



**SWIM-SM IMPLEMENTATION REPORT**  
**ON**  
**ANCHORING THE UTILISATION OF THE MONEVA SYSTEM (FOR PARTICIPATORY IRRIGATION MANAGEMENT (PIM) AND IRRIGATION MANAGEMENT TRANSFER (IMT)) PROCESS IN THE TWO PILOT COUNTRIES (JORDAN AND TUNISIA)**

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V1	SWIM-SM IMPLEMENTATION REPORT ON ANCHORING THE UTILISATION OF THE MONEVA SYSTEM (FOR PARTICIPATORY IRRIGATION MANAGEMENT (PIM) AND IRRIGATION MANAGEMENT TRANSFER (IMT)) PROCESS IN THE TWO PILOT COUNTRIES (JORDAN AND TUNISIA)	Suzan Taha and Juan Antonio Sagardoy	Hosny Khordagui, and Vangelis Constantianos



## **The SWIM Programme (2010 – 2015)**

### **Contributing to Sustainable Water Integrated Management in the Mediterranean**

Funded by the European Commission with a total budget of approximately € 22 million, Sustainable Water Integrated Management (SWIM) is a Regional Technical Assistance Programme aiming to contribute to the effective implementation and extensive dissemination of sustainable water management policies and practices in the South-Eastern Mediterranean Region in view of increasing water scarcity, combined pressures on water resources from a wide range of users, desertification processes and in connection with climate change.

The SWIM Partner Countries (PCs) are: Algeria, Egypt, Israel, Jordan, Lebanon, Libya Morocco, the occupied Palestinian territory, Syria<sup>1</sup> and Tunisia.

SWIM aligns with the outcomes of the Euro-Mediterranean Ministerial Conferences on Environment (Cairo, 2006) and Water (Dead Sea, 2008) and also reflects on the four major themes of the draft Strategy for Water in the Mediterranean (SWM), mandated by the Union for the Mediterranean, namely: Water Governance; Water and Climate Change; Water Financing and; Water Demand Management and Efficiency, with particular focus on non-conventional water resources. Moreover, it is operationally linked to the objectives of the Mediterranean Component of the EU Water Initiative (MED EUWI) and complements the EC-financed Horizon 2020 Initiative to De-Pollute the Mediterranean Sea (Horizon 2020). Furthermore, SWIM links to other related regional processes, such as the Mediterranean Strategy for Sustainable Development (MSSD) and the Arab Water Strategy elaborated respectively in the framework of the Barcelona Convention and of the League of Arab States, and to on-going pertinent programmes, e.g. the UNEP/MAP GEF Strategic Partnership for the Mediterranean Large Marine Ecosystem (MedPartnership) and the World Bank GEF Sustainable Mediterranean.

The Programme consists of two Components, acting as a mutually strengthening unit that supports much needed reforms and new creative approaches in relation to water management in the Mediterranean region, aiming at their wide diffusion and replication.

The two SWIM Components are:

- A Support Mechanism (SWIM-SM) funded with a budget of € 6.7 million and
- Five (5) Demonstration Projects funded with a budget of approximately € 15 million

On the occasion of the 4th Steering Committee Meeting (Barcelona, 14-15 December 2014) of the EU-funded project Sustainable Water Integrated Management – Support Mechanism (SWIM-SM) the European Union officially announced that € 15 million were earmarked in 2014 to finance a SWIM II programme, due to start by the end of 2015. The focus will remain on promoting sustainable water management practices in the same nine Southern Mediterranean countries.

SWIM countries asked to have more actions on the ground and at the national level. This approach has been reflected in the 2015 project's Work Plan, with an increased focus on the national dimension, particularly through:

- Assistance in drafting national regulations for controlling groundwater artificial recharge;
- Support in establishing national water / aquatic environment prosecutors and magistrates systems;
- Help in anchoring regional monitoring and evaluation system for participatory irrigation Management (PIM) developed by SWIM-SM in the two pilot countries (Jordan and Tunisia)

For more information please visit <http://www.swim-sm.eu/> or contact [info@swim-sm.eu](mailto:info@swim-sm.eu)

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<sup>1</sup> In May 2011, the European Union decided to suspend all cooperation with Syrian authorities



