WADIS-MAR
Water harvesting and Agricultural techniques in Dry lands:
an Integrated and Sustainable model in MAghreb Regions
a SWIM Project

WADISMAR recognizes the critical role that local government officials plays in carrying out European cooperation projects. Local authorities play an important role in local development and service delivery that contribute to the attainment of the international development strategies. The capacity building training aims at spreading the best practises achieved in the frame of WADIS MAR demonstration project and streghtening the officials' skills in the field of sustainable and integrated management of water resources and agriculture in arid and semi-arid regions.

SUB-MODULE			Lecture	N. PARTICIPANTS	N. HOURS	Place	Period
MODULE 1 Integrated agriculture and water resources management in arid and semi-arid areas and "best practices experiences"							
1.1 LAND REMOTE SENSING	1.1A. BASIC COURSE	Use of space-based satellite technologies to obtain information on environmental variables such as land-use and land-covering combination with other types of data, in order to produce information on changes in the Earth's surface and atmosphere that are critical for forecasting and responding to human welfare issues, such as food shortages and floods. The sub-module is divided in two parts: a theoretical basic course (24h) and a pratical advanced course (24h)	Maria Teresa Melis UNICA	13 (6Alg+7Tun) (8M+5F)	24	Tunisia	04-07 April 2016
	1.1B ADVANCED COURSE			14 (7Alg+7Tun) (9M+5F)	24	Italy	16-19 May 2016
1.2 GEO-STATISTICAL ANALYSIS AND Advanced in GEOPHYSICAL PROSPECTION WITH GEORESISTIVIMETER	1.2A. GEO-STATISTICAL COURSE	The geostatistical study is essential to give a geophysical and geological characterization modeling in general. The course provides a valuable assistance in data processing, integration of data from different sources and scales, quantification of spatial uncertainty and probabilistic risk assessment.	Enrico Guastaldi CGT	11 (6Alg+5Tun) (5M+6F)	24	Tunisia	23-26 May 2016
	1.2B. GEOPHYSICAL COURSE	The course provides a practical overview of geostatistical solutions applied to processing data from surveys, geological modeling and characterization of deposits and cases of environmental studies.	Tommaso Colonna CGT	12 (5Alg+7Tun) (11M+1F)	24	Tunisia	30 May - 2 June 2016
1.3 AGROMETEOROLOGY, WATER SAVING AND AGRONOMIC MANAGEMENT	1.3A. AGROMETEOROLOGY	Weather and climate information to enhance or expand agricultural crops and/or to increase crop production. The purpose of the course is to illustrate the interaction of meteorological and hydrological factors specific of the arid and semi-arid land on one hand and the agriculture on the other which encompasses horticulture.	Andrea Motroni ARPAS	10 (6Tun+4Alg) (6F+4M)	24	Tunisia	11-14 April 2016
	1.3B. WATER SAVING AND AGRONOMIC MANAGEMENT	The purpose of this course is to provide tools on water saving and management for horticultural and cereal crops in smallscale irrigation schemes in arid regions as adaptation strategies to increasing water scarcity. In particular, the course will show irrigation strategies to: save water in irrigated areas; reduce salt input and consequently reduce environmental degradation; improve water productivity.	Kamel Nagaz IRA	12 (6Alg+6Tun) (7M+5F)	24	Tunisia	18-21 April 2016
1.4 AGRONOMIC MODELING		This course aims to advance participants' knowledge, understanding and access to expertise, technologies, and services in the areas of agronomy. It includes basics of cultivation, crop growth and development, pests and diseases, and decision support systems based on crop growth models. The overall aim is to update technicians on research results related to modelling for crop management.	Cammarano Davide Hutton Institute	10 (8Tun+2Alg) (4M+6F)	24	Tunisia	2-5 May 2016
1.5 MANAGED AQUIFER RECHARGE SYSTEMS AND WATER HARVESTING TECHNIQUES	1.5A. MAR SYSTEMS	The purpose of this course is to transfer tools that can help to design Managed Aquifer Recharge (MAR) systems in the framework of the sustainable water management, especially in arid ennvironment. The course will show how the various types of recharge systems can be effectively applied. Moreover, the course aims to disseminate the best practices and success stories in the framework of water management in arid environment	Enrique Alvaro Fernandez Escalante TRAGSA	12 (5Alg+7Tun) (11M+1F)	24	Tunisia	16-19 May 2016
