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



RW-3-P2P WDM

Peer-to-Peer on Water Demand Management

Final Report

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WATER AND ENVIRONMENT SUPPORT IN THE ENI SOUTHERN NEIGHBOURHOOD REGION

The "Water and Environment Support (WES) in the ENI Neighbourhood South Region" project is a regional technical support project funded by the European Neighbourhood Instrument (ENI South). WES aims to protect the natural resources in the Mediterranean context and to improve the management of scarce water resources in the region. WES mainly aims to solve the problems linked to pollution prevention and the rational use of water. WES builds on previous similar regional projects funded by the European Union (Horizon 2020 CB/MEP, SWIM I and II, SWIM-Horizon 2020 SM) striving to create a supportive environment and increase the capacity of all stakeholders in the partner countries (PCs). The WES Partner Countries are Algeria, Egypt, Israel, Jordan, Lebanon, Libya, Morocco, Palestine, Syria, and Tunisia. However, to ensure the coherence and effectiveness of EU funding or to promote regional cooperation, the eligibility of specific actions can be extended to neighbouring countries in the Southern Neighbourhood region.

As part of the WES project workplan for the second year (2020-2021), related to the Regional Activities, a regional training on Water Demand Management (WDM) (RW-3-REG) as well as a regional Peer-to-Peer (P2P) Exchange (RW-3-P2P) are organised. The training on WDM carried out between 20.01.2022 and 17.02.2022, with a total of five plenary virtual sessions. The P2P Exchange activity was kicked off after the training sessions (29.03.2022) and lasted until mid October 2022.

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ABBREVIATIONS

ABBREVIATION	Meaning
<i>CB/MEP</i>	Capacity Building/Mediterranean Environment Programme
<i>ENI</i>	European Neighbourhood Instrument
<i>EU</i>	European Union
<i>EC</i>	European Commission
<i>IWRM</i>	Integrated Water Resources Management
<i>KE</i>	Key Expert
<i>NGO</i>	Non-Governmental Organisation
<i>NKE</i>	Non-Key Expert
<i>NRW</i>	Non-Revenue Water
<i>PCs</i>	Partner Countries
<i>P2P</i>	Peer-to-Peer
<i>SWIM</i>	Sustainable Water Integrated Management
<i>SWIM-Horizon2020 SM</i>	Sustainable Water Integrated Management – Support Mechanism Project
<i>UNEP-MAP</i>	United Nations Environment Program - Mediterranean Action Plan
<i>WDM</i>	Water Demand Management
<i>WCE</i>	Water Conservation and Efficiency
<i>WES</i>	Water and Environment Support

1 BACKGROUND AND OBJECTIVES

1.1 BACKGROUND INFORMATION

Water Demand Management (WDM) as a policy and strategic option for water resources management have gained prominence with the occurrence of the paradigm shift from water resources development to Integrated Water Resources Management (IWRM). Therefore, it is imperative to locate water demand management within the context of IWRM to fully appreciate the contribution WDM can make towards sustainable water resources management.

The scope of WDM includes the entire water supply chain from the point of groundwater abstraction or surface water intake to the point of usage (customers' tap). This includes, among others, all levels of distribution management and customer's demand management. At the end user point, WDM includes all type of consumers: agricultural, domestic/residential, touristic, industrial, as well as institutional users.

Since efficiency in the water distribution network (e.g., Non-Revenue Water management) and in the agricultural sector would be the subject of other regional trainings within the framework of the WES project, this training on WDM focused on the customers' demand management targeting mainly management of water demands in the non-agricultural sector, namely in the domestic/residential, touristic, and industrial uses.

Among other things, the P2P Exchange activity zoomed particularly into water demand forecasting as a technique to manage water demands. Approaches and case studies from Israel and Jordan have been exchanged and presented.

The Peer-to-Peer Exchange activity gathered planners, managers, business developers, decision makers, academics/experts and stakeholders involved in the selection, development, and implementation of WDM and Water Conservation and Efficiency (WCE) measures as part of plans and programmes aiming to safeguard groundwater and surface water sources in the WES Partner Countries (PCs).