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<sup>2</sup>Centre International de Hautes Études Agronomiques Méditerranéennes



**Disclaimer:**

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## List of Acronyms

CIHEAM	International Centre for Advanced Mediterranean Agronomic Studies
CRDA	Commissariats Régionaux au Développement Agricole (Regional Offices for Agricultural Development - Tunisia)
CWR	Crop water requirements
DG/GREE	Direction Générale Du Génie Rural Et de L'Exploitation Des Eaux
EC	European Commission
EGM	Experts Group Meeting
FAO	Food and Agriculture Organization
FR	Financial Resources
GDA	Groupement de développement Agricole (Agriculture Development Group – Tunisia)
GEF	Global Environmental Funds
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GWP-Med	Global Water Partnership – Mediterranean
HR	Human Resources
IMT	Irrigation Management Transfer
JCC	Jordan Cooperative Corporation
JVA	Jordan Valley Authority
KE	Key Expert
M&E	Monitoring and Evaluation
MAP	Mediterranean Action Plan
MED EUWI	Mediterranean component of the European Water Initiative
MIRRA	Jordanian non-governmental organisation
MONEVA System	Monitoring and Evaluation System
MSSD	Mediterranean Strategy for Sustainable Development
NGO	Non-Governmental Organisation
NKE	Non-key Expert
O&M	Operation and Maintenance
PCs	Partner Countries: Algeria, Egypt, Israel, Jordan, Lebanon, Libya, Morocco, Palestine, Syria and Tunisia
PDF	Portable Document Format
PI	Périmètres Irriguées
PIM	Participatory Irrigation Management
SWIM	Sustainable Water Integrated Management
SWIM – SM	Sustainable Water Integrated Management- Support Mechanism
UNEP	United Nations Environmental Programme
UNEP/MAP-GEF MedPartnership	Strategic Partnership for the Mediterranean Large Marine Ecosystem
US\$	Dollar of United States
USAID	United States Agency for International Development
WB	World Bank
WP1	Work Package 1
WUA	Water Users Associations



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## Executive Summary

The present report provides an overview of the main activities undertaken during the year **2015** in the SWIM-SM Work Package 1, Activity 1.2.8.5: “Anchoring the Utilisation of the MONEVA System (For Participatory Irrigation Management (PIM) and Irrigation Management Transfer (IMT) Process in the Two Pilot Countries (Jordan And Tunisia)”, undertaken under the framework of the EU-funded project Sustainable Water Integrated Management – Support Mechanism (SWIM-SM) project.

The **main objectives planned for 2015** were:

1. Refine and improve the M&E system that was developed during 2014 to monitor and evaluate PIM/IMT (now called the MONEVA) to incorporate the recommendations of the partners as a result of applying the system in pilot areas in Jordan and Tunisia.
2. Assist in anchoring the utilisation of MONEVAS in the two pilot countries as recommended at the regional M&E experts group meeting organized in Athens (November 2014). This was foreseen through:
  - a. Development of data collection and processing procedures and testing them in selected WUAs (see bullet b)
  - b. Expanding the application of the MONEVA to include all WUAs in a selected region within each pilot country (Jordan and Tunisia) and in one region in Jordan
3. Document the approach and the lessons learnt during implementation for potential replication within the same and/or in other countries.
4. Disseminate the report/findings and the system to the partner countries (and relevant regional organisations)

The **main results achieved during the reporting period** are briefly described below.

One of the major tasks of this period was the review and improvement of the MONEVA system. During the evaluation workshops of 2014, participants identified a number of improvements aimed to facilitate the use of the software. In consideration of these recommendations and after a careful review of the software SWM-SM prepared detailed Terms of Reference (TOR) for the subcontractor (CIHEAM - Bari) to undertake the revision. In this report, the main improvements introduced are described. The fact that the software must be available in English, French and Arabic and that the number of indicators is high, made the revision work very demanding in term of the human resources needed. Nevertheless the new beta version of MONEVA is now much more user friendly and respond to the languages requirements of the Region.

