

Water and Environment Support

in the ENI Southern Neighbourhood region



Explore the potential of Natural Water Retention Measures (NWRM) at the catchment scale
Activity No. : N-W-JO-2

Kick-off meeting
video-conference

15 December 2020, Amman, Jordan



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15 December 2020, Amman, Jordan

Overview of the Water and Environment Support (WES) Project

Presented by: Suzan TAHA, WES Key Water Expert





WES in a Snapshot

- WES aims at protecting the environment and improving the management of scarce water resources in the Mediterranean.
- It strives to address the country needs for creating the enabling environment and enhancing the capacities of stakeholders in the Partner Countries (PCs) to **tackle problems related to pollution prevention and water use efficiency**.
- WES capitalises on previous successful EU funded regional projects (Horizon 2020 CB/MEP; SWIM SM; SWIM-Horizon 2020 SM).



WES Identity



**Water and
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in the ENI Southern Neighbourhood region

Facts & Figures	
Partner Countries:	Algeria, Egypt, Israel, Jordan, Lebanon, Morocco, Libya, Palestine* and Tunisia
Project value:	7.917.200 Euros
Duration:	May 2019 – May 2023 (48 months)
Project team:	Team Leader: Professor Michael SCOULLOS, scoullos@wes-med.eu Water Expert: Ms Suzan TAHA, taha@wes-med.eu Environment Expert: Mr Anis ISMAIL, a.ismail@wes-med.eu Communication & Networking Expert: Ms Pam VAN DE BUNT, vandebunt@wes-med.eu Stakeholders engagement expert: Dr. Emad ADLY, wes.gc@raednetwork.org
WES Focal Points (FP) (Jordan)	FP Water : Mr. Adel ALOBEIAAT, Director of Policies and Strategic planning, Ministry of Water and Irrigation FP Environment : Dr. Mohammad ALKHASHASHNEH, Secretary General, Ministry of Environment

*This designation is not to be construed as recognition of the State of Palestine and is without prejudice to the individual positions of the Member States on this issue.



WES Identity



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Our Consortium



LDK Consultants Global EEIG (Leader)



Mediterranean Information Office for
Environment, Culture and Sustainable
Development (MIO-ECSDE)



Arab Network for
Environment and Development (RAED)



Association of Cities and Regions for
Sustainable Resource
Management (ACR+)



CIHEAM – Mediterranean Agronomic Institute
of Bari (CIHEAM Bari)



Gopa Infra GmbH



Ramboll Denmark A/S



Royal HaskoningDHV



Regional Activity Centre for Sustainable
Consumption and Production
(ARC-SCP/RAC) of UN
Environment/Mediterranean Action Plan



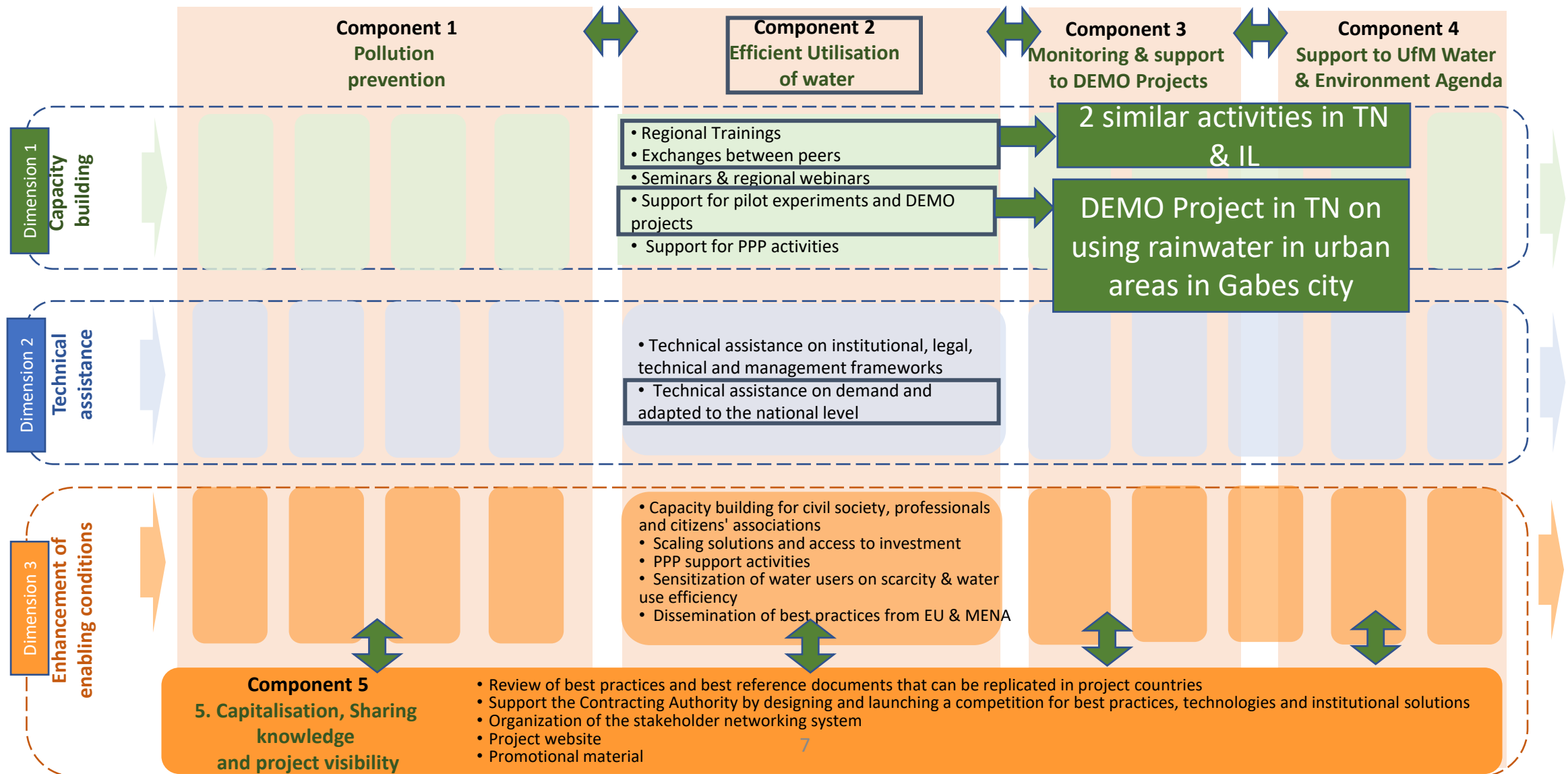
LDK Consultants Engineers &
Planners SA



Project Architecture



**Water and
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Technical assistance, Capacity building, Networks between stakeholders



**Water and
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- **Regional Level :**

- ✓ **20 regional activities**
trainings / workshops, study tours to European or South Mediterranean Countries, webinars and guided peer-to-peer exchanges).

Regional Trainings :

8 on water, 8 on environment, 4 Horizontal

Study Tours:

4 to 8 Study Tours

Exchanges between peers:

10 peer-to-peer exchange exercises combined with 4 webinars

- **National Level:**

- ✓ **4 national activities** in each partner country (**2 on water and 2 on the environment**).
- ✓ **2 WES national meetings** acting as collaboration platforms, to assess progress, plan next steps, etc.



Project Component



**Water and
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in the ENI Southern Neighbourhood region

Component 1: Pollution prevention topics

- **Theme 1:** Reduce **plastic pollution and marine litter**
- **Theme 2:** Promotion of mechanisms, tools and conditions for the transition to a **circular economy**
- **Theme 3:** Prevent and reduce **Pollution** reaching the Mediterranean from **specific industrial sectors**
- **Theme 4:** Support for the implementation of **integrated environmental management**





Project Component

Component 2: Topics related to efficient water use

- **Theme 1:** Assessment and estimation of **water use (by sector)**
- **Theme 2:** Investigations and introduction of water efficiency gains at the decentralized level
- **Theme 3:** Water resources assessment, cost recovery **and** affordability of water services
- **Theme 4:** Legal and regulatory aspects related to the integration of water use efficiency into national and regional frameworks
- **Theme 5:** Improving water efficiency and productivity in agriculture





Project Activities

Component 2 – Regional Activities

- **RW-1-REG:** Training on the practical application of the water-energy-food-ecosystem nexus and related policies and regulations WEFE
- **RW-2-REG:** Training on water accounting
- **RW-3-REG /RW-3-P2P:** Capacity Building (CB) on Water Demand Management (WDM)
- **RW-4-REG / RW-4-P2P:** CB on non-conventional water resources with a focus on water harvesting, including retention and recharge of aquifers with storm water
- **RW-5-REG/RW-5-ST :** CB on Treatment of wastewater for reuse
- **RW-6-REG/RW-6-P2P/RW-6-ST:** Training on Non-Revenue Water (NRW)
- **RW-7- REG/RW-7-ST:** Training 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.
- **RW-X-WEB: Two webinars**





Project Activities

Component 2 – Horizontal Regional Activities

- **HW-1-REG / HW-1-P2P:** Capacity building on PPP, entrepreneurship in the green / blue economy and banking services for the water / wastewater sector
- **HE-3-REG:** Education for sustainable development: focusing on treatment for the reuse of wastewater and unconventional water resources





Project Activities

Component 2 – Technical Assistance (Jordan)

- **N-W-JO-2:** Explore the potential of Natural Water Retention Measures (NWRM) at the catchment scale
Launched 15 December 2020 with MWI, WJ and JVA as partners
- **N-W-JO-1:** 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

TOR under finalisation





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Thank you for your attention



Water and Environment Support

in the ENI Southern Neighbourhood region



Explore the potential of Natural Water Retention Measures (NWRM) at the catchment scale
Activity No. : N-W-JO-2

Kick-off meeting by video conference
15 December 2020, Amman, Jordan

General context of the project and proposed actions

Presented by: Mr. Adel Alobeiaat, WES Water Focal Point, Director of Policies and Strategic Planning, MWI (On behalf of the three partners MWI, WAJ and JVA)