1.2 OBJECTIVES

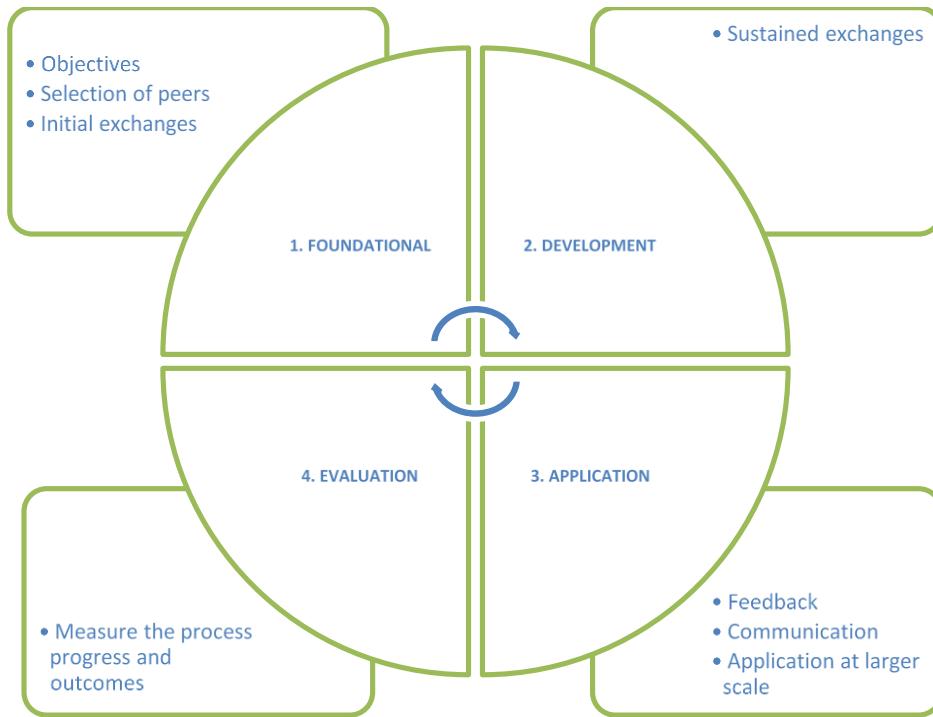
The specific objectives of the regional P2P Exchange activity, which involves direct exchange of experience between and among peers from relevant institutions in the beneficiary countries, are:

- Sharing knowledge among peers on challenges related to the implementation of WDM in their countries, and on successful ways to address the aforementioned challenges.
- Sharing expertise on WDM applicable in the South Mediterranean countries.
- Boosting South-to-South and North-to-South cooperation.
- Building lasting professional relations and exchanges.
- Allow participation of peers to national trainings of other countries as resource persons or observers.

2 METHODOLOGY AND STRUCTURE OF THE PEER-TO-PEER

2.1 METHODOLOGY

The approach to the Peer-to-P2P Exchange activity built on the below showcased methodology, which has demonstrated success in the past WES activities.



A total of five virtual meetings were organized. The P2P Exchange activity was carried out by the Ramboll Non-Key Expert (NKE), Cor Merks, under the guidance of the WES Key Water Expert (KWE), Ms. Suzan Taha (based in Amman, Jordan). The implementation has been facilitated by Ms. Fantine Hureau and Ms. Andreea Florea, both Young Water Professional from Ramboll's IWCR Department.

In preparation of the Kick-Off Meeting, the P2P Concept Note was developed by Ramboll in close collaboration with Ms. Suzan Taha. Furthermore, Ramboll developed a questionnaire that would set the way forward during the exchange. Generally speaking, the meetings addressed the priority topics emanating from the results of the questionnaire, which was elaborated on during the first working session. The purpose of the questionnaire was to identify the most relevant topics for the participating countries and the expectations from the exchange. The proposed list of topics included:

- Education / awareness raising
- Tarification
- Water Demand Forecasting
- Stakeholder Cooperation
- Funding
- Data availability

The suggested topics debated in the first working session, was adjusted, and narrowed down to a shortlist comprised of three priority topics:

- Understanding water use (mapping consumers, metering)
- Water efficiency measures (incl. labelling)
- Water Demand Forecasting

Each of the topics was assigned to a working group. However, only one working group showed interest and active engagement, namely the working group focusing on Water Demand Forecasting, comprised of two peers from the two partner countries: Israel and Jordan.

The working group Water Demand Forecasting engaged in two ad-hoc meetings and prepared case studies that were presented during the closing meeting of the P2P Exchange activity. These case studies were prepared with the purpose of illustrating success or failure, lessons learnt and the status of implementation of the WDM measures defined as priority topics in their countries.

Given that Zoom/Teams was used for the virtual meetings, and that Ramboll introduced Kahoot for engaging exercises, instructions for these digital tools were provided in a memo prior to the P2P Exchange activity. Finally, as per Terms of Reference, a Google Form evaluation questionnaire was shared by email with all participants during the final meeting.