To assist the partners in the institutionalisation of the MONEVA system, two additional elements of support were provided involving the development of (a) procedures’ document called “Procedures and data collection forms” to facilitate the data collection in the field and (b) data processing file called “the MONEVA data processing” (Excel File) to facilitate the calculations of the variables needed by the MONEVA system, and ensure uniformity in the processing of the related data.. They were developed for the regional level (in Jordan) and the local level (in both Jordan and Tunisia), and disseminated to the respective levels during dedicated training sessions, in in both countries.

The expanded application of the MONEVA system was started in the second half of 2015. The main mechanism for dissemination were the training sessions held in Jordan and Tunisia. The training was intended to enable the implicated partners from the regional offices engaged in PIM/IMT and the Water Users Associations (WUAs) to use the refined MONEVA system and introduce them to the procedures for data collection, entry and processing forms in order to enable the institutionalization of the system in the two pilot countries. The participants included a large mix of stakeholders but the main recipients were the directly involved officers from the concerned regional office and the representatives of five selected WUAs.



The evaluation undertaken at the end of the training sessions indicated a high degree of satisfaction of the participants.

The training was followed with the testing of the procedures developed by SWIM-SM on the ground, and refining them to take into account the local specificities in each country. Intensive on-job training was carried out to coach the implicated partners on the newly developed procedures, and the standardised data processing files. Training on field measurements relevant to some indicators were also carried out. The refined system was also tested using data that was collected for 2014. This allowed scrutinisation of the results and re-programming by CIHEAM as applicable.

In November 2015, the self-evaluation workshops were carried out in Jordan and Tunisia to examine the results emanating from the MONEVA system, develop action plans, and draw lessons learnt as applicable to each country. The repetitive use of the system at the regional level in Jordan, also allowed to review/update the action plan developed during last year and track progress on its status of implementation.

To complement the dissemination activities undertaken in a Jordan and Tunisia, a short document describing the main characteristics of the MONEVA system was prepared. Highlights of this document are presented towards the end of the report, with concluding statements about the merits of the MONEVA and the support provided by SWIM-SM towards anchoring the utilisation of the system in the two countries.

Finally a road map containing the main steps that should be undertaken when initiating this activity in other countries or specific regions of a country are detailed, including a list of recommended operational steps to guide the interested countries in applying the system in pilot areas.





## 1 Background information

The development of the MONEVA system for monitoring and evaluating the Participatory Irrigation Management (PIM)/Irrigation Management Transfer (IMT) process was undertaken under the Support Mechanism (SWIM-SM) component between 2012 and 2015, in response to the SWIM project partner countries (PCs), and following a series of activities including an assessment of the status of Water Users Associations (WUAs) and close consultations with the partner countries through dedicated regional experts group meetings and subsequent surveys<sup>3</sup> made in the SWIM countries. The surveys' results evidenced the lack of a consistent monitoring and evaluation (M&E) approach to the PIM/IMT processes or its complete absence in some cases. Review of the main M&E systems used by international agencies for assessing IMT/PIM programs also demonstrated that general guidelines for carrying out monitoring and evaluation activities are abundant but when it comes to the IMT/PIM processes very few specific orientations are given.

In 2013, the project drafted the main components of the M&E system which were specifically addressing PIM/IMT. The draft was discussed with the partner countries through a regional meeting held in September of that year (Athens). In 2014, the development of the software (following the structure defined at the said regional meeting) was contracted to CIHEAM - Bari, which is part of the International Centre for advanced Mediterranean Agronomic Studies (CIHEAM) residing in Paris, and was thereafter tested in two pilot areas in Tunisia and Jordan following structured and intensive on-job training. Representatives of the government agencies at the National and regions' levels, as well as leaders of the participating WUAs,

*Photo 1: The regional Experts' Group Meeting (Athens; November 2014)*



expressed high satisfaction with the system. However, further improvements were recommended and recommendations for the consolidation of the system and anchoring its utilisation in Tunisia and Jordan was nearly unanimously endorsed by the partner countries during the regional meeting held in Athens In November 2014,

The present report provides an overview of the main activities undertaken during the year 2015. Essentially, the MONEVA system was improved and consolidated in a new beta version. Supporting documentation was prepared and refreshing training sessions were organized in Tunisia and Jordan and the system was tested in a larger scale and evaluations made. The results of the evaluations were highly satisfactory and the implementation of the system is expected to continue in the selected countries.

