ENI CBCMED
Cooperating across borders in the Mediterranean

Project funded by the EUROPEAN UNION

REGIONE AUTÒNOMA DE SARDIGNA
REGIONE AUTONOMA DELLA SARDEGNA

MENAWARA

NON CONVENTIONAL WATER RE-USE IN AGRICULTURE IN MEDITERRANEAN COUNTRIES

IR2MA FINAL WORKSHOP

24/06/2021

MAIN INFORMATION

B.4.1 – Support innovative and technological solutions to increase water efficiency and encourage use of non-conventional water supply

The joint challenges consist on providing additional resources by recycling drainage and wastewater (WW), tapping water losses, rationalizing water use practices

36 months

Total budget
€2.903.917,60

out of which
€2.613.525,84 as EU funding (90% contribution)

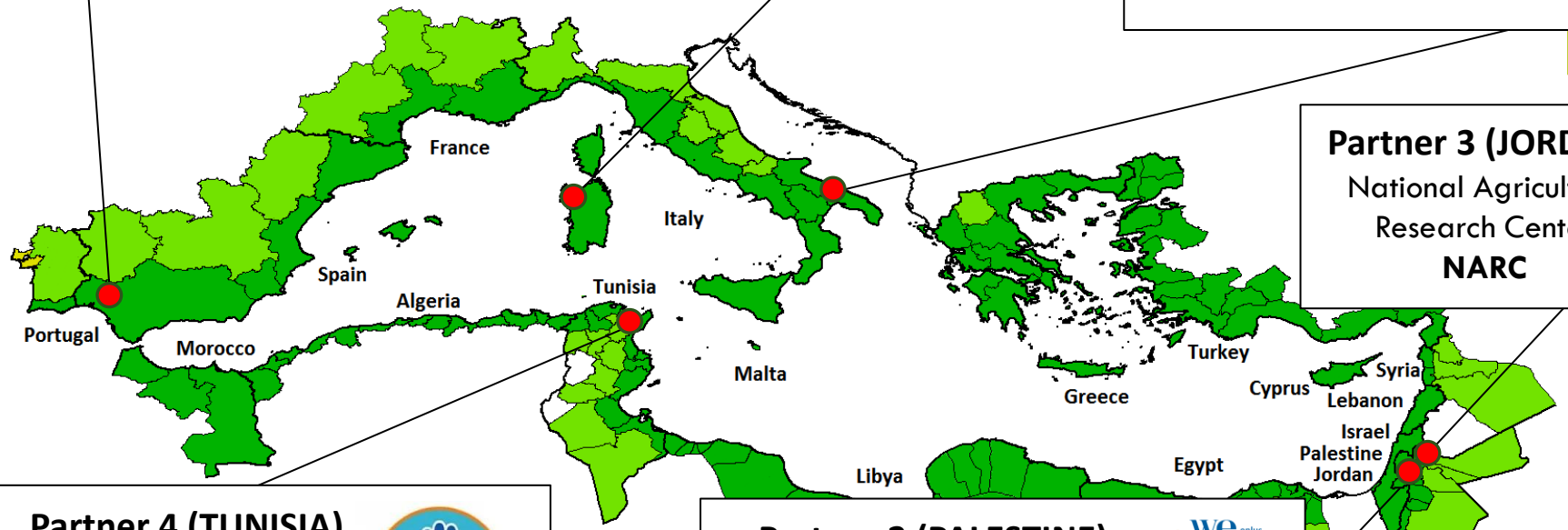
PARTNERSHIP

Applicant (ITALY)
Desertification Research Centre
University of Sassari
NRD-UNISS

Partner 5 (SPAIN)
Fundación Centro de las Nuevas Tecnologías del Agua
CENTA

Partner 1 (INTERNATIONAL)
Centre International de Hautes Études Agronomiques Méditerranéennes (C.I.H.E.A.M.) – Istituto Agronomico Mediterraneo di Bari
CIHEAM-IAMB

Partner 3 (JORDAN)
National Agricultural Research Center
NARC



Partner 4 (TUNISIA)
Office National de l'Assainissement
ONAS

Partner 2 (PALESTINE)
WEWORLD-GVC
Onlus

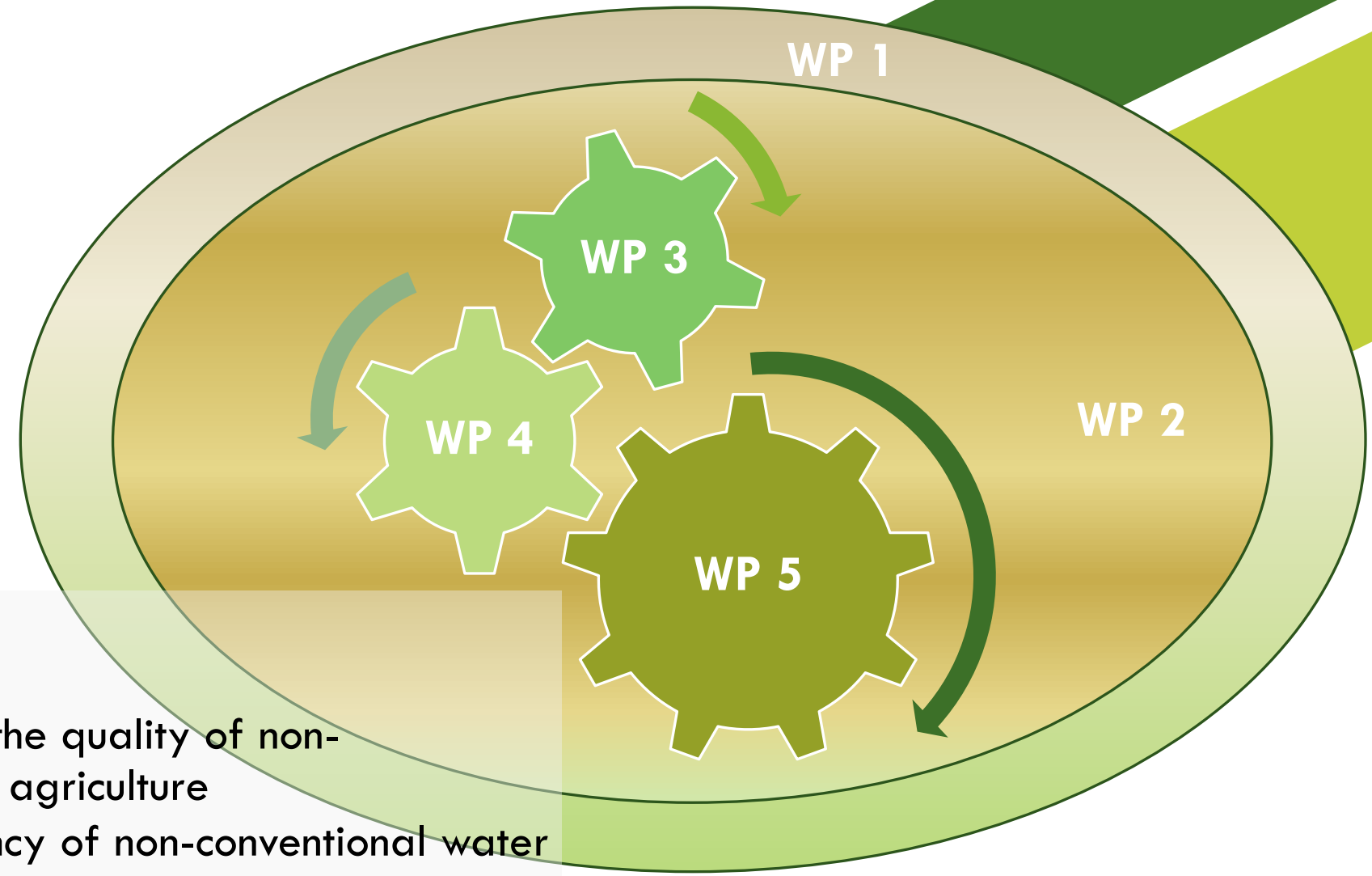
OVERALL OBJECTIVE

CONTRIBUTE TO INCREASE THE WATER AVAILABILITY FOR AGRICULTURAL PURPOSES THROUGH THE USE OF NON-CONVENTIONAL WATER IN ORDER TO REDUCE THE PRESSURE ON FRESH WATERS

SPECIFIC OBJECTIVES

- ✓ IMPROVE WATER USE EFFICIENCY OF NON-CONVENTIONAL WATER FOR IRRIGATION
- ✓ IMPROVE THE QUALITY OF NON-CONVENTIONAL WATER TO REUSE IN AGRICULTURE
- ✓ STRENGTHEN THE NON-CONVENTIONAL WATER GOVERNANCE BY DISSEMINATING AND CAPITALIZING INNOVATIVE AND TECHNOLOGICAL SOLUTIONS

WORK PLAN



- **WP1** - Management
- **WP2** - Communication
- **WP3** - Actions to increase the quality of non-conventional water used in agriculture
- **WP4** - Improve use efficiency of non-conventional water in agriculture
- **WP5** - Capacity building and exchange experiences

THE LIVING LABS APPROACH

Living Labs are real-world test environments that address certain areas (thematic as well as spatial) and target groups for enabling joint developments of tools and services.

The core element of every Living Lab is the network formed of public and private stakeholders who jointly develop and test new technological developments within the framework of an open innovation process (Wiederwald et al. 2017).

THE KNOWLEDGE APPROPRIATION MODEL

The adoption of innovations is critically built on processes of knowledge creation and learning.

The knowledge appropriation model connects the Individual learners to social groups or communities enabling also the development of their personal expertise

Both knowledge creation and learning are based on common practices that ensure adoption of innovations is successful, sustained and scaled

KNOWLEDGE APPROPRIATION PRACTICES

Create awareness

Build shared understanding

Adapt

Validate

LEARNING LABS IN MENAWARA

Demonstration fields equipped with effective irrigation technologies and techniques adapted to the local context and tailored to the use of treated wastewater (TWW) will act as “Living Labs” and “Learning spaces” for youths, technicians, water users’ associations and farmers

No. 45 farmers will be involved to irrigate no. 46.5 hectares using these irrigation technologies

Identification of the constraints/opportunities for a productive use of TWW IN Irrigated Agriculture

Design, equipment and operationalization of the demo sites

Evaluation of innovative irrigation trains impact on efficiency, productivity and groundwater