2.2 STRUCTURE OF THE PEER-TO-PEER

The Peer-to-P2P Exchange activity included one Kick-Off Meeting, one informal meeting during the RW-3-REG WDM Regional training, two working sessions, two ad-hoc meetings, and a final meeting. All peers have been invited for each meeting. The appointed Ramboll staff attended each meeting. The invited peers attended most of the meetings.

The structure of each session is described in the following:

- **Kick-off Meeting (13.12.2021)**
 - Introduction of the peers and the experts
 - Presentation of the WES WDM program (Regional training and P2P Exchange activity)
 - Introduction to Water Demand Management
 - Roadmap of the P2P Exchange activity on WDM including Introduction and unpacking of the questionnaire
 - Interactive session:
 - Case studies to be presented by the peers in the Regional training or during the P2P Exchange
 - Discussion of topic proposals suggested by peers – defining the long list of priority topics for the exchange
 - Feedback on activity and questionnaire
- **Informal meeting (20.01.2022)** during the RW-3-REG Regional training.
- **1st P2P working session (early morning 29.03.2022)**
 - Meet and greet – peers and facilitators

- Review of the WDM Regional training including drawing the key takeaways from each of the five training modules
- Defining the shortlist of the priority topics
- Reaching agreement on the P2P Exchange process
- **1st Ad-hoc meeting (06.06.2022)**
 - Feedback and discussion on the P2P Concept Note
 - Presentation and discussion on priority topic 1: Understanding water use
 - Establishing the working group and expected deliverables
 - Presentation and discussion on priority topic 2: Efficiency measures (Labelling)
 - Establishing the working group and expected deliverables
 - Presentation and discussion on priority topic 3: Forecasting
 - Establishing the working group and expected deliverables
 - Planning of the next ad-hoc meeting
- **2nd Ad-hoc meeting (08.08.2022)**
 - Presentation and discussion of case studies (Israel and Jordan) prepared by peers
- **Final Meeting**
 - Meet and greet – peers and facilitators
 - Presentation by peer
 - The water situation at the Hashemite Kingdom of Jordan
 - Presentation by peer
 - Planning methodologies and water demand predictions
 - Presentation by Severn Trent
 - Water demand forecasting in the UK
 - Presentation by Ramboll NKE
 - Case study water demand forecasting
 - Presentation by WES KE
 - Water demand forecasting approaches in Jordan
 - Kahoot quiz on WDM learnings
 - Evaluation and closure of the Regional P2P Exchange activity on Water Demand Management

3 EVALUATION RESULTS OF THE PEER 2 PEER

The P2P Exchange activity was assessed by participants on several criteria, such as overall delivery and facilitation, expectations, interaction with the peers and the coach, duration, outcome, personal takeaways, and suggestions for improvement. Background information on the participants was collected as well, such as gender, age, position/working title, country of origin. A total of three and four responses were collected from the participants.

- Planning/confirming the P2P activity: the formulation of objectives and expected results was participatory, efficient and effective / Planification...es résultats attendus a été participative et efficace
4 réponses

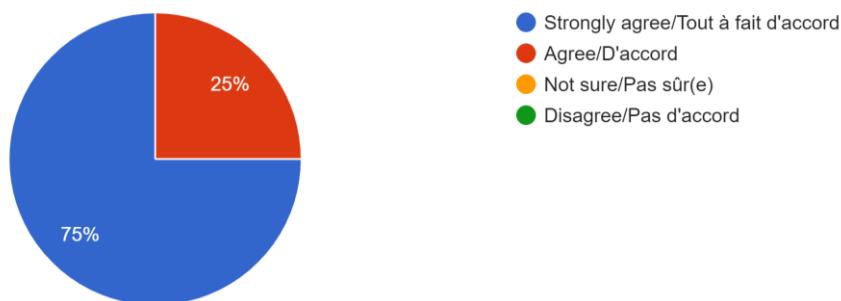


Figure 3-1: Planning and expected results

- Delivering the P2P activity: / Réalisation de l'activité P2P :

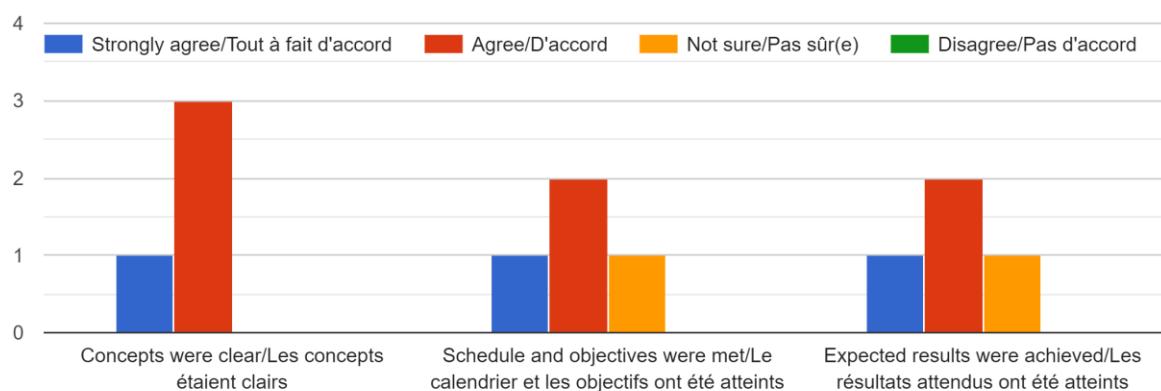


Figure 3-2: Managing expectations

3. Facilitation/delivery of the P2P process / Facilitation/réalisation du processus P2P

4 réponses



Figure 3-3: Facilitation of the exchange

4. Interaction with the other Peers/Interaction avec les autres pairs

4 réponses

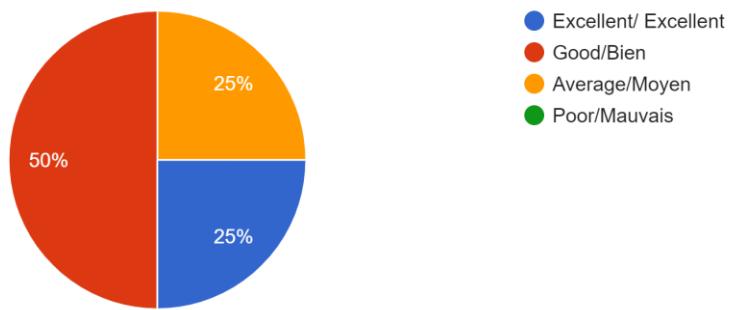


Figure 3-4: Collaboration between peers

5. Interaction with the coach/Interaction avec le coach

4 réponses

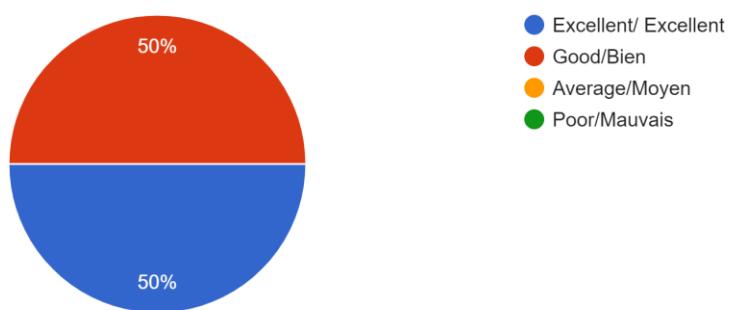


Figure 3-5: Collaboration with the facilitators

6. Duration of the process: In your view the duration of the peer to peer process (from conception to the delivery of the output(s)) was: / Durée du pro...onception à la livraison du/des résultat(s) était :
4 réponses

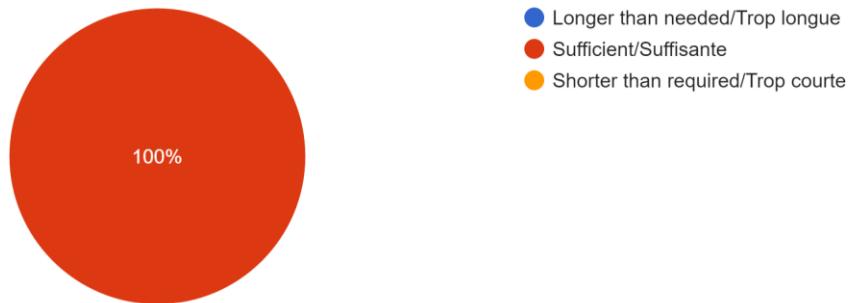


Figure 3-6: Exchange duration

7. How did you benefit most from this P2P process?/Comment avez-vous bénéficié le plus du processus P2P ?

3 réponses

PARTEGE DES EXPERIENCES

knowledge sharing between the region

Enriched knowledge, networking

Figure 3-7: Outcome of P2P

8. What did you like best?/Qu'avez-vous apprécié le plus ?

3 réponses

LA DISCUSSION

exchange of experience from other countries (as much as was shared)

Water demand forecasting approaches in Jordan

Figure 3-8: Personal takeaways

9. What needs to be improved or could be done differently?/Qu'est-ce qui doit être amélioré ou pourrait être fait différemment ?

4 réponses

PRESENTIELLE DE PREFERENCE

apply what we learn it on the gourd by pilots projects

Looking into ways to attract more activity from more participants (a challenge!)

discussing the management & planning programs and tools used in the participating countries.

Figure 3-9: Suggestions for improvement

1. Do you consider the peer-to-peer processes a suitable tool for knowledge transfer?/Considérez-vous les processus entre pair...il approprié pour le transfert des connaissances ?

4 réponses

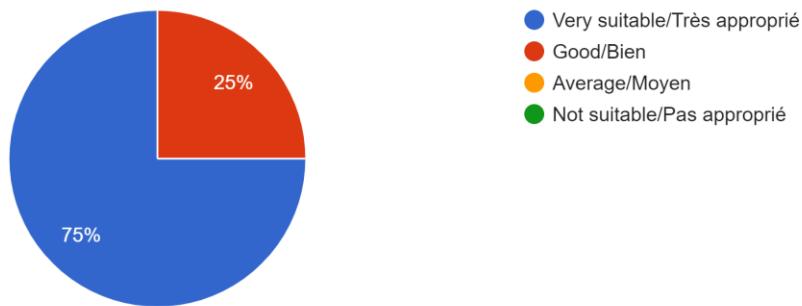


FIGURE 3-10: P2P AS A KNOWLEDGE TRANSFER MEDIUM

2. Overall rating of the P2P process/Evaluation globale du processus P2P

4 réponses

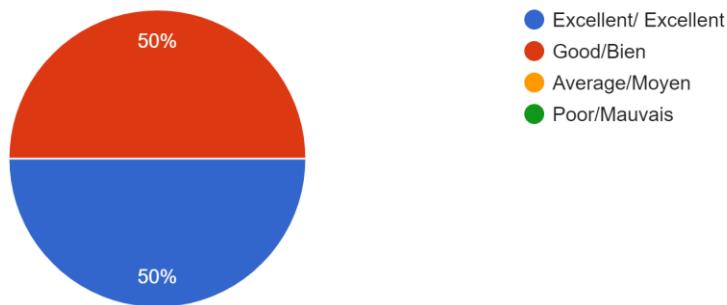


FIGURE 3-11: OVERALL RATING OF THE P2P

Any other comments/Autres commentaires

2 réponses

Thanks for your supports

P2P process was excellent - among the active peers. I would suggest engaging more peers in active discussions by assigning concrete tasks to everyone (for example: "present current situation/experience/problem from your country" - everyone, 5 to 10 minutes).

FIGURE 3-12: ADDITIONAL COMMENTS

4 CONCLUSIONS AND RECOMMENDATIONS

4.1 CONCLUSIONS

The Peer-to-Peer provided knowledge and insights to the participants on the following topics:

- Challenges related to water demand management in the South Mediterranean region.
- Potential impacts of increasing water demand and projected water scarcity in the region.
- Orders of magnitude of current and projected water demands for industry, tourism, and domestic/residential use in the region.
- Best practices for water demand forecasting.
- Best practices for WDM interventions, including economic measures, labelling, tariffication, and awareness-raising.

4.2 RECOMMENDATIONS

Based on lessons learnt from the exchange programme, the following recommendations can be made to strengthen capacities for effective WDM in the South Mediterranean:

In view of future Peer-to-P2P Exchanges as part of Technical Assistance projects, involvement of the peers is crucial. This needs to be done in a timely manner and cannot fall solely under the facilitator's responsibility. The organizer has the power to steer engagement and ensure a good connection with the peers.

Contentwise, the P2P Exchange program has been a success. A variety of WDM interventions were presented and discussed. Participants had the opportunity to capitalize on the most relevant knowledge streams and steer the direction of their learning. It was enriching to elaborate on practices and experiences from Isreal and Jordan. During the exchange it was recognized that identical tools were being used, so the peers could share their own perspectives, and discuss gaps and possibilities for improvement.

Overall, the takeaways were that peers have been enriched with exchanges of local experiences, but also international perspectives and they now have the chance to implement the most promising and applicable approach in their country.

5 ANNEXES

There are no annexes to this P2P Exchange activity on WDM Final Report. The list of participants is available on request. The agenda of each meeting and the slide decks (as presented) are distributed by email to all participants.