<sup>3</sup> See document: "Analysis of the responses to the questionnaires/checklists on the availability of data for the monitoring and evaluation of participatory irrigation management or irrigation management transfer programs in the swim project countries" available at <http://www.swim-sm.eu/> or contact: [info@swim-sm.eu](mailto:info@swim-sm.eu)



## 2 Objectives and expected results

Most of the activities undertaken during the year 2015 were aimed to build on the work that was undertaken during 2014 with the purpose of refining the M&E system (MONEVAS) and assisting in the institutionalization of its use in the two pilot countries; according to the countries' specific needs. Therefore the objective of 2015 activities were:

1. **Refine MONEVAS to incorporate the recommendations of the partners** as a result of applying the system in pilot areas in Jordan and Tunisia during the preceding year (2014).
2. **Assist in anchoring the utilisation of MONEVAS in the two pilot countries**
3. **Expand the application of MONEVAS to include all WUAs in a selected region** within each pilot country.
4. **Document the approach and the lessons learnt during implementation** for potential replication within the same and/or in other countries.
5. **Disseminate the report/findings and the system to the partner countries** (and relevant regional organisations).

In order to achieve the above objectives the staff of the SWIM-SM with the strong support of the pilot countries undertook numerous activities that led to the achievement of the results described in the following sections of this report.

## 3 Main results achieved

### Results related to the MONEVA system refinements

#### The MONEVA system reviewed and improved

During the first evaluation workshop, the MONEVA system has shown its capacity to identify activities and issues that need to be improved. In this sense, the MONEVA has fully achieved the primary purpose of its development. Participants in the first evaluation workshop expressed their satisfaction with the system that was an "eye opener" to identify clearly where corrective actions were needed. On the other hand, several recommendations were made to improve the MONEVA system during the evaluation workshop, which included:

- Several indicators for which the scoring criteria should be modified to account for the local experience.
- Definitions of some indicators should be changed to improve the understanding of the underlying concept.
- Detailed procedures for calculating some of the more complex indicators should be prepared for the pilot countries. These could also serve as good examples for replicating the activity in other countries or within the country.
- The Arabic version of the system should be completed and made available within MONEVA.
- The system should be also made available in French.

To satisfy these requests, the scope of the system refinements was prepared as part of the Terms of Reference for CIHEAM) - Bari; the main author of the previous version of the system. The TOR included detailed description of the improvements to be made based on the requests made by the participants of the pilot and project countries, and some other suggestions made by the SWIM-SM team. Frequent



consultations between the subcontractor and the SWIM-SM staff took place during the process. Below is a summary of the main improvements made in the MONEVA system:

a) Improved Installation of the software

In the previous version of the MONEVA, only one installation executable file was available containing all the programming for the three levels of users: central/national level (Irrigation Agency), regional level (i.e. the users at the regional offices directly working with the WUAs) and local level (WUAs). This made the file very large and every user had to install all the components of the programme even if not applicable to his/her level. In the new version of the system, these shortcomings have been overcome through the provision of two executable files: one to be installed at the national level and the other one at the regional/local level, thus making the executable files smaller and easier to handle while enabling them to communicate among each other; in terms of the ability to retrieve and transfer information among the three levels (national, regional and local)

Specific instructions were also added to the installation to ensure that some Microsoft files (dll libraries) that are necessary for the system's installation are installed on the computer of the user, with special instructions on how to install them.

b) Updating and completing the software in three languages: English, French and Arabic.

Besides the need for developing the MONEVA system in **English and French**, which are widely spoken in the Mediterranean region, the MONEVA system had to be available also in **Arabic as it is almost the only one spoken by many of the potential users** (farmers and others) of the system in the field.

Although the development of the Arabic version was initiated during the previous year (2014) the work could not be completed due to the continuous evolution of the system in English. Hence the development of the interface in Arabic had to be postponed to 2015. Now the MONEVA system has a solid version of Arabic that was revised by the technical staff of CIHEAM and SWIM-SM key expert to ensure that the technical terms are correctly expressed by translators. This will facilitate much its adoption in other countries of the Mediterranean region and other Arab speaking countries.