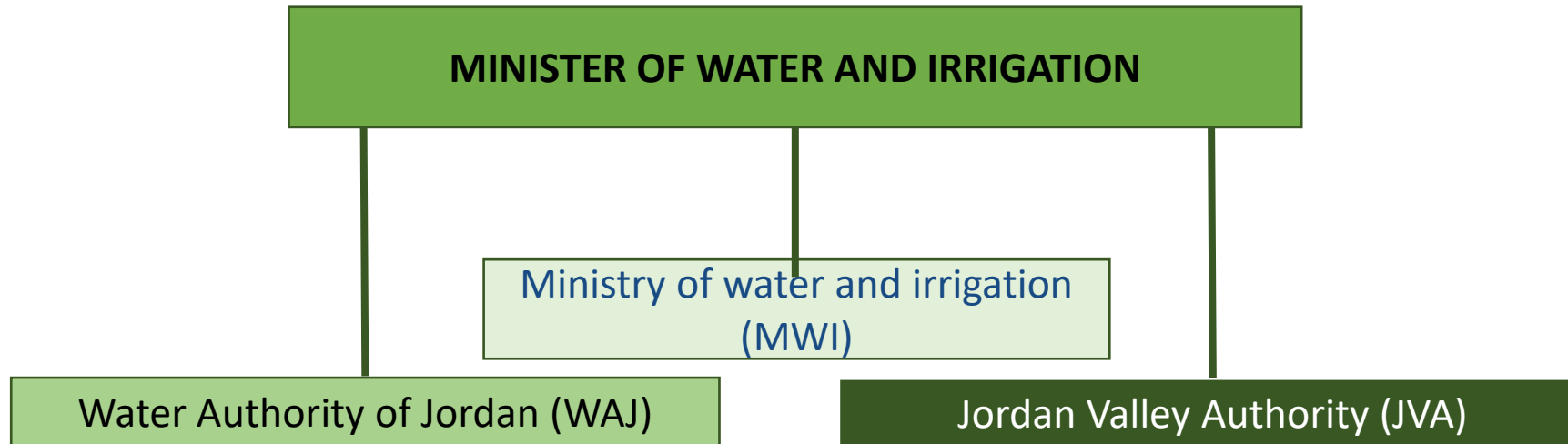


Plan

- Who are we?
- General context of the WES activity
- Objectives of the Activity
- Contribution of the partners



Who are we? (1/4)



Who are we? (2/4)

1- Ministry of Water and Irrigation (MWI)

- ❖ Responsible for overall national leadership on policy, strategic direction and planning, in coordination with WAJ and JVA. Under By-law No. 14 of 2014 , it has the overall responsibility on Water Resources in Jordan
- ❖ institutional Goals:
 - Develop sectorial policies and strategies
 - Endorse plans and programs related to water resources protection.
 - Implement international agreements
 - Develop laws, by-laws, regulations and normative and technical standards
 - Develop private sector partnerships.
 - Supervise the implementation of strategic plans and programs.

follow up on the performance of the water companies and utilities

Who are we? (3/4)

2- Jordan Valley Authority (JVA)

- ❖ Jordan Valley Authority was established according to development of the Jordan Valley law and its amendments No. 19 of 1988
- ❖ Institutional Goals:
 - Providing all irrigation services to farmers in the JV and Wadi Araba
 - Sustain and develop traditional sources of water.
 - Improve and increase the efficiency of irrigation systems
 - Effective storage of surface water (**Dams, Water Harvesting**)
 - Comprehensive and integrated development in Wadi Araba.
 - Increase the sources of non-conventional water.
 - Protect water sources from pollution and depletion.
 - Protect the soil from degradation.¹⁹

Who are we? (4/4)

3- Water Authority of Jordan (WAJ)

- ❖ The Water Authority was established in 1983 according to Water Authority Law No. 34 of 1983 to be a financially and administratively independent institution
- ❖ Institutional Goals:
 - Improve water and wastewater systems through further development of the water and wastewater treatment and networks, optimizing the use of energy, reducing nonrevenue water, **and continuing to produce water of the highest quality.**
 - Achieve a balance between revenues and expenditures through increased organizational efficiency and increase funding resources
 - Improve water and wastewater customer service and satisfaction to retail customers through



المملكة الأردنية الهاشمية



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Institutional Roles of the Partners (3 Contact Points)

- Water Harvesting Directorate under Dams administration in the Jordan Valley Authority
- Water Demand Management Unit under Communication and Media administration in Water Authority of Jordan
- Water Policies and Strategic planning Directorate Under strategic planning Administration in MWI



General context of the WES activity (1/2)

Existing strategic framework in Jordan in support of NWRM (Natural Water Retention Measures) & Water Harvesting according to the national water strategy and its related policies (2016-2025):

- ❖ Increase utilization of surface water
- ❖ Protect the environment, health and nature
- ❖ Increase the storage capacity of the surface water
- ❖ Improve the storage capacity for the existing dams ,harvesting ponds and systems
- ❖ Protect the surface fresh water resources against pollution
- ❖ Implementation of water resources safety plans
- ❖ Investigate for new water resources
- ❖ Enhance groundwater recharge

General context of the WES activity (2/2)

Existing strategic framework in Jordan in support of NWRM (Natural Water Retention Measures) & Water Harvesting according to the national water strategy and its related policies (2016-2025):

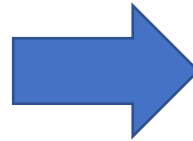
- ❖ Improve water use efficiency
- ❖ Improve economic return for agriculture using fresh water
- ❖ Improve economic return for agriculture using unconventional water
- ❖ Reducing water deficit
- ❖ Reducing water losses
- ❖ Reducing the impacts of droughts and floods in cooperation with other institutions (Drought management policy, Flood mapping project, Azraq case study)

Specific Objectives of the activity and overview of the proposed actions



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- Enrich knowledge and know-how of NWRM including storm water management in peri-urban areas as well as in rural/natural areas according to water usage.
- Review of best management practices for NWRM.
- Learn from the experience achieved from designing NWRM in two pilot cases in Jordan at the feasibility level.
- Review of economic incentives and regulation to support and amplify storm water management.
- Better understand the relationship between rural/natural and peri-urban storm water in the context of storm water management.



Review of Best Management Practices in NWRM for storm water management, aquifer recharge, debris retention transported by runoff, direct use in agriculture etc., and holding a workshop

Selection of pilot case studies in Jordan

Basic design of NWRM in the selected pilots

Review of economic incentives and regulation regarding storm water management

Concluding workshop





Contribution of the partners

- Provide relevant data and information in a timely manner;
- Review the results of the evaluation;
- Assist the experts in identifying relevant stakeholders and invite them
- Facilitate the work of experts and meetings and the experts contact with the local representatives of the pilot areas
- Organization of three workshops (invitations)
- Agree during the final workshop on the implementation of selected actions recommended by the activity
- Facilitate the implementation of the communication plan proposed by the key communications expert from WES





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Thank you for your attention



Explore the Potential of Natural Water Retention Measures (NWRM) at the Catchment Scale Activity No. : N-W-JO-2

Kick-off meeting
by video-conference

15 December 2020, Amman, Jordan

Presentation of the WES Technical Assistance Activity in Jordan

Presented by: Dr. Demetris Zarris , Non-key Thematic Expert and Technical
Coordinator of the activity

Plan



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in the ENI Southern Neighbourhood region

- 1 – Definition of Natural Water Retention Measures (NWRM)
- 2 - Proposed actions under the activity and Expected results
- 3 - Target beneficiaries and stakeholders involved
- 4 - Human resources implicated
- 5 - Action plan of the activity





Natural Water Retention Measures (NWRMs)

NWRMs are multi-functional measures that aim to protect water resources and address water-related challenges by restoring or maintaining ecosystems, as well as **natural features** and characteristics of water bodies using **natural means and processes** (EU Policy Document).

- ✓ Retain water (runoff or river flows) beyond the existing capacity of systems, releasing it at a controlled rate, or infiltrating it to groundwater;
- ✓ Use the retention capacity of soils and of aquatic ecosystems to provide other environmental and well-being improvements, such as water quality, biodiversity, amenity value or resilience and adaptation to climate change impacts;
- ✓ Are usually applied at relatively 'small scale', in comparison to the size of the water catchment or territory in which they are implemented;
- ✓ Emulate a natural process, although are not always 'natural' features themselves (as clearly illustrated by green roofs, check dams, etc.).



Definitions



JRC SCIENTIFIC AND POLICY REPORT

Evaluation of the effectiveness of Natural Water Retention Measures

Support to the EU Blue Growth Strategy
to Safeguard Europe's
Waters

Peter Burek, Sarah Mubareka, Rod
de Roo, Alessandra Bianchi, Claudio
Carlo Lavallo, Ine Vandecasteele

2012




Joint
Research
Centre




NATURAL SMALL

combining drought
and bio



A guide to support
the selection, design
and implementation of
**Natural Water
Retention Measures
in Europe**

Capturing the multiple benefits
of nature-based solutions



Natural Water Retention Measures

www.nwrm.eu

Water and

Technical Report - 2014 - 082

document on
Retention Measures
Working team of the WFD CIS Working
Programme of Measures (WG PoM)

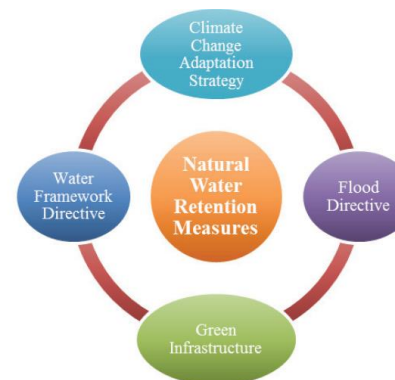
Definitions



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Table 1. Illustrating the diversity of measures classified as NWRM¹

Type	Class	Non-exhaustive list of examples
Direct modification in ecosystems	Hydro-morphology (Rivers, Lakes, Aquifers, connected wetlands)	Restoration and maintenance of rivers, lakes, aquifers and connected wetlands; Reconnection and restoration of floodplains and disconnected meanders, elimination of riverbank protection...
	Agriculture	Restoration and maintenance of meadows, pastures, buffer strips and shelter belts; soil conservation practices (crop rotation, intercropping, conservation tillage...), green cover, mulching...
Change & adaptation in land-use & water management practice	Forestry and Pastures	Afforestation of upstream catchments; targeted planting for "catching" precipitation; Continuous cover forestry; maintenance of riparian buffers; urban forests; Land-use conversion for water quality improvements...
	Urban development	Green roofs, rainwater harvesting, permeable paving, swales, soakaways, infiltration trenches, rain gardens, detention basins, retention ponds, urban channel restoration...



Natural Water Retention Measures (NWRMs)

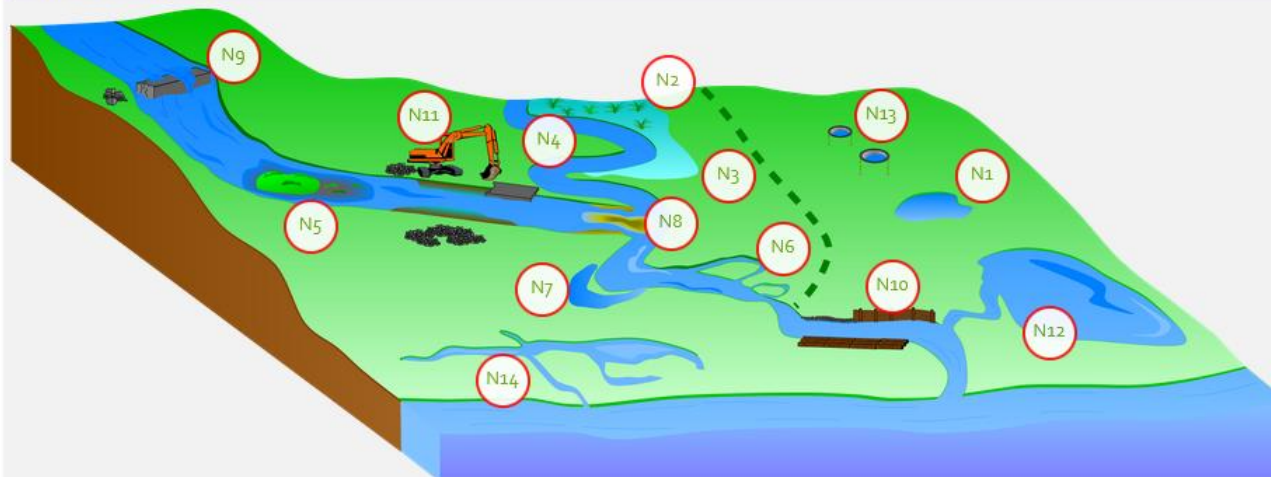


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River Hydromorphology

[Home](#) » [Hydro morphology](#)

Hydro morphology



N01	Basins and ponds
N02	Wetland restoration and management
N03	Floodplain restoration and management
N04	Re-meandering
N05	Stream bed re-naturalization
N06	Restoration and reconnection of seasonal streams
N07	Reconnection of oxbow lakes and similar features
N08	Riverbed material renaturalization
N09	Removal of dams and other longitudinal barriers
N10	Natural bank stabilisation
N11	Elimination of riverbank protection
N12	Lake restoration
N13	Restoration of natural infiltration to groundwater
N14	Re-naturalisation of polder areas

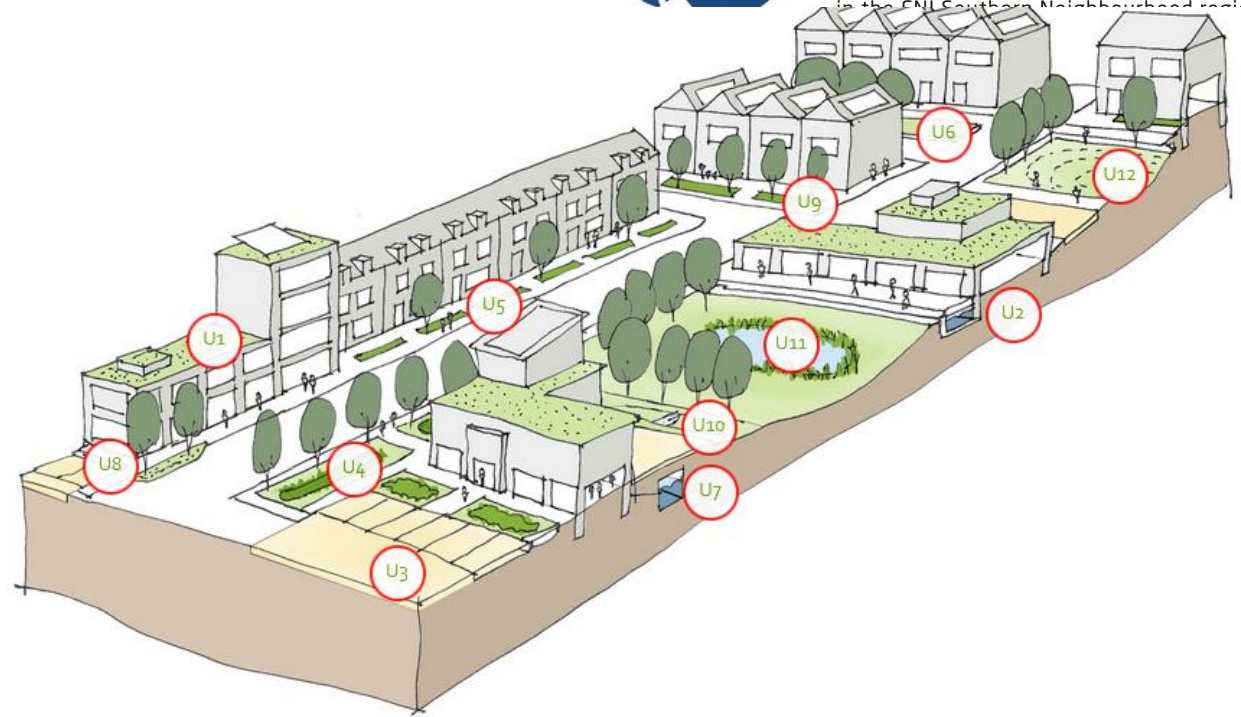


Natural Water Retention Measures (NWRMs)



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Urban Drainage



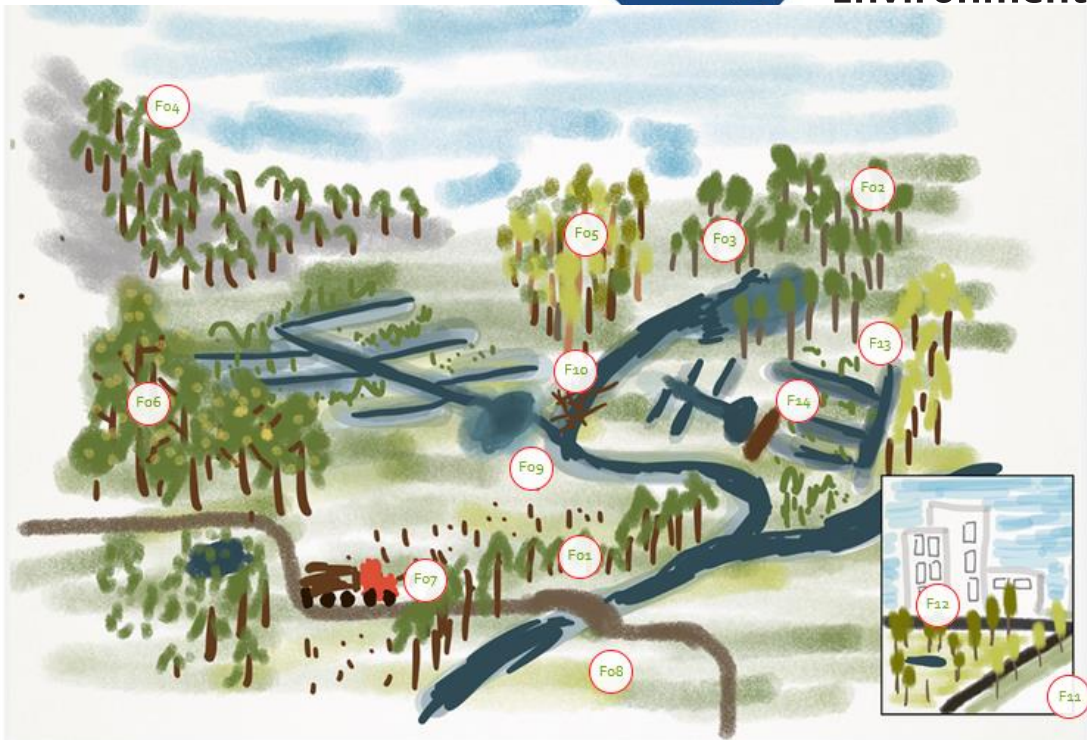
U01	Green Roofs
U02	Rainwater Harvesting
U03	Permeable surfaces
U04	Swales
U05	Channels and rills
U06	Filter Strips
U07	Soakaways
U08	Infiltration Trenches
U09	Rain Gardens
U10	Detention Basins

Natural Water Retention Measures (NWRMs)



Water and
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bourhood region

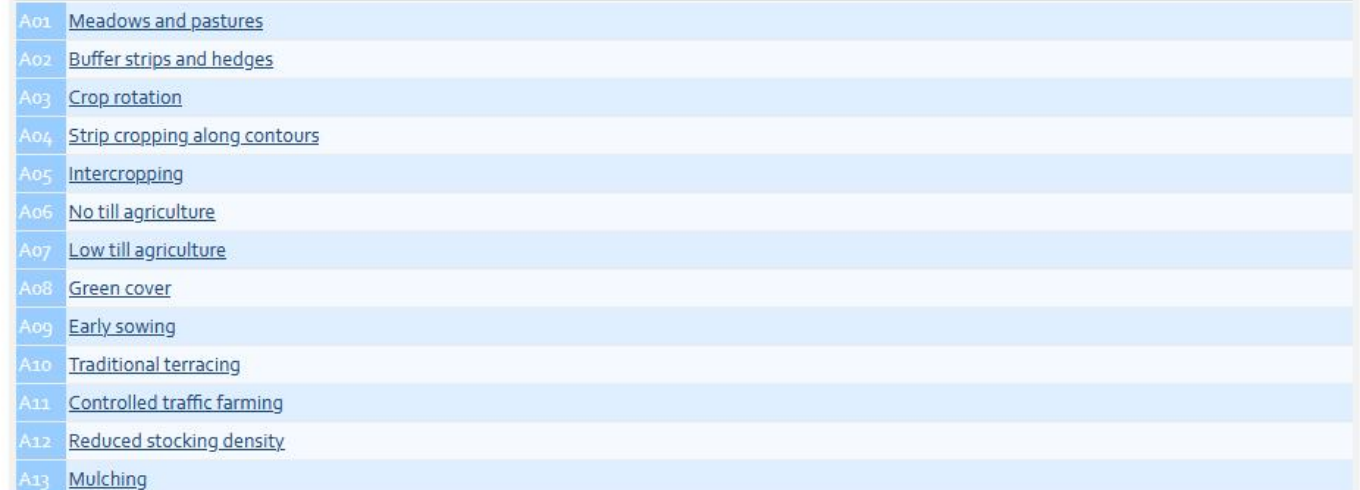
Forestry and Natural Areas



- F01 [Forest riparian buffers](#)
- F02 [Maintenance of forest cover in headwater areas](#)
- F03 [Afforestation of reservoir catchments](#)
- F04 [Targeted planting for 'catching' precipitation](#)
- F05 [Land use conversion](#)
- F06 [Continuous cover forestry](#)
- F07 ['Water sensitive' driving](#)
- F08 [Appropriate design of roads and stream crossings](#)
- F09 [Sediment capture ponds](#)
- F10 [Coarse woody debris](#)
- F11 [Urban forest parks](#)
- F12 [Trees in Urban areas](#)
- F13 [Peak flow control structures](#)
- F14 [Overland flow areas in peatland forests](#)



Agriculture



Target beneficiaries and stakeholders involved



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Main beneficiaries

- ✓ Jordan Valley Authority
- ✓ Water Authority of Jordan
- ✓ Ministry of Water and Irrigation, Jordan

Stakeholders involved

- ✓ Local Water Administration
- ✓ Ministry of Agriculture
- ✓ Ministry of Environment
- ✓ Direct users (farmers and others)
- ✓ The National Centre for Security and Crisis Management (NCSCM)
- ✓ Public Security Directorate/ Civil Defense Department
- ✓ Other stakeholders to be presented by Emad Adly the



Proposed actions & Expected Results



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Task 1: Review of Best Management Practices (BMP) in Natural Water Retention Measures (NWRM) for storm water management, aquifer recharge, debris retention transported by runoff, direct use in agriculture etc., and holding a workshop.

Because NWRMs is a relative novel term and approach on stormwater management, it is essential to fill a list of available measures from international literature adjusted to arid and semi-arid regions with flash flood characteristics that fits better to hydrological conditions in Jordan.

Results

- Case studies demonstrating the application of selected best practices in NWRMs for storm water management and aquifer recharge, etc.
- NWRMs classified according to different sources of water and areas of application focusing on arid and semi-arid climatic conditions.
- The **various stakeholders concerned are identified** and their role in the activity is agreed upon.
- A dialogue between the relevant stakeholders is established (during a one-day workshop), and an agreement is reached on the proposed measures to be applied in the different areas in Jordan also with a view to their applicability to arid or semiarid climatic conditions.
- 5. A document of NWRMs updated based on the workshop results.

Tools for deployment:

- Search for projects databases on the Internet
- The European Union Reports on NWRMs.



Proposed actions & Expected Results



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Task 2: Selection of pilot case studies in Jordan

Two pilot cases (one peri-urban area and one rural/natural area) in Jordan will be carefully selected to further accommodate the applicability of the measures and the objective to produce a framework guide for similar projects in the future.

Results

- Report describing the selection process, the adopted criteria, the specific characteristics of the selected areas, etc.
- Data collection, processing and storage in GIS database and timeseries databases.

Tools for deployment:

- Development of GIS databases.
- Development of database with timeseries.



Proposed actions & Expected Results



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Task 3: Basic design of NWRMs in the selected pilot areas

For the selected pilot cases, the conceptual design of the selected NWRMs will take place by means of (a) hydrologic modelling and (b) hydraulic design. The conceptual design will estimate how much of the mean annual water runoff can be retained in natural or artificial storages, and how much can be diverted into the groundwater by percolation and will include the design of the basic infrastructure to accomplish that. Landscape Architecture will provide guidance for the design according to the prevailing semi-arid landscape and building tradition.

Results

- Design of NWRMs in both pilot areas - by means of hydrologic modelling and hydraulic design (according to the prevailing semi-arid landscape and building tradition).
- Estimation of storm water volume retained in natural or artificial storages.
- Design of proposed work at the feasibility level

Tools for deployment:

- Hydrologic Modelling with HEC – HMS (Soil Moisture Accounting (SMA)) method.
- Hydraulic Modelling with HEC-RAS for open channel flows and SWMM for sewer modelling



Proposed actions



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Task 4: Review of economic incentives and regulation regarding storm water management

A cost–benefit analysis will be performed for the selected NWRMs, comparing the economic and environmental **benefits** of the water retained in natural and/or artificial storages (economically by the associated usage (irrigation, water supply, etc.), flood defense and environmentally by the water quality of the recipients) with the **costs** of applying the NWRMs. According to the analysis and the sustainability of the concept in general, the economic incentives for further adopting NWRMs will be proposed and a regulation framework on the application of the NWRMs for the whole of the country will be prepared.

Results

- Cost – benefit analyses of NWRMs comparing the costs (cost of construction, pollution, etc.) with the benefits per m³ retained in storage (including benefits from flood defence).
- Assessment of funding options according to the nature of retention (groundwater, surface water) and purpose of water use.
- Economic incentives for the application of NWRM
- Basic structure of regulation manual regarding application of NWRM in Jordan.



Proposed actions



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Task 5: Concluding workshop

A closing workshop is expected to be organized involving relevant national and local stakeholders in order to present and further promote the sustainability of NWRMs in Jordan.

The results of the activity including those from both pilot cases will be presented alongside the cost – benefit analyses to illustrate the viability for the general application of NRW in the country.

Guidelines/criteria for the selection of appropriate sites of retention and detention systems will also be prepared and be presented during the workshop.

Results

- The results of the activity are presented to the beneficiaries (in a one-day national consultation workshop), and evaluated, and priorities of NWRM options are selected
- A dialogue between the different stakeholders is established (in a one-day workshop) and a set of actions is selected for which the country commits to implement during the WES project.
- Guidelines/criteria for the selection of appropriate sites of retention and detention systems.

Tools for deployment:

- Presentations with Q&A
- Consultation among stakeholders on the applicability of the NWRMs in Jordan.



Schedule



**Water and
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Task	M 1	M 2	M 3	M 4	M 5	M 6	M 7	M 8	M 9	M 10	M 11	M 12	M 13	M 14
TOR preparation														
TOR approval by EC (up to 3 weeks)														
Contracting														
Task 1														
Task 2														
Task 3														
Task 4														
Task 5														



Actions made necessary by the Covid-19 crisis



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Task 1: Review of Best Management Practices (BMP) and Natural Water Retention Measures (NWRMs) for storm water management with a workshop

- ✓ Remote review
- ✓ In case mobility is still restricted, stakeholder workshop to be implemented remotely

Task 2: Selection of pilot case studies in Jordan

- ✓ Might have to be implemented through the assistance of the partners and local expert

Tasks 5 – Date and mode of implementation of the final workshop to be revised according to the containment measures in Jordan.



Storm water management and Natural Water Retention Measures:

Activity N° : N-W-JO-2:

Kick-off meeting
by video-conference

14 September 2020, Tel Aviv, Jordan

Introducing the Non-Key Experts – 5 mins

Suzan TAHA (WES Key Water Expert)



Human resources and implementation



**Water and
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The project will be implemented by a team of 4 non-key experts:

Name of non-key expert	Function in the activity
Mr Demetris Zarris	Non-Key Expert (NKE1), Hydrologist – Water Resources Engineer (International) and Technical Coordinator of the activity
Mr Farouk Tadros	NKE2 – Local expert in Landscape Architecture.
Ms Elini Avramidi	NKE3 – Environmental Engineer - GIS Expert (International) .
Mr Salameh Mahsneh	NKE4: Local Stakeholders' Facilitator

Also with contributions from the Senior Expert in Stakeholders Engagement Dr. Emad Adly and Senior Expert in Communication: Ms. Pam van de Bunt



Storm water management and Natural Water Retention Measures:

Activity N° : N-W-JO-2:

Kick-off meeting
by video-conference

15 December 2020, Amman, Jordan

Discussion Requirements and Challenges – 20 mins

Moderated by: Suzan TAHA (WES Key Water Expert) & Demetris Zarris (Non-key Thematic Expert and Technical Coordinator of the activity)



Discussion – Requirements & Challenges



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General

- Mobility of local experts
- Remote work
- Timely provision of information
- Stakeholder engagement in the activity
- Agree during the final workshop on the implementation of the selected actions recommended by the activity in order to ensure the development of the impact of the activity
- Facilitation of contact with local representatives of the pilot areas
- Facilitate the implementation of the communication plan

Data availability and quality :

- Background maps [raster-vector] (e.g.: Digital Terrain Model, topographic maps, soil / geologic maps)
- Existing water harvesting and storage works [dams, lakes, etc.]
- Land use information with water demand of different water uses with map.
- Timeseries data on different scales (hourly for floods, daily for general water budget) including rainfall, runoff, evapotranspiration.





Tools and Software (S/W)

- GIS Tools (ArcMap, Spatial Analyst, 3D Analyst)
- Water Balance Calculation Tools (HEC-HMS model)
- Hydraulic Model (HEC-RAS for open channels and SWMM for both open and conduit systems)





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Thank you for your attention





Explore the potential of Natural Water Retention Measures (NWRM) at the catchment scale

Activity No. : N-W-JO-2

Kick-off meeting by video conference

15 December 2020

Enhancing the impact of WES Communication and dissemination

Presented by: Mrs. Pam van de Bunt - Communication and Networking Expert

Communicate !



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WES general communication objectives



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- To increase awareness of water and environmental issues currently under pressure in the Mediterranean
- Increase the commitment of decision-makers and other stakeholders
- Mobilise civil society
- Ensure visibility of WES and the EU support for water and environmental issues in the region



Specific communication objectives



**Water and
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- Enhancing knowledge on the importance of natural water retention and storm water management.





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Target groups

- Municipalities
- Local Water Administrations
- Relevant authorities - Ministry of Agriculture, Ministry of Environment, Ministry of Public works and Housing
- Media
- Relevant NGOs
- Direct users (farmers and others)



WES communication tools



**Water and
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**Short social
media campaign**



Targeting media



**Press briefing
during
Final workshop**



**Short info
bulletin on
project progress
and results**



For further information



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Thank you





Explore the potential of Natural Water Retention Measures (NWRM) at the catchment scale Activity No. : N-W-JO-2

Kick-off meeting
(By video conference)

15 December 2020, Amman, Jordan

Stakeholders Engagement and Evaluation of Impact

Presented by: Dr. Emad ADLY, Stakeholders engagement expert and impact evaluation





Stakeholders' Engagement ➡ important impacts

- The main stakeholders will be identified and targeted with the focal point and the partners.
- Stakeholders who could be potentially involved :
 - ✓ Local Water Administration in Water Authority of Jordan (depending on the selected pilot area)
 - ✓ Ministries of Agriculture, Environment , Public works and Housing, local administration
 - ✓ Public security directorate/ Civil Defense department
 - ✓ The National Centre for Security and Crisis Management (NCSCM) .
 - ✓ Municipalities, or Local council members
 - ✓ The Parliament “Agriculture, Water and Badia Committee
 - ✓ NGOs and CSOs of relevance including women’s associations
 - ✓ Academics and consultants (preferably young hydraulic engineers)
 - ✓ Direct users (farmers and others)



Evaluate the impact of WES Capacity Building



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- In general, WES measures direct results during the implementation of capacity building activities: quizzes, exercises, scorecard, engagement sheet, etc.
- Indicator NW-JO-2: Number of actions actually implemented by the targeted actors, compared to those that were committed to during the inception workshop
- WES measures mid-term results after activities have taken place
 - ✓ post-training impact survey (online) sent to all participants
 - ✓ direct contact / direct interview with a few selected participants

**"WE CAN WORK TOGETHER FOR A
SUSTAINABLE MEDITERRANEAN
REGION"**



For further information



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Thank you for your attention!