LEARNING LABS IN MENAWARA

Promoting

operative know-how exchange among the partners countries

dialogue among water authorities

cross border cooperation and information sharing

Identify and spread good practice

Secure know-how

Develop capability

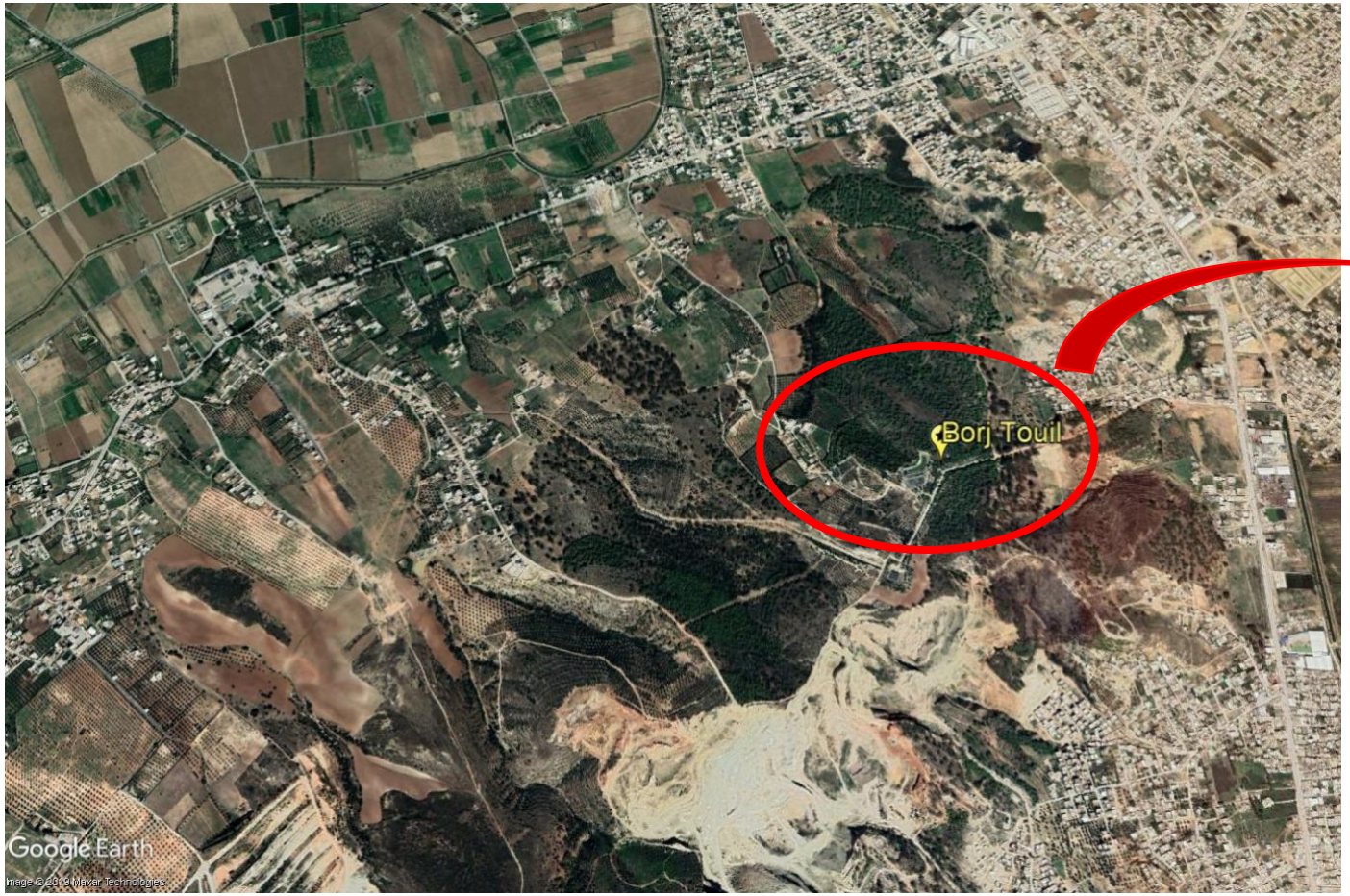
- organisational
- personal

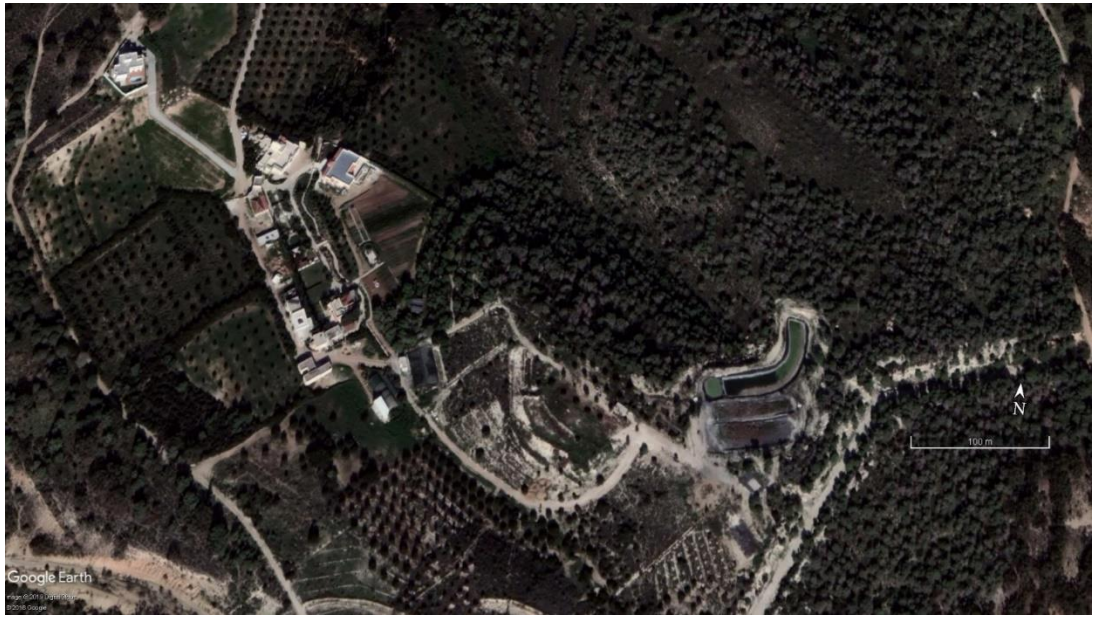
Learn/Teach

Adapt

Validate

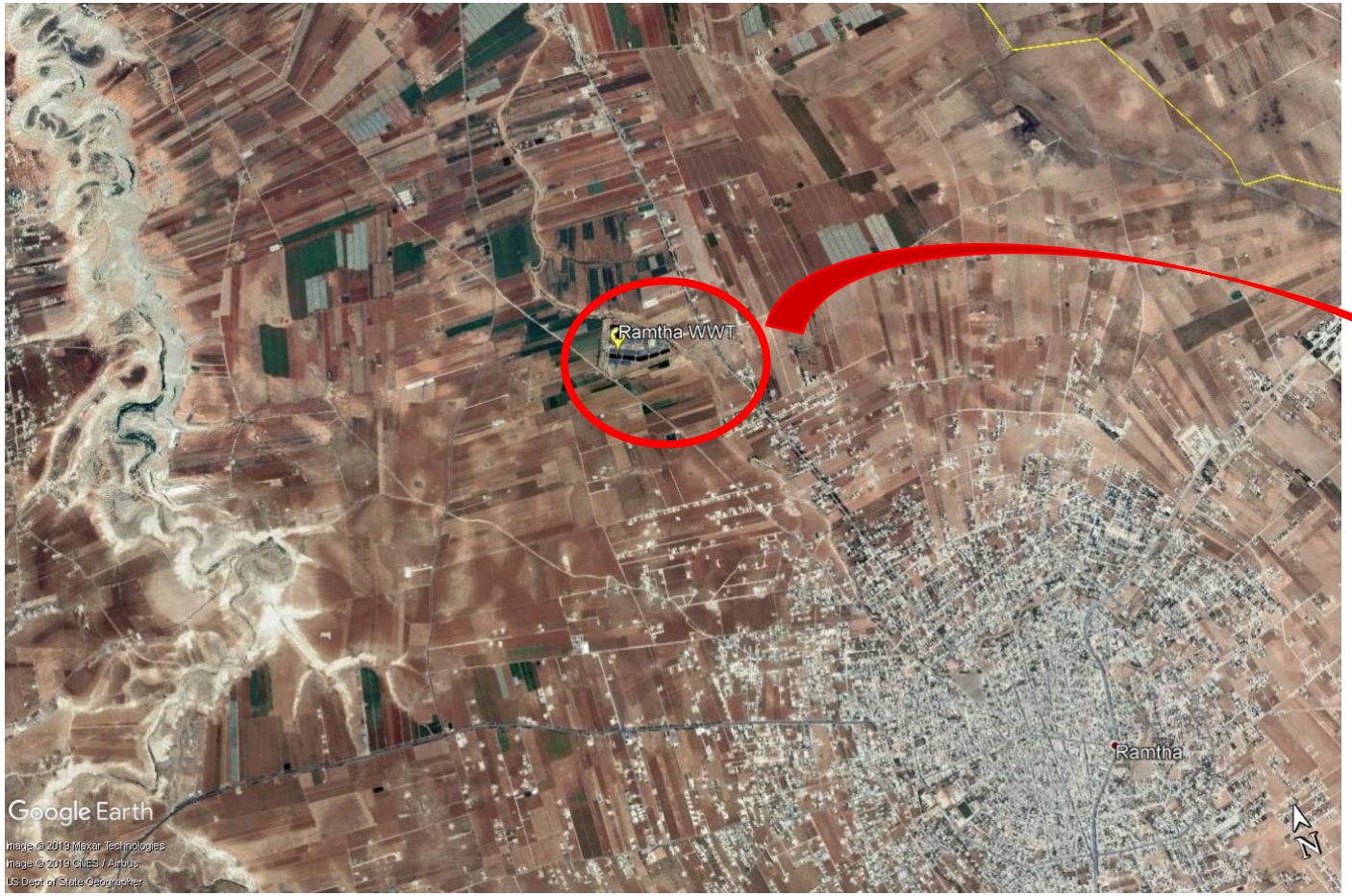
Tunisia (Borj Touil)





Tunisia (Borj Touil)

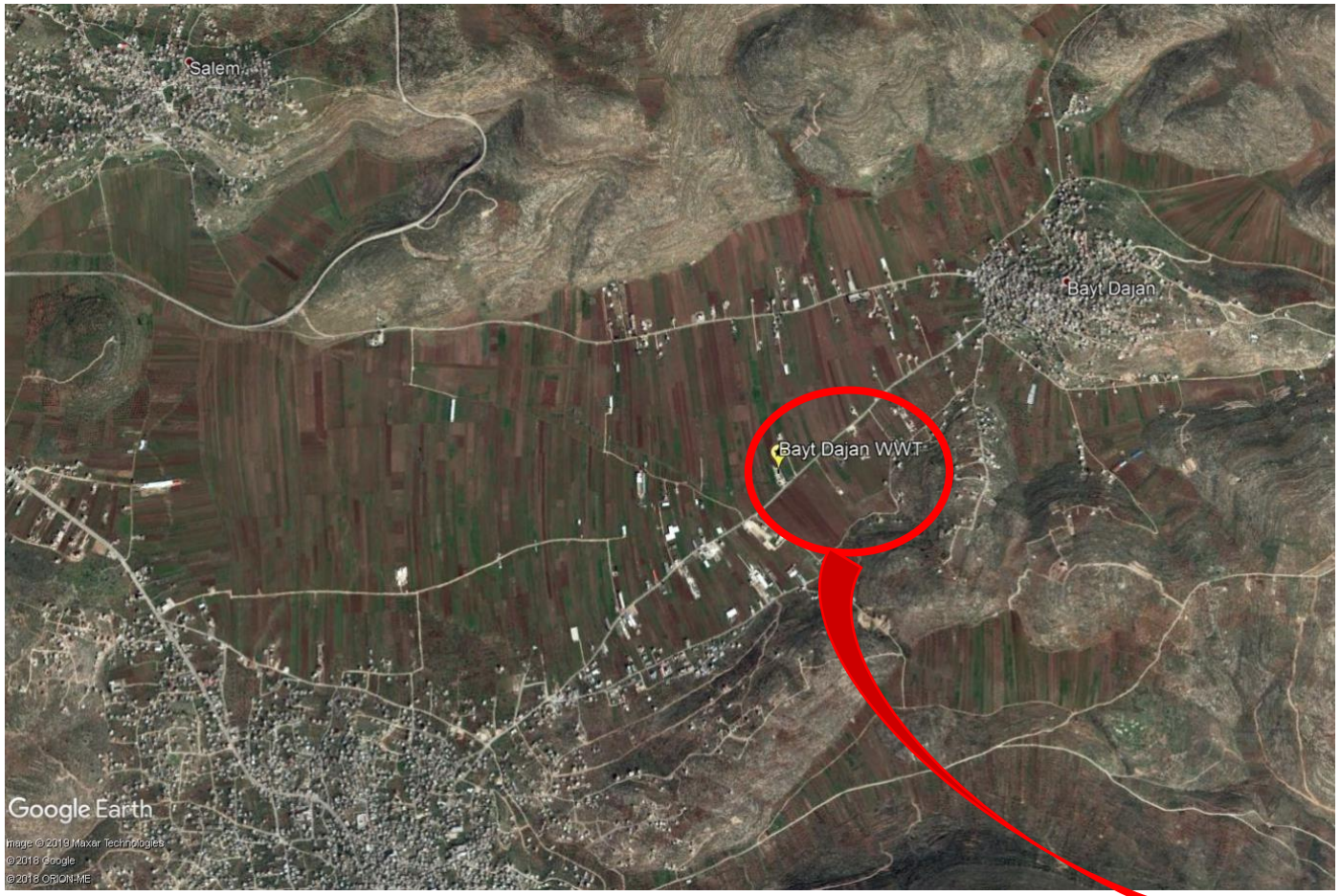
Jordan (Ramtha)



Ramtha is an agricultural area (wheat, barley, vetch, olive and fodder) located in Irbid Governorate, in the north of Jordan at the border with Syria.

Jordan (Ramtha)

Palestine (Bayt Dajan)



Located 10 km east of Nablus city (Nablus Governorate), at the edge of the Jordan Valley. The actual nearby land is cultivated with trees of olives, almonds, grapes and CITRUS

TARGET GROUPS AND FINAL BENEFICIARIES

TARGET GROUPS

- **45 farmer households** living in the different intervention areas using TWW to irrigate olives trees, fodders and ornamental and fruits plants
- At least **50 technicians** from local institutions
- At least **20** relevant local and national **authorities** involved in inter-/regional roundtables

FINAL BENEFICIARIES

Inhabitants of the involved areas (appx **260,000 people**):

4,200 people - PS; 120,000 – JO; 127,500- TN; 3,900 – IT; 2,300 - ES

EXPECTED RESULTS

Expected results and corresponding indicators are fixed by the ENI CBC MED programme

Expected result(s)	Expected result indicator(s)	Programme target values* *See Annex 2 of the JOP	Project target values
4.1.1 - Increased adoption of innovative sustainable water-efficiency technologies and systems in agriculture by public authorities, specialized agencies and other relevant stakeholders	4.1.1.A - Surface in ha of land irrigated with treated wastewater and non-conventional water or equipped with modern and efficient irrigation systems	150.0	**46.5**
	4.1.1.B - Number of measures and initiatives to showcase, exchange, test and transfer water management solutions to end-users in the agricultural sector in view of improving water use efficiency and quality and use of non-conventional water resources in agricultural practices	30.0	**14.0**

the indicator refers to surface area of agricultural land farmed by farmers **that do not own or rent more than 5 hectares of land** in order to focus on small-scale farmers

EXPECTED RESULTS

Expected results and corresponding indicators are fixed by the ENI CBC MED programme

Expected result(s)	Expected result indicator(s)	Programme target values* *See Annex 2 of the JOP	Project target values
4.1.1 - Increased adoption of innovative sustainable water-efficiency technologies and systems in agriculture by public authorities, specialized agencies and other relevant stakeholders	4.1.1.A - Surface in ha of land irrigated with treated wastewater and non-conventional water or equipped with modern and efficient irrigation systems	150.0	**46.5**
	4.1.1.B - Number of measures and initiatives to showcase, exchange, test and transfer water management solutions to end-users in the agricultural sector in view of improving water use efficiency and quality and use of non-conventional water resources in agricultural practices	30.0	**14.0**

The considered measures include: an **interactive platform**, **south-south** exchange of experiences and **training sessions**

THANK YOU!

Website:

www.iamb.it