



**Water and
Environment Support**
in the ENI Southern Neighbourhood region

COMPONENT 2: WATER USE EFFICIENCY

PROPOSED ACTIVITIES AT REGIONAL LEVEL



COMPONENT 2: FIRST DRAFT WORK PROGRAMME REGIONAL LEVEL



**Water and
Environment Support**
in the ENI Southern Neighbourhood region

Topic	Sub-Topic	Proposed activity
Topic 1: Assessment and Estimation of Water Use (per sector) Topic 2: Water Efficiency Gains at Decentralised Level Topic 3: Water Resources Valuation, Cost Recovery, Affordability of water services	Subtopic 2.2: Non-Revenue Water (NRW) Management	Training on NRW (including the role of GIS in facilitating NRW management) in addition to ST <ul style="list-style-type: none"> - measures to reduce physical and commercial losses - non-structural (soft) solutions for NRW improvements - role of information systems & GIS in facilitating NRW management.
Study Tour (ST)		This training could be combined with ST to other countries in the Med more advanced in this field.
Peer to Peer (P2P)		Proposed (Subject to be determined)
Linkage with National activities		Confirmed: Egypt, Israel and Palestine Proposed but not yet confirmed: Algeria & Jordan

COMPONENT 2: FIRST DRAFT WORK PROGRAMME REGIONAL LEVEL



**Water and
Environment Support**
in the ENI Southern Neighbourhood region

Topic	Sub-Topic	Proposed activity
Topic 2: Water Efficiency Gains at Decentralised Level Topic 3: Water Resources Valuation, Cost-Recovery and Affordability of Water Services	Subtopic 2.5: Wastewater Treatment for reuse	Capacity Building on Wastewater Treatment for reuse: <ul style="list-style-type: none"> - Best low-cost wastewater treatment technologies in small villages/industries and for tertiary treatment for reuse, - assessment of impacts of TWWR, and recommended mitigation measures. - Financial management options of small WWTPs in rural zones - Incentives to improve attractiveness of reuse
Study Tour (ST)		This training could be linked with a Study tour also showing indirect reuse in Jordan
Linkages with regional processes/activities		This activity is linked with Demos in PS, Oxfam from PS
Linkage with National activities		Confirmed: Lebanon



COMPONENT 2: FIRST DRAFT WORK PROGRAMME REGIONAL LEVEL



**Water and
Environment Support**
in the ENI Southern Neighbourhood region

Topic	Sub-Topic	Proposed activity
Topic 2: Water Efficiency Gains at Decentralised Level Topic 4: Legal and Regulatory Aspects of Mainstreaming Water Use Efficiency in the National and Regional Frameworks	Subtopic 2.3 Water Demand Management (WDM)	Capacity building on WDM & methods of water conservation; <ul style="list-style-type: none"> - WDM concept and tools - BPs for reducing both urban demands amongst large consumers and irrigation demand. - role of data and information systems - institutional responsibilities for water conservation - Role of private sector, education and religions in changing customers' behaviour. - Cost effectiveness analysis of WDM measures; <p>This training is closely linked to the next training.</p>
Peer to Peer (P2)		Proposed - Topics of the P2P can be selected from the above (to be determined)
Linkage with National activities		Confirmed: Israel and Morocco Proposed but not yet confirmed: two activities for Algeria and Jordan



COMPONENT 2: FIRST DRAFT WORK PROGRAMME REGIONAL LEVEL



**Water and
Environment Support**
in the ENI Southern Neighbourhood region

Topic	Sub-Topic	Proposed activity
Topic 2: Water Efficiency Gains at Decentralised Level	Subtopic 2.1: Non-Conventional Water Resources (NCWR)	<p>Capacity Building on NCWR focusing on water harvesting including through retention & aquifer recharge with storm water</p> <p>Zoom into management of irrigation demands through the use of NCWR. Focus on:</p> <ul style="list-style-type: none"> - application of rainwater and floodwater harvesting in irrigation - WH categories and available techniques and storage options - considerations in the selection of suitable sites and techniques including their applicability and viability. - importance of the awareness and extension/technical support
Linkages with regional processes/activities		Linked with SWIM-1 demo project - Improware
Linkage with National activities		<p>Confirmed: Israel & Lebanon</p> <p>Proposed but not yet confirmed: Jordan</p>



COMPONENT 2: FIRST DRAFT WORK PROGRAMME REGIONAL LEVEL



**Water and
Environment Support**
in the ENI Southern Neighbourhood region

Topic	Sub-Topic	Proposed activity
Topic 3: Water Resources Valuation, Cost-Recovery and Affordability of Water Services	Subtopic 3.2: Water Accounting & Valuation	<p>Training on water accounting as a mean to capture the overall "value" of water resources and the cost for securing their safe use within the economy.</p> <p>Training on</p> <ul style="list-style-type: none"> - key concepts and tools in water accounting and auditing - benefits of the water accounting - demonstration of the practical use of water accounting through countries' case studies - water accounting, valuing and to some extent pricing exercises, approaches and tools.
Linkages with regional processes/activities		<p>In line with the Water Financing Strategy of the UfM</p> <p>It will refer to EU or UN's standard System of Environmental Economic Accounting for water (SEEA-water).</p>
Linkage with National activities		Partial linkage with one of the activities confirmed by Morocco



COMPONENT 2: FIRST DRAFT WORK PROGRAMME REGIONAL LEVEL



**Water and
Environment Support**
in the ENI Southern Neighbourhood region

Topic	Sub-Topic	Proposed activity
Topic 5: Enhancing Water Efficiency and Productivity in Agriculture"	Subtopic 5.2: WEFE Nexus	<p>Training on the practical application of the WEFE nexus and related policies and regulations.</p> <ul style="list-style-type: none"> - Water-Energy-Food (WEF) Security Nexus approach, methodology & benefits - inter-sectoral linkages including the nexus from the ecosystem's perspective - linkage with the SDGs, - hindrances to and opportunities from stronger integration across sectors, - tools for analyzing the WEFE nexus, - Practical solutions (policies, technologies, actions, economic instruments) for reconciling the different sectors' needs
Linkages with regional processes/activities		Activity supports the UfM water agenda on the nexus; namely the output related to the "Knowledge shared and capacity built on Nexus methodologies, policies and technologies".
Linkage with National activities		Partial linkage with activities confirmed by EG, PS & TN



COMPONENT 2: FIRST DRAFT WORK PROGRAMME REGIONAL LEVEL



**Water and
Environment Support**
in the ENI Southern Neighbourhood region

Topic	Sub-Topic	Proposed activity
Topic 2: Water Efficiency Gains at Decentralised Level Topic 5: Enhancing Water Efficiency and Productivity in Agriculture"	Subtopic 5.1: Water Use Efficiency in Agriculture	Training(s) of WUAs on optimal irrigation management and practices using appropriate irrigation methods for improved irrigation efficiency and soil fertility, and highlighting the benefits of using treated wastewater and rainwater harvesting.
Study Tour (ST)		This training could be linked with a Study tour
Linkages with regional processes/activities		Activity supports the UfM water agenda on the nexus; namely the output related to the "Knowledge shared and capacity built on Nexus methodologies, policies and technologies".
Linkage with National activities		Linkage with activities confirmed by EG, PS & TN



COMPONENT 2: FIRST DRAFT WORK PROGRAMME REGIONAL LEVEL



**Water and
Environment Support**
in the ENI Southern Neighbourhood region

Topic	Sub-Topic	Proposed activity
Horizontal: PPP		<p>'- Capacity building on PPP, green/blue economy entrepreneurship and banking for the water/wastewater sector</p> <ul style="list-style-type: none"> - PSP models including micro PSP, - PSP advantages/risks/applicability/enabling conditions (incl. tariff structuring) - Role of the regulator, etc. - Strategies for cost recovery in water and wastewater sectors, and tools for the evaluations of costs. - Procedures/Mechanisms for mobilisation of funds to put in place tangible projects in synergy with other EU initiatives
	Peer to Peer (P2P)	Proposed - Topics of the P2P can be selected from the above (to be determined)
	Linkages with regional processes/activities	Activity linked with UfM actions for water
	Linkage with National activities	<p>Linkage with activities confirmed by Egypt & Morocco</p> <p>Linkage with activities proposed but not confirmed by Algeria</p>





**Water and
Environment Support**
in the ENI Southern Neighbourhood region

COMPONENT 2: WATER USE EFFICIENCY

PROPOSED ACTIVITIES AT NATIONAL LEVEL



COMPONENT 1: FIRST DRAFT WORK PROGRAMME NATIONAL LEVEL



**Water and
Environment Support**
in the ENI Southern Neighbourhood region

Algeria: The two activities have not yet been selected

Dimension	Topic	Sub-Topic	Proposed Activity
Technical Assistance	Topic 1: Water Use Assessment, estimation Topic 2: Water Efficiency Gains at Decentralised Level Topic 3: Water Resources Valuation, Cost Recovery, Affordability of water services	Subtopic 2.2: Non-Revenue Water (NRW) Management	Conduct a diagnosis for the performance of NRW in a pilot utility and develop a plan for NRW improvements focusing on minimum cost of interventions with fast investment paybacks.
Technical Assistance or Capacity Building	Topic 1: Water Use Assessment, estimation Topic 2: Water Efficiency Gains at Decentralised Level	Subtopic 2.3: Water Demand Management (WDM)	Potential of Water use efficiency and water saving in municipal water
Technical Assistance	Topic 3: Water Resources Valuation, Cost Recovery, Affordability of water services	Subtopic 3.1: Tariff	Development of a tax system for self-supplied users (industries, tourism facilities) in the context of IWRM
Technical Assistance	Horizontal: PPP and access to finance		Strengthen the Private Sector involvement in water infrastructure with emphasis on wastewater treatment plants. Replicate the experience of SWIM-H2020 SM in Lebanon on the same topic

COMPONENT 1: FIRST DRAFT WORK PROGRAMME NATIONAL LEVEL



**Water and
Environment Support**
in the ENI Southern Neighbourhood region

Egypt

Dimension	Topic	Sub-Topic	Proposed Activity
Technical Assistance	Topic 1: Water Use Assessment, estimation Topic 2: Water Efficiency Gains at Decentralised Level Topic 3: Water Resources Valuation, Cost Recovery, Affordability of water services	Subtopic 2.2: Non-Revenue Water (NRW) Management	Strengthen the water utilities capacities to manage/reduce NRW and detect leakage: Conduct a diagnosis for the performance of NRW in a pilot utility and develop a plan of action for NRW improvements focusing on minimum cost of interventions with fast investment paybacks
Technical Assistance	Topic 2: Water Efficiency Gains at Decentralised Level Topic 5: Enhancing Water Efficiency and Productivity in Agriculture Horizontal: PPP & Access to Finance	Subtopic 5.1: Agriculture Water Use Efficiency	Assist Egypt in the preparation of a framework related to PPP to provide opportunities to create guarantees for the banking system, allowing the private sector to be involved and improve "water network management and resources efficiency (on-farm and main network)" i.e. modern irrigation.



COMPONENT 1: FIRST DRAFT WORK PROGRAMME NATIONAL LEVEL



**Water and
Environment Support**
in the ENI Southern Neighbourhood region

Israel

Dimension	Topic	Sub-Topic	Proposed Activity
Technical Assistance	Topic 3: Water Resources Valuation, Cost Recovery, Affordability of water services	Subtopic 3.1: Tariffs Subtopic 2.2: Non-Revenue Water (NRW) Management	Examination of water tariffs for agriculture and effectiveness methods of capital recognition for water corporations. Review current procedures in collection and billing and develop incentives or disincentives for increasing the payment by the customers based on EU practices and local context (focus on domestic sector)
Technical Assistance	Topic 2: Water Efficiency Gains at Decentralised Level	Subtopic 3.3: Non Conventional Water Resources - Water retention	Storm water management and Natural Water Retention Measures: Assess the potential in selected community/catchment/subcatment (tbd). Inventorise/Map potential retention/detention areas and propose management plan for the utilisation of the retained/harvested volumes



COMPONENT 1: FIRST DRAFT WORK PROGRAMME NATIONAL LEVEL



**Water and
Environment Support**
in the ENI Southern Neighbourhood region

Jordan: The two activities have not yet been selected

Dimension	Topic	Sub-Topic	Proposed Activity
Technical Assistance	Topic 1: Water Use Assessment, estimation Topic 2: Water Efficiency Gains at Decentralised Level Topic 4: Legal and Regulatory aspects of mainstreaming WUE	Subtopic 2.3: Water Demand Management (WDM)	Review & modify WEAP model of AZB, to enable assessing all the components of the water balance. Quantify unmet demands in the basin and propose measures to reduce water use/augment water supply Develop criteria for selection of measures including cost effectiveness and select preferred measures. Define relevant policy targets accordingly.
Technical Assistance & Capacity Building	Topic 1: Water Use Assessment, estimation Topic 2: Water Efficiency Gains at Decentralised Level Topic 3: Water Resources Valuation, Cost Recovery, Affordability of water services	Subtopic 2.2: Non-Revenue Water (NRW) Management	Conduct a diagnosis for the performance of Non-Revenue Water (NRW) in a pilot utility and develop a plan for NRW improvements focusing on minimum cost of interventions with fast investment paybacks.
Technical Assistance	Topic 4: Legal and Regulatory aspects of mainstreaming WUE	Subtopic 2.1: NCWR	Support the Greater Amman Municipality (GAM) in its ongoing efforts to increase water efficiency and introduce incentives for the reuse of greywater and water harvesting

COMPONENT 1: FIRST DRAFT WORK PROGRAMME NATIONAL LEVEL



**Water and
Environment Support**
in the ENI Southern Neighbourhood region

Lebanon

Dimension	Topic	Sub-Topic	Proposed Activity
Technical Assistance	Topic 1: Water Use Assessment, estimation Topic 2: Water Efficiency Gains at Decentralised Level	Subtopic 2.1: Non-Conventional Water Resources	<p>Explore the potential of Natural Water Retention Measures (NWRM) (at the national level): Assessment of the potential and Demarcation of retention areas along priority wadis of concern for use in agriculture.</p> <p>National study to be integrated to the National strategy under revision at MoEW.</p>
Capacity Building	Topic 2: Water Efficiency Gains at Decentralised Level	Subtopic 2.5: Wastewater Treatment for reuse	<p>Capacity building on WWTPs - planning for wastewater treatment in a pilot area including identification of suitable sites for WWTPs to accommodate possibilities for reuse including artificial recharge.</p> <p>Relevant Findings to be integrated to the National strategy under revision at MoEW</p> <p>- Training on environmental impacts assessment of wastewater treatment plant, and site selection to accommodate possibilities for reuse including artificial recharge</p>



COMPONENT 1: FIRST DRAFT WORK PROGRAMME NATIONAL LEVEL



**Water and
Environment Support**
in the ENI Southern Neighbourhood region

Morocco

Dimension	Topic	Sub-Topic	Proposed Activity
Technical Assistance	Topic 4: Legal and Regulatory aspects of mainstreaming WUE	Subtopic 2.3: Water Demand Management (EDM)	<p>Support WDM in relation to water scarcity, including development of policy instruments with the aim to reduce losses in irrigation water (e.g on-farm), domestic uses, touristic uses, industrial uses, non-revenue water.</p> <p>The sector(s) of main concern to be determined/advised by the country</p>
Technical Assistance or Capacity Building	Topic 3: Water Resources Valuation, Cost Recovery, Affordability of water services	Subtopic 3.3: Water Services Cost recovery	Elaboration of strategies for cost recovery, and development of tools for the evaluations of costs related to water



COMPONENT 1: FIRST DRAFT WORK PROGRAMME NATIONAL LEVEL



**Water and
Environment Support**
in the ENI Southern Neighbourhood region

Palestine

Dimension	Topic	Sub-Topic	Proposed Activity
Technical Assistance & Enhancement of Enabling Conditions	Topic 3: Water Resources Valuation, Cost Recovery, Affordability of water services Horizontal: PPP	Subtopic 2.2: Non-Revenue Water (NRW) Management	Design actions/modalities for improved water billing and fees' collection rates also with a view to support outsourcing and PPP and engagement through Micro PSP objective: increase financial ability for self finance and enable applying the tariff by law)
Technical Assistance & Capacity Building	Topic 2: Water Efficiency Gains at Decentralised Level Topic 5: Enhancing Water Efficiency and Productivity in Agriculture	Subtopic 5.1: Agriculture Water Use Efficiency	Capacity building/trainings with pilot farmers' associations and relevant communities on optimal irrigation management and practices using appropriate irrigation methods for improved irrigation efficiency and soil fertility, and highlighting the benefits of using treated wastewater and rainwater harvesting



COMPONENT 1: FIRST DRAFT WORK PROGRAMME NATIONAL LEVEL



**Water and
Environment Support**
in the ENI Southern Neighbourhood region

Tunisia

Dimension	Topic	Sub-Topic	Proposed Activity
Technical Assistance & Capacity Building	Topic 2: Water Efficiency Gains at Decentralised Level Topic 5: Enhancing Water Efficiency and Productivity in Agriculture	Subtopic 5.1: Agriculture Water Use Efficiency Subtopic 2.1: Non-Conventional Water Resources	<p>Improving water use efficiency at the field level:</p> <p>Capacity building/trainings with pilot GDA on optimal irrigation management and practices using appropriate irrigation methods for improved irrigation efficiency and soil fertility, and highlighting the benefits of using treated wastewater and rainwater harvesting. Exploring also the potential of new farming systems.</p> <p>Compilation and dissemination of the pilot results to transfer knowledge to end-users at on-farm level of specific localities.</p>
	Topic 2: Water Efficiency Gains at Decentralised Level Topic 5: Enhancing Water Efficiency and Productivity in Agriculture	Subtopic 2.4: Water Supply Productivity	<p>Study of siltation of a Tunisian dam:</p> <p>Assess sedimentation and recommend physical or operational measures to reduce the rate of siltation, in addition to required actions to control the sediment yield generation from the basin upstream by watershed management</p>