	1.5B WATER HARVESTING TECHINQUES	This course aims to transfer tools that can help to design water harvesting structures in the framework of sustainable water management in arid regions. The course will show modern and traditional water harvesting techniques and their effectiveness to agricultural purposes in water scarcity conditions	Mohamed Ouessar IRA	9 (5Tun+4Alg) (6M+3F)	24	Tunisia	10-13 May 2016
1.6 HYDRO-GEOCHEMICAL and ISOTOPIC INTERPRETATION, WATER FOR DRINKING PURPOSES	1.6 A Hydrogeochemistry	The characterisation, interpretation and understanding of groundwater geochemistry form are an essential part of the technicians background. The course aims to provide an advanced understanding of the core principles and topics of Hydro-geochemical and their experimental basis, with general principles set on the specific context. Classification and standards for drinking water. Health risks due to quantiative and qualitative issues. Prevention of diseas transmitted by water: Water Safety Plans; drinking water plant and descritpion of the main processes in the water treatment	Albert Gil and Manuela Barbieri UB	11 (3Alg+8Tun) (6M+5F)	24	Spain	23-26 May 2016
	1.6 B Application of environmental isotopes to Hydrogeology			14 (6Alg+8Tun) (6M+8F)	24	Spain	30 May - 2 June 2016
1.7 SWAT MODEL AND GROUNDWATER MODELING	1.7A SWAT MODEL	This course is designed to introduce new users to the SWAT model, review necessary and optional inputs, and familiarize the user with the ArcGIS interfaces. It is assumed that attendees have a working knowledge of ArcGIS. The workshop will not review basic concepts on ArcGIS usage prior to covering the SWAT/ArcGIS interface	Pier Andrea Marras CRS 4	10 (6Tun+4Alg) (5M+5F)	24	Italy	16-19 May 2016
	1.7B GROUNDWATER MODELING	The course is designed to introduce the participants to the concepts and applications of Groundwater modeling using MODFLOW. The development of a reliable and accurate groundwater model requires two components - a conceptual model and a numerical model. This course will provide lectures and practical exercises to introduce participants to the modeling process including conceptual model development, numerical model implementation, model calibration, and model predictions.	Pierluigi Cau CRS 4	10 (7Tun+3Alg) (3M+7F)	24	Italy	23-26 May 2016
1.8 ECONOMIC ANALYSIS OF WATER SUPPLY PROJECT		The aim of the course is to present the main principles, concepts, and procedures applied in the economic analysis of water supply projects. The course will be addressed to : defining the project rationale, objectives, scope, and geographical coverage; how to analyze and forecast the effective demand for project outputs; how to quantify the economic benefits and costs; how to identify the non-quantifiable effects of the project that may influence project design and the investment decision; how to calculate the economic internal rate of return and assessing the viability of the project; how to assess whether the project's net benefits will be sustainable throughout the life of the project.	Luciano Gutierrez UNISS	13 (5Alg+8Tun) (6F+7M)	24	Italy	2-5 May 2016
MODULE 2 Design and management of demonstrative actions within international cooperation projects for development							
1.9 PROJECT DESIGN AND IMPLEMENTATION PROCESS		The course provides practical skills in order to formulate project proposals that are economically, socially, politically and environmentally viable. It covers all the steps of project design: from the identification of the main problem to be addressed, to the planning of the project implementation, monitoring and evaluation.The course aims to give technical instruments to improve the quality of project proposals and provide assistance in their implementation.	Raniero Chelli UNIMED	13 (3Alg+9Tun) (6F+6M)	24	Italy	6-9 June 2016
1.10 FINANCIAL PLAN AND MANAGEMENT		The course provides the competences in the field of developing a budget (how to read and write a budget), the management of purchases and how to operate according to the rule of origin, how to analyze and understand the processes of local development.	Raniero Chelli UNIMED	10 (2Alg+8Tun) (6F+4M)	24	Italy	13-16 June 2016
1.11 ENHANCE LOCAL PEOPLE CAPACITY - CAPACITY BUILDING PROCESS		The course provides concrete measures to create an environment which encourages people to be involved. It includes techniques of social learning and stakeholders' inclusion, with further strengthening of human capacities through social participation and education.	Sghaier Mongy IRA	13 (7Alg+6Tun) (10M+3F)	24	Tunisia	16-19 May 2016