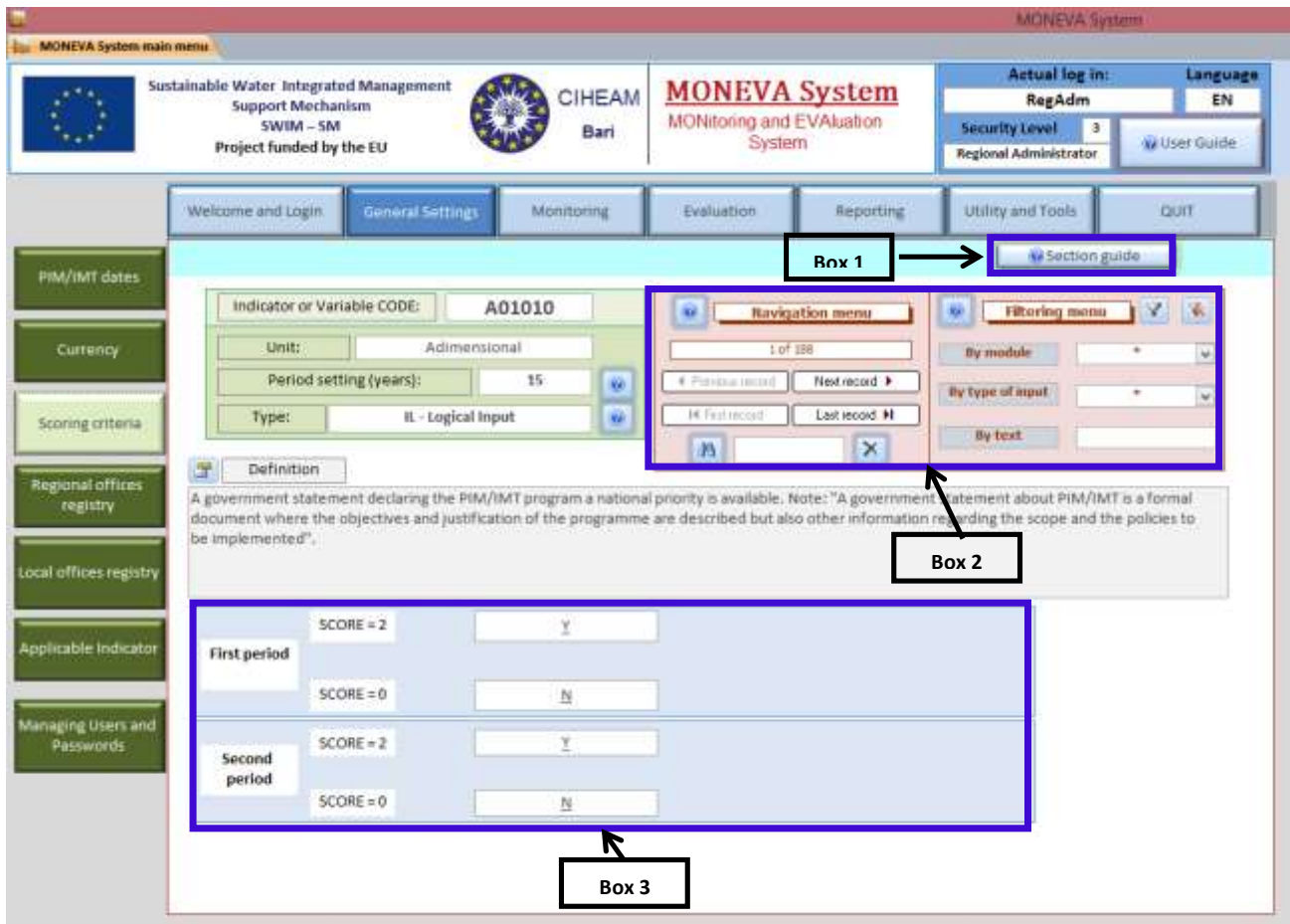
c) Improved retrieval of information

Figure 1 shows a screenshot of one of the screens of the MONEVA settings that permits the National Administrator to change the scoring criteria for any indicator. This feature was already available in the previous version but the retrieval of one specific indicator was not user friendly, i.e. if the user wants to change the settings of an indicator which happens to be at the end of the list (say in module D), he/she has to browse through all the indicators until the selected indicator is reached. The new version of the MONEVA now provides the user with a navigation menu to retrieve and modify the scoring criteria (See box 2 in figure 1 below). In addition, a filtering menu is now available for retrieving more easily indicators with some common characteristics (by module, type of input or by text). Likewise, these two features have been added in all menus where similar processes take place.

Figure 1 also shows the "scoring criteria" settings for an indicator (See box 3). Changing the scoring criteria is an extremely useful feature of the MONEVA system to adapt the indicators to the local conditions (See the MONEVA system - An M&E system for (PIM/IMT), available at [www.swim-sm.eu](http://www.swim-sm.eu)).



Figure 1 : Screenshot of the scoring criteria settings for an indicator illustrating the navigation and filtering menu



d) Updating and improved access to the User's guide:

All the improvements made in the MONEVA system were reflected in the User's guide in the three languages of the system. In addition, access to this User's Guide is now accessible from every section of the Menu. Box 1 of Figure 1 also provides an illustration of this improvement. In the upper right part of the screen, there is button called "Section guide" and by pressing it, a detailed guide of the section under use, will pop-up. This is also available for other menus of the system

e) Reduction of the number of Indicators:

During the evaluation workshops of 2014 the participants indicated the convenience of eliminating fifteen indicators for which the basic data were not available or those that would be difficult to retrieve. This was particularly applicable for the indicators related to the evaluation of the impact of the establishment and operationalisation of the WUAs. The revised list of indicators was provided to CIHEAM for its inclusion in the MONEVA refinements, as an additional improvement to the system during the current year.

f) Other improvements made:

The fact that the above improvements implied a complete revision of the programming of the system provided an opportunity to introduce other changes and improvements that were identified as desirable during the experience gained from the application of the system in the pilot areas during 2014. Such improvements included

- Improved reporting for the outputs and outcomes



- Improved management of the exporting of files generated by the system
- Simplified procedures for sending and retrieval of the national and regional settings
- Easier retrieval of stored monitoring data (Example: the monitoring forms (PDFs))
- Improved presentation of the evaluation menu with easier identification of the outcomes that are under evaluation

### Final selection of indicators to be used in each country

In close collaboration with the partners in the two pilot countries, the MONEVA system was customised at all levels to ensure its effective use in each country. This included final selection of the indicators that are considered more appropriate to the local conditions of each pilot country. This has resulted in further deactivation/de-scoring of 16 more indicators at all levels in Jordan and the de-scoring of four indicators at the local level in Tunisia. .

### Development of the procedures and data processing for MONEVA

#### **Background**

The application of the MONEVA during 2014 made it evident that some of the numerical indicators needed extra data (variables) which were not readily available at the national, local or regional levels. Hence, clear data collection, entry and processing procedures were required. To illustrate this situation, and taking the case of the “Relative Water Supply” indicator as an example, one of the variables needed for calculating this indicator is the average water requirements that are needed to grow the crops within the WUA service area. This value is compared with the amount of water actually provided to obtain the “Relative Water Supply” in percentage in order to give an indication of the water scarcity and the system’s capacity to satisfy the Crops Water Requirements (CWR). Most of the WUAs’ leaders do not have a clear notion about CWR in their area. However, they have good records of how much water they receive. Hence, it was necessary to develop a procedure to estimate CWR in each region based on the local experience and research data. Once such information is available, the WUAs are in a good position to enter the CWR values. Similar procedures have been developed for most of the numerical indicators to facilitate the collection of the data needed and their processing in order to arrive to the values of the variables required by the MONEVA System. It is obvious that with the progressive application of MONEVA, the need for such procedures will decrease but in the initial stages, they can provide useful support.

The following elements of support were developed, namely:

1. MONEVA data processing Files(Excel Files) at the **local level** (Jordan in English and Arabic, and Tunisia in French)
2. MONEVA data processing sheets (Excel File) at the **regional level** (Jordan only in both Arabic and English)
3. Procedures and data collection forms at the **local level** (Word document) (Jordan in English, and Tunisia in French)
4. Procedures and data collection forms at the **regional level** (Word document) (Jordan only in English)

#### **MONEVA data processing Files**

The MