Province) and by the distribution of water by gravity in the related perimeters, the treatment of water before its use for irrigation and localized irrigation (micro-irrigation) in all farms that are part of the associated 21,000 ha. This initiative is planned for expansion to encompass a total of 32,000 ha as part of the hydro-agricultural development project. The project also aims to create jobs and improve local incomes and living conditions, and is expected to benefit around 30,000 farmers spread across ten rural communities in Larache province, 95% of whose farms are less than 5 ha in size.

Currently, the total area equipped and in the process of development encompasses approximately 47,210 hectares.

This area is categorized into several sectors based on the type of agricultural development and is organized as follows:

• R'mel and Drader Right Bank Sector: 15,496 hectares;

• Right Bank Plain Sector: 7,014 hectares;

• Ksar Kbir Plain and Low Hills Sector: 3,700 hectares;

• Dar Khroufa Sector (currently under development): 21,000 hectares.

These sectors are already benefiting from a range of modern infrastructure. However, there remain opportunities for further enhancement of the irrigation systems' efficiency. To this end, an ambitious initiative aimed at transitioning to drip irrigation techniques is currently in progress.

The Draft Integrated Water Resources Management Master Plan (PDAIRE)[2], prepared by the Water Basin Agency for the Loukkos (ABHL), provides an assessment of the hydraulic balance, the current status of water infrastructure, resources, needs, and their anticipated evolution up to 2050. This analysis, grounded in scientific research utilizing projections under various climate change scenarios, indicates that the hydraulic balance of the system is likely to experience a slight deficit beginning in 2040, which is expected to become more pronounced due to the impacts of climate change. The TTA region is particularly vulnerable to climate change, which is leading to a significant decrease and irregularity in water supplies, notably with regard to the spatio-temporal distribution of precipitation along with shifts in both minimum and maximum temperatures across seasons. These alterations are adversely affecting the availability of water resources, increasing competition among various sectors, and jeopardizing the ecological conditions essential for the growth of natural vegetation and crops. Consequently, this situation poses risks to the agricultural and food sectors and threatens the preservation of ecosystems.

This may have a direct impact on agricultural production, which is essential for the economy and society of the Region. Specifically, the total irrigation water demand in the TTA Region is projected to increase by more than 48% by 2050 compared to 2020 levels (PDAIRE). The majority of the irrigated area is concentrated in the Loukkos basin, which accounts for over 85% of the total potential. Since the implementation of the Green Morocco Plan, irrigated agriculture has been aligned with a model that promotes efficient water use to enhance production quality and quantity while minimizing water consumption from dams and groundwater resources. Nevertheless, despite ongoing efforts, the low

[2] Draft Integrated Water Resources Development Master Plan for the Loukkos, Tangier and Mediterranean Coastal Hydraulic Basins: https://abhl.ma/wp-content/uploads/2023/PDaire/Rapport%20PDAIRE%20FR.pdf

efficiency of certain irrigation systems continues to result in significant water losses. Additionally, the low levels of irrigation water tariffs and challenges related to cost recovery remain critical concerns.

Another important issue to consider relates to the important pressure exerted by agriculture on energy demand.

Irrigation in the Loukkos plain consumes a lot of energy for the supply of water from the Oued El Makhazene dam to the plain and gas for pumping water from the aquifers. The latter are overexploited given the reduced cost of pumping compared to the water from the dam.

The above-mentioned planned transfer of water from Oued El Makhazine to the Dar Khrofa dam requires significant energy resources, resulting in elevated energy costs. The Region is actively seeking options to secure the necessary energy at reduced costs by leveraging renewable energy sources, such as solar and wind power. This water transfer is part of a larger initiative known as the "water highway" project, which aims to provide potable water to the greater Tangiers area through the Dar Khrofa dam. Once the desalination station intended to support the Tangiers area becomes operational (anticipated in 2029), the water transferred from Oued El Makhazine to the Dar Khrofa dam will facilitate the irrigation of an additional 11,000 hectares of agricultural land through gravitational methods.

Despite the on-going water resources mobilization efforts and agricultural investments, it seems crucial to assess the basin's capacity to sustain food security and socio-economic development in the context of increasingly scarce water resources due to climate change, particularly given the prolonged drought conditions currently affecting the country, as well as issues related to water misuse and a growing energy dependence due to rising demands.Furthermore, targeted interventions to address diffuse pollution stemming from agricultural practices are needed, particularly in regions characterized by intensive farming, such as R'mel, which are starting to show indications of pollution related to the excessive use of fertilizers and pesticides.

In the irrigated plains of the Loukkos hydraulic perimeter agricultural intensification is also resulting in soil degradation and pollution, characterized by a decline in organic matter, reduced fertility, and increasing acidification. These changes are leading to decreased soil permeability and reduced water retention capacity, consequently diminishing productivity. Furthermore, in sloped areas such as hills and mountains, cultivation activities contribute to soil weakening and degradation through water erosion. Notably, the erosion rate within the Loukkos watershed is three times greater than the established tolerance threshold. As a result, significant soil degradation in the upstream regions can be expected, leading to a loss of fertility and a subsequent decline in land productivity, as well as possible sedimentation issues in the Oued El Makhazine dam.

The PDAIRE describes interventions to further develop the offer, manage water demand, preserve and protect water resources as well as ecosystems depending on water, manage extreme weather events (droughts and floods), and estimates the investments required for these at around 28.8 billion DH. These investments are aligned with national sectoral plans, which include agriculture, irrigation, potable water, treatment and reuse of wastewater, as well as regional plans and strategies, such as the Regional Development Program (PDR), the Regional Land Use Plan for the TTA Region (SRAT), among others.

In consideration of the aforementioned factors, and in alignment with the planning and intervention efforts undertaken by National and Regional authorities this assignment will assist decision-makers and relevant stakeholders in the Loukkos Basin in identifying integrated solutions for efficient water demand management that will also lead to optimization of:

- Farming and the resulting agricultural production
- Energy use

- Reduction of diffuse pollution from agriculture
- Preservation of ecological flows and protection of aquatic and terrestrial ecosystems
- Enhanced resilience towards climate variability and particularly extreme weather events, such as intense storms and droughts, which are occurring with increasing frequency and impacts, such as floods.

In agreement with GWP-Med the Consultant(s) will select and utilize appropriate decision-support tools and strategic foresight tools, including modelling, simulations and scenarios building to evaluate specific solutions, based on their costs and benefits. Potential solutions to be identified in the framework of this work may include a combination of engineered, nature-based, and governance approaches, which will be identified by considering the source-to-sea dynamics present in the basin, such as water and sediment flows, erosion rates, pollution sources, etc.

Consultations will be conducted as part of the WEFE Nexus Policy Dialogue to incorporate feedback from relevant stakeholders during the assessment preparation process (see point 3.3 below).

Consultation process and steering mechanism

Feedback from key stakeholders will be incorporated to identify and explore further opportunities that align this work with the region's needs, priorities, and context. To achieve this, a multi-stakeholder consultation will be conducted, involving representatives from Ministries, local and regional authorities, academia and research institutions, donors and implementing agencies, the private sector, and civil society. Relevant stakeholders will also be kept updated through regular communications and bilateral meetings as needed.

While GWP-Med is responsible for the implementation of the aforementioned activities, the Consultant(s) will support the GWP-Med Team in preparing information packages, presentations and information notes in Arabic and French, that effectively communicate the key findings and results of the Assessment to a variety of target audiences, including both technical and non-technical individuals, necessitating a tailored communication strategy.

Additionally, the Consultant(s) will provide support in the preparation and organization of a multi-stakeholder consultation meeting intended to be held during the preparation phase of the Phase II WEFE Nexus Assessment.

DRE TTA being the focal point of the MedProgramme CP 2.2. for Morocco, and with the support of the Department of Sustainable Development, will provide guidance soliciting the views and opinions of institutions that have responsibilities related to this assignment.

Data conservation and knowledge management

All data collected and produced during the preparation of the Assessment should be georeferenced and provided to GWP-Med and DRE TTA.

3. Tasks – Requested services

The Consultant(s) should implement the following tasks:

1) Preparation of an Inception Report (IR) to be consulted with GWP-Med for clearance and finalization.

The IR will entail the following:

(i) Assessment of information/data requirements and availability for the implementation of the assignment, leading to the identification of information gaps and suggested approaches to address these gaps.
(ii) Delimitation of the geographical extent of the study area; this needs to cover the Lukkos basin and the adjacent marine area that is directly or indirectly affected by the natural and socio-economic processes and activities in the Lukkos basin.
(iii) Detailed description of the suggested approach, methods and tools for the development of the Assessment.
(iv) A workplan with a timeline and an annotated Table of Contents for the final Report.
(v) Proposed outcome indicators to be used by planners and decision-makers in assessing the level to which the proposed measures, when implemented, will assist in achieving the outcomes envisaged in the list of solutions that will be developed under this assignment.

GWP-Med will enable communication with authorities and other stakeholders to assist, as appropriate and needed.

Once available, a copy of the final version of the IR will be sent to the DRE-TTA for follow-up.

2) Baseline data collection and analysis to support the formulation of interventions/solutions.

This process may begin in conjunction with steps 1.(i) and 1.(iii) and may necessitate verification missions to enhance the collection efforts.

3) Preparation of the WEFE Nexus Assessment Phase II

The WEFE Nexus Assessment Phase II will assess current status and opportunities for optimization of/in relation to:

a. Farming and the resulting agricultural production; different types of cultivations/crops in different parts of the basin will be assessed taking into consideration the types of land and the factors included in the list below.

b. Water availability (taking into consideration climate related considerations) and demand, as well as energy needs and consumption; different farming and irrigation practices will be assessed, predominately those that incorporate the use of novel technologies (precision agriculture).

c. Reduction of diffuse pollution from the use of fertilizers, pesticides and pathways from agricultural lands to water systems and ecosystems.

d. Water-related ecosystems vulnerability to farming and water management practices; in this case options to maintain ecosystem functions and preserve ecological flows will be assessed.

The solutions that will be proposed will take into consideration the increasing frequency and intensity of extreme weather events (e.g., floods, droughts, storms), and the need to improve resilience.

To do so the consultant will:

(i) Develop at least 3 scenarios (the decision on whether there will be additional scenarios will be taken during the inception period) based on and taking into consideration (i) the current situation and the objectives included in strategic National and Regional documents and linked to major projects/initiatives related to food/agricultural production and/or agricultural development in the

Loukkos basin (ii) climate change projections (iii) water/energy related interlinkages of the agricultural sector with other socio-economic sectors in the basin and the source-to-sea continuum. Scenarios will also define the outcome indicators that will be identified in the Inception report (see 1 (v) above) and were finally selected.

(ii) Develop a modelling framework that will simulate and assess/understand under each scenario the relationship among the following parameters in the Loukkos basin under different cultivations/crops and irrigation methods (additional parameters may be taken into consideration; the consultant will propose these as part of the inception report under 1(iii)):

(a) Crop productivity

(b) Water demand

(c) Water resources availability

(d) Energy consumption

(e) The effects on water quality and soil

(f) The resulting pollution and effects on water-depending ecosystems

This will be used to understand under each scenario the level of: agricultural production; availability of water and energy to satisfy agricultural and other socio-economic needs; pollution; effect to water-dependent ecosystems.

(iii) Define the limitations of the system in terms of food/agricultural production taking into consideration water resources and energy availability, ecosystems vulnerability and competing (in terms of resources) socio-economic activities.

(iv) Define a number of potential WEFE solutions (policy, management, technological etc.) under each scenario for the optimization of food/agricultural production and the associated water and energy consumption taking into consideration ecosystems vulnerability and competing (in terms of resources) socio-economic activities. Each solution should assess and propose the use of crop selection, irrigation technologies, energy sources (e.g. renewable vs. conventional energy) etc. Resilience against extreme weather events should be a criterion to be taken into consideration. In this regard, types of solutions to be considered should include infrastructure upgrades (e.g., flood protection, water storage), agricultural adaptations (e.g., drought-resistant crops, crop diversification), and nature-based solutions. Depending on the nature of the solutions, a budget estimate and/or description of the appropriate governance mechanism for the implementation of each validated solution will be prepared.

(v) Define benchmarks and cost-benefit analysis objectives, to compare different solutions and help decision-makers prioritize the most cost-effective solutions.

(vi) Prepare an Action Plan outlining WEFE Nexus solutions (selected by the authorities after consultation), actions for their implementation, timelines, process and outcome indicators, potential funding sources and mechanisms.

(vii) Integrate inputs gathered during the multi-stakeholder consultation process (see the point below) and development of the final Nexus Assessment Report.

4) Contribution to the multi-stakeholder Consultation process (to be facilitated by GWP-Med) by:

(i) Providing regular updates regarding the progress of the Assignment in a format suitable for communicating them to the responsible Moroccan authorities (in Arabic and French)

(ii) Preparing targeted inputs in the form of presentations, information sheets, and other suitable communication resources to be used during bilateral meetings with relevant stakeholders and for the purpose of enhancing visibility (in Arabic and French)

(iii) Assisting with the preparation and implementation of one multi-stakeholder consultation event organized by GWP-Med including: input on the draft agenda, preparation of presentations and interventions, facilitation of specific sessions, contribution to the drafting of the event's report, etc. (in French)

The Consultant(s) should plan for a minimum of five (5) missions in the TTA Region at various stages of the assignment's implementation for data collection and engagement with relevant stakeholders.

5) Effective transfer of the georeferenced and other data collected, and the outputs derived from the modelling exercise to GWP-Med and to DRE TTA. The Inception Report will help identify the specific requirements and the most suitable methods to accomplish this transfer in an efficient manner.

It is required that throughout the implementation of this assignment the consultant(s) closely liaise with the Senior Programme Officer at GWP-Med at a regular basis (bi-weekly).

The Consultants should use **modelling and simulation tools**, **decision-support systems etc.** that are compatible with those already used by the Moroccan authorities of the Region of Tangier Tetouan al Hoceima to carry out the assignment. These might also include Remote Sensing, Geographic Information Systems for the spatial presentation and geo-reference of the information included in the deliverables listed above. The related files and respective databases will be among the deliverables of the Consultants.

4. Reporting, deliverables and milestones

The Consultant(s) are expected to provide the following deliverables, which are directly related to the tasks outlined in detail under chapter 3, based on the below timeline (expressed in months after the contract is signed). The schedule for submission may be adjusted as necessary during the contract preparation period. All deliverables should be submitted in **French**, unless otherwise specified.

Deliverable		**Deadline expressed in months after contract signature***
1	▪ Inception Report	Month 2
2	▪ Draft Report 1, including: - Point 2 (Baseline data collection and analysis see above) - Point 3 (i, ii, iii, iv, v related to the Preparation of the WEFE Nexus Assessment Phase II see above)	Month 5
3	▪ Final Draft Report 1	Month 7
4	▪ Draft Report 2, including: - Point 3 (vi, vii related to the Preparation of the WEFE Nexus Assessment Phase II see above)	Month 7
5	▪ Final Draft Report 2	Month 9

6	▪ Draft Report 3 about: - Point 4 (multi-stakeholder consultation process) - Point 5 (effective transfer of data to GWP-Med)	Month 9
7	▪ Final WEFE Nexus Assessment Phase II, including related Executive summary (French, Arabic and English)	Month 10

* ***The specific deadline, including the day and month, will be detailed in the contract with the consultant, based on the date of the contract's signature.***

5. Payment modalities

Accomplishment of deliverable 1: 20% of total contract amount
Accomplishment of deliverables 2-3-4: 30% of total contract amount
Accomplishment of deliverables 5-6: 20% of total contract amount
Approval of final deliverables 7: 30% of the total contract amount

6. Contract price and duration

The maximum fee for this assignment is 128.000,00 USD. This amount includes all other costs, income taxes and any other amount payable or cost that may be required for the completion of the work/service, including VAT.
The overall duration of the contract will be for a maximum of **10 months** after the contract signature. Payments will be made upon acceptance and verification of the related deliverables, as laid out in section 6 "Reporting, deliverables, and Milestones"

7. Disqualification criteria ON/OFF

For details on the ON/OFF disqualification please refer to the Call for Offers

8. Selection Criteria (pass / fail)

Successful participants (Natural or Legal person or entity) must have:

Have average annual turnover for the last three financial years, at least equivalent to the maximum amount of this call. As supporting documentation, the applicant must provide their official Financial Statements, stamped, and signed by the legal representative of the company.
- be enrolled in one of the official professional or trade register kept in their country of registration
- a minimum duration of operation of ten (10) years. Proof to be provided by the related chamber (date of registration).
- a record of minimum 3 projects over the last 10 years of comparable nature and degree of complexity relevant to those required for this Contract.
- a record of minimum 3 projects over the last 10 years showing the capability to use modelling and simulation tools etc., required for the preparation of the specific Assessment.

Failure to comply with the above pass / fail requirements and provide relevant proof with the application is considered ground for exclusion.

9. Qualifications and experience

Participants in the call are required to have solid experience in developing and managing complex projects in the field related to the tasks described in the ToR.

This needs to be demonstrated in the Technical Offer to be submitted as part of the application.

A template for the Technical Offer form is available in the Call for Offers.

The Technical Offer Form consists of the following sections:

- Section 1: Expertise and work experience

- Section 2: Approach and Methodology

Regarding Section 1: Expertise and work experience:

The scope of work requires an interdisciplinary team of skilled experts with previous experience in activities similar to those that this assignment entails. The required qualifications for all experts to be engaged in this assignment are presented in Table 1 below.

The inclusion of experts so as the team responds to every area of expertise defined in the table below is mandatory.

If the qualifications of an expert cover the requirements of more than one area of expertise, that expert can be also proposed for these other areas.

Qualifications additional to the minimum requested per category will receive additional score under the evaluation process as described in the section Evaluation Process and Awarding Criterion.

In addition, the Applicant may propose – as they deem appropriate - additional experts covering other specific areas of expertise

Failure to provide the minimum required qualifications is considered ground for disqualification.

Important Note: The following information is crucial for evaluating the expertise of each candidate, using the corresponding weights detailed in Table 2. It is essential to complete the column located on the right side of Table 1 (Alignment with the criteria) and confirm the provision of the required information (YES/NO) indicating also the section in the Technical Offer where the specific information is located (Page and section in the page(s)). Failure to complete this column will lead to disqualification of the Technical Offer. Please note that all the "Required" criteria are mandatory, while desired criteria are optional but can enhance the overall score of your Offer.

Table 1 – Required qualifications for the Team of Experts

Expert #	Area of expertise	Minimum Qualifications	Alignment with the criteria: Select Yes or No AND indicate the Page in your offer, and section in the page(s), where the respective information is located.
1	**Senior Environmental Expert / Team Leader**	A Master's Degree in Environmental or Civil Engineering, Environmental Science or management, Biology, Chemistry, Agricultural Engineer, Water resources management, Hydrology or a directly related field **(ON/OFF)**	☐ **YES** ☐ **NO**

		Excellent oral and written communication skills in Arabic, French and English **(ON/OFF)**	☐ **YES** ☐ **NO**
		A proven track of 10 years of professional experience in the field of environmental and natural resources management, environmental policies, ecosystem services or other relevant topic (**Required/Evaluated**)	**Page(s):** **Section(s):**
		A proven track record of two (2) projects relevant to Strategic Environmental Assessment (SEA), Environmental Impact Assessments (EIA), environmental and natural resources management and/or environmental policies, or other relevant topic **(Required/Evaluated)**	**Page(s):** **Section(s):**
		Strong leadership skills with the ability to lead a team of experts and effectively manage project activities: A proven track record as team leader for two (2) projects of similar complexity over the last 10 years **(Required/Evaluated)**	**Page(s):** **Section(s):**
		A proven track record of two (2) successful assignments or projects in Morocco that are directly relevant to environmental, natural resources and/or ecosystems management **(Desired/Evaluated)**	**Page(s):** **Section(s):**
2	**Hydrologist/ Hydrogeologist**	A Master's degree (MSc or equivalent) in Hydrology, Water Resources Management, or a directly related field **(ON/OFF)**.	☐ **YES** ☐ **NO**
		Excellent oral and written communication skills in both French and Arabic **(ON/OFF).**	☐ **YES** ☐ **NO**
		A proven track record of 7 years of professional experience in the field of hydrological modeling, water resources management or directly related field (**Required/Evaluated**).	**Page(s):** **Section(s):**
		A proven track record of two (2) assignments developing or using hydrological models at River Basin level (**Required/Evaluated**).	**Page(s):** **Section(s):**

		A proven track record of one (1) assignment or project in Morocco using hydrological models **(Desired/Evaluated)**	**Page(s):** **Section(s):**
3	**Environmental / Pollution Modelling Expert**	A Master's degree in Environmental Science, Environmental Engineering, Ecology, Pollution control, Chemistry, Chemical engineering or a related field **(ON/OFF)**	☐ **YES** ☐ **NO**
		Excellent oral and written communication skills in English and French **(ON/OFF).**	☐ **YES** ☐ **NO**
		A proven track record of 7 years of professional experience in environmental/pollution modelling, including pollution control, water quality management or other relevant topic (**Required/Evaluated**).	**Page(s):** **Section(s):**
		A proven track record of two (2) assignments developing or using pollution models **(Required/Evaluated).**	**Page(s):** **Section(s):**
		A proven track record of one (1) assignment to assess pollution impacts on the environment and society **(Desired/Evaluated).**	**Page(s):** **Section(s):**
4	**Agriculture Expert**	A Master's degree in the field of Agriculture, Agriculture engineering, Irrigation, Soil Science or a related field. **(ON/OFF).**	☐ **YES** ☐ **NO**
		Excellent oral and written communication skills in Arabic and French **(ON/OFF).**	☐ **YES** ☐ **NO**
		A proven track record of 7 years of professional experience in the field of Agriculture, sustainable agricultural/irrigation practices, agriculture-environment Soil Management or other relevant topic **(Required/Evaluated).**	**Page(s):** **Section(s):**
		A proven track record of two (2) projects/assignments relevant to the design/management of different types of irrigation systems (e.g., drip irrigation, sprinkler systems, surface irrigation) or sustainable irrigation,	**Page(s):** **Section(s):**

		crop productions techniques, soil management or other relevant topic **(Required/Evaluated).**	
		A proven track record of one (1) assignment/project relevant to precision agriculture or modern irrigation technologies, such as automated irrigation systems, sensor-based irrigation (e.g., soil moisture sensors, weather stations), and smart irrigation technologies **(Desired/Evaluated).**	**Page(s):** **Section(s):**
5	**Climate Change Expert**	A Master's degree (MSc) in Climate Science, Environmental Science, Environmental Engineering, Water Resources management, or a related field **(ON/OFF)**.	☐ **YES** ☐ **NO**
		Excellent oral and written communication skills in Arabic and French **(ON/OFF).**	☐ **YES** ☐ **NO**
		A proven track record of 5 years of experience in climate change adaptation and resilience, particularly in sectors such as agriculture, water resources, ecosystems, infrastructure or other relevant topic **(Required/Evaluated)**.	**Page(s):** **Section(s):**
		A proven track record of two (2) projects relevant to the development of climate adaptation plans, resilience strategies, climate-proofing measures for infrastructure, ecosystems and communities or other relevant topic **(Required/Evaluated).**	**Page(s):** **Section(s):**
		A proven track record of one (1) assignment/project relevant to ecosystem-based adaptation (EbA) strategies for building resilience, such as reforestation, wetland restoration, sustainable land management, and integrated watershed management **(Desired/Evaluated).**	**Page(s):** **Section(s):**

6	**Energy expert**	A University degree in the field of Engineering or Energy or a directly related field **(ON/OFF).**	☐ **YES** ☐ **NO**
		Excellent oral and written communication skills in Arabic and French **(ON/OFF).**	☐ **YES** ☐ **NO**
		A proven track record of 5 years of professional experience in the field of energy policy development, energy management, or energy strategy **(Required/Evaluated).**	**Page(s):** **Section(s):**
		A proven track record of two (2) assignments/projects relevant to energy transition or energy use efficiency in the water or agriculture sectors **(Required/Evaluated).**	**Page(s):** **Section(s):**
		A proven track record of one (1) assignment /project related to policy analysis tools and frameworks (e.g., cost-benefit analysis, energy modelling, scenario planning) to assess policy impacts on energy systems and the economy **(Desired/Evaluated).**	**Page(s):** **Section(s):**
7	**Earth Observation / GIS and remote sensing Expert**	A Master's degree (MSc or equivalent) in Earth Observation, Remote Sensing, Geographic Information Systems (GIS)/Science or relevant land/IT discipline, or a directly related field **(ON/OFF).**	☐ **YES** ☐ **NO**
		Excellent oral and written communication skills in English and French **(ON/OFF).**	☐ **YES** ☐ **NO**
		A proven track record of 5 years professional experience in the field of Remote Sensing, GIS, Spatial Analysis and Modelling **(Required/Evaluated).**	**Page(s):** **Section(s):**
		A proven track record of three (3) assignments or projects that are directly relevant to land cover /land use and/or water resources/environment management using Remote Sensing and GIS **(Required/Evaluated).**	**Page(s):** **Section(s):**
8	**Socio-economic and Policy Expert**	At least a University degree in Economics, Political Sciences, Rural	☐ **YES** ☐ **NO**

		Development, or any other related field **(ON/OFF).**	
		Excellent oral and written communication skills in Arabic and French **(ON/OFF).**	☐ **YES** ☐ **NO**
		A proven track record of 5 years of relevant professional working experience in the field of socio-economic analysis, environmental economics, policy or other relevant topic **(Required/Evaluated).**	**Page(s):** **Section(s):**
		A proven track record of three (3) assignments/projects relevant to socio-economic and policy analysis in the environment and/or water sector or other directly related topic **(Required/Evaluated).**	**Page(s):** **Section(s):**
		Minimum 1 assignment/project in Morocco relevant to socio-economic and policy analysis in the environment and/or water sector **(Desired/Evaluated).**	**Page(s):** **Section(s):**

10. Evaluation Process and Awarding Criterion

The Award criterion is the **most economically advantageous tender considering the best price / quality ratio.** Offers that meet the exclusion grounds and selection criteria will undergo further evaluation, focusing on the requirements outlined in the "Qualification and Experience" section, as follows:

Table 2 – Weight of criteria – required and desired

(1) Criterion	**(2) Weighting (w)**	**(3) Points of criterion (c)**	**(4) Score= (2) x (3)**
Section 1: Expertise and work experience	**80% total**		
Senior Environmental Expert / Team Leader	***15%***		
A Master's Degree in Environmental or Civil Engineering, Environmental Science or management, Biology, Chemistry, Agricultural Engineer, Water resources management, Hydrology or a directly related field **(ON/OFF)**	**ON/OFF**		
Excellent oral and written communication skills in Arabic, French and English **(ON/OFF)**	**ON/OFF**		
A proven track of 10 years of professional experience in the field of environmental and natural resources management,	**4%**		

environmental policies, ecosystem services or other relevant topic (**Required/Evaluated**)			
A proven track record of two (2) projects relevant to Strategic Environmental Assessment (SEA), Environmental Impact Assessments (EIA), environmental and natural resources management and/or environmental policies, or other relevant topic **(Required/Evaluated)**	**4%**		
Strong leadership skills with the ability to lead a team of experts and effectively manage project activities: A proven track record as team leader for two (2) projects of similar complexity over the last 10 years **(Required/Evaluated)**	**4%**		
A proven track record of two (2) successful assignments or projects in Morocco that are directly relevant to environmental, natural resources and/or ecosystems management **(Desired/Evaluated)**	**3%**		
Hydrologist/Hydrogeologist	***10%***		
A Master's degree (MSc or equivalent) in Hydrology, Water Resources Management, or a directly related field **(ON/OFF)**.	**ON/OFF**		
Excellent oral and written communication skills in both French and Arabic **(ON/OFF).**	**ON/OFF**		
A proven track record of 7 years of professional experience in the field of hydrological modeling, water resources management or directly related field (**Required/Evaluated**).	**3%**		
A proven track record of two (2) assignments developing or using hydrological models at River Basin level (**Required/Evaluated**).	**4%**		
A proven track record of one (1) assignment or project in Morocco using hydrological models **(Desired/Evaluated)**	**3%**		
Environmental/Pollution Modelling Expert	***10%***		
A Master's degree in Environmental Science, Environmental Engineering, Ecology, Pollution control, Chemistry, Chemical engineering or a related field **(ON/OFF)**	**ON/OFF**		
Excellent oral and written communication skills in English and French **(ON/OFF).**	**ON/OFF**		
A proven track record of 7 years of professional experience in environmental/pollution modelling, including pollution control, water quality management or other relevant topic (**Required/Evaluated**).	**3%**		
A proven track record of two (2) assignments developing or using pollution models **(Required/Evaluated).**	**4%**		
A proven track record of one (1) assignment to assess pollution impacts on the environment and society **(Desired/Evaluated).**	**3%**		

Agriculture Expert	***10%***		
A Master's degree in the field of Agriculture, Agriculture engineering, Irrigation, Soil Science or a related field. **(ON/OFF).**	**ON/OFF**		
Excellent oral and written communication skills in Arabic and French **(ON/OFF).**	**ON/OFF**		
A proven track record of 7 years of professional experience in the field of Agriculture, sustainable agricultural/irrigation practices, agriculture-environment Soil Management or other relevant topic **(Required/Evaluated).**	**3%**		
A proven track record of two (2) projects/assignments relevant to the design/management of different types of irrigation systems (e.g., drip irrigation, sprinkler systems, surface irrigation) or sustainable irrigation, crop productions techniques, soil management or other relevant topic **(Required/Evaluated).**	**4%**		
A proven track record of one (1) assignment/project relevant to precision agriculture or modern irrigation technologies, such as automated irrigation systems, sensor-based irrigation (e.g., soil moisture sensors, weather stations), and smart irrigation technologies **(Desired/Evaluated).**	**3%**		
Climate Change Expert	***8%***		
A Master's degree (MSc) in Climate Science, Environmental Science, Environmental Engineering, Water Resources management, or a related field **(ON/OFF)**.	**ON/OFF**		
Excellent oral and written communication skills in Arabic and French **(ON/OFF).**	**ON/OFF**		
A proven track record of 5 years of experience in climate change adaptation and resilience, particularly in sectors such as agriculture, water resources, ecosystems, infrastructure or other relevant topic **(Required/Evaluated)**.	**3%**		
A proven track record of two (2) projects relevant to the development of climate adaptation plans, resilience strategies, climate-proofing measures for infrastructure, ecosystems and communities or other relevant topic **(Required/Evaluated).**	**4%**		
A proven track record of one (1) assignment/project relevant to ecosystem-based adaptation (EbA) strategies for building resilience, such as reforestation, wetland restoration, sustainable land management, and integrated watershed management **(Desired/Evaluated).**	**1%**		
Energy Expert	***7%***		
A University degree in the field of Engineering or Energy or a directly related field **(ON/OFF).**	**ON/OFF**		

Excellent oral and written communication skills in Arabic and French. **(ON/OFF).**	**ON/OFF**		
A proven track record of 5 years of professional experience in the field of energy policy development, energy management, or energy strategy **(Required/Evaluated).**	**3%**		
A proven track record of two (2) assignments/projects relevant to energy transition or energy use efficiency in the water or agriculture sectors **(Required/Evaluated).**	**3%**		
A proven track record of one (1) assignment /project related to policy analysis tools and frameworks (e.g., cost-benefit analysis, energy modelling, scenario planning) to assess policy impacts on energy systems and the economy **(Desired/Evaluated).**	**1%**		
Earth Observations/GIS and remote sensing Expert	***10%***		
A Master's degree (MSc or equivalent) in Earth Observation, Remote Sensing, Geographic Information Systems (GIS)/Science or relevant land/IT discipline, or a directly related field **(ON/OFF).**	**ON/OFF**		
Excellent oral and written communication skills in English and French **(ON/OFF).**	**ON/OFF**		
A proven track record of 5 years professional experience in the field of Remote Sensing, GIS, Spatial Analysis and Modelling **(Required/Evaluated).**	**4%**		
A proven track record of three (3) assignments or projects that are directly relevant to land cover /land use and/or water resources/environment management using Remote Sensing and GIS **(Required/Evaluated).**	**6%**		
Socio-Economic and Policy Expert	***10%***		
At least a University degree in Economics, Political Sciences, Rural Development, or any other related field **(ON/OFF).**	**ON/OFF**		
Excellent oral and written communication skills in Arabic and French **(ON/OFF).**	**ON/OFF**		
A proven track record of 5 years of relevant professional working experience in the field of socio-economic analysis, environmental economics, policy or other relevant topic **(Required/Evaluated).**	**3%**		
A proven track record of three (3) assignments/projects relevant to socio-economic and policy analysis in the environment and/or water sector or other directly related topic **(Required/Evaluated).**	**4%**		
Minimum 1 assignment/project in Morocco relevant to socio-economic and policy analysis in the environment and/or water sector **(Desired/Evaluated).**	**3%**		

Section 2: Approach and Methodology	20% of total		
Approach to the requested Assignment: detailed description of the methodology how the Participant will achieve all objectives and tasks and deliver all outputs as described in the Terms of Reference of the assignment, keeping in mind the appropriateness to local conditions.	**15%**		
Risks / Mitigation Measures: description of the potential risks for the implementation of this assignment that may impact achievement and timely completion of expected results as well as their quality. Describe measures that will be put in place to mitigate these risks.	**5%**		

Failure to provide the minimum required qualifications is considered ground for disqualification.

Scoring for each evaluated section will be made as following:

Section 1 – Expertise and work experience: score starts at 100 points (when minimum requirements are met) and can reach 150 points depending on the description of the participant and the number of projects implemented in excess of those required as a minimum. (100p Base +10p for extra criteria over base up to 50 additional points)

Section 2 – Approach and Methodology: score starts at 100 points and can reach 150 points depending on the length, detail, depth, and structure of the information provided.

Each Section/evaluation criterion is evaluated autonomously. The final scoring of each evaluation criterion is the outcome of its scoring multiplied by the corresponding weighting factor. The overall score of the technical offer is the sum of the final scoring of all the Sections/evaluation criteria.

The overall score of the technical offer is calculated on the basis of the following formula:

Bi = w1 x c1 + w2 x c2 +……

For the overall score which will determine the ranking of offers, technical evaluation will be weighted with 80%, and the financial offer with 20%.

The final listing of the most advantageous offers will be made on the basis of the following formula:

Λi = 0.8* (Bi/Bmax) + 0.2 * (Kmin/Ki).

Where:

- Bmax: the max score received by the best of the technical offers received
- Bi: the score of the technical offer
- Kmin: The cost of the financial offer with the minimum price offered.
- Ki: The cost of the financial offer

The most advantageous offers is the one with the greater value of Λ.

In case of equality of overall scores, the winning proposal is the one whose corresponding technical proposal received the highest rating.

11. Monitoring and Progress Controls

Mr. Dimitris Faloutsos, Deputy Regional Coordinator and Ms. Barbara Tomassini, Senior Programme Officer at GWP-Med, will be providing oversight and guidance from the side of the Project Team.

Coordination meetings between the consultant and the Project Team shall be scheduled on a bi-weekly basis in order to effectively monitor the progress pertaining to the workplan that was submitted with the Inception Report. The rendering of services shall be executed, and completion thereof shall be

determined, upon the satisfaction and approval of the deliverables by the Project Manager and GWP-Med Executive Secretary

12. Place of Performance

The tasks will be carried out from a place of the Consultant's preference. Missions for the consolidation of data (verification missions) and for consultation purposes will be conducted (all in Morocco).

13. Terms and Conditions

- **Language**

The language of the key deliverables/outputs is French English. Specific materials and communication packages will also be prepared in Arabic, as previously described.

- **Data and information**

The Consultant(s) is responsible to collect all information and data necessary for the completion of this assignment. Missing information (from any side) would not be considered as eligible reason for not completing the tasks. GWP-Med can assist in communicating with relevant institutions and stakeholders to verify the availability of needed data or information.

- **Submission of data, reports and other material produced**

All primary data, reports, and other documentation produced during this assignment shall be made available to GWP-Med and to the relevant institutions in electronic format. All data acquired, and products developed during the assignment will be in the ownership of the Project and cannot be used by the Consultant and its team without prior written permission.

- **Cooperation requirements**

The Consultant is expected to work closely with GWP-Med and the beneficiaries (visited during the consultation missions).

- **Review and quality assurance**

A thorough evaluation of the Consultant's work conducted during the course of the assignment implementation, as well as a comprehensive review of the deliverables, may be conducted by an independent external expert or team of experts. The Consultant is expected to thoroughly consider and incorporate any relevant observations or recommendations provided by the reviewer(s) into the final versions of the deliverables.

- **Public consultations / meetings**

The responsibility for organizing any required workshops or working meetings will be shared between the Consultant(s) and the Project Team. The Consultant(s) shall be responsible for: preparation of working material, technical specifications etc. ensuring participation of the key team members as required, preparation of minutes etc. The Project Team will be responsible for: preparation of agenda, invitations, distributing the invitations and enabling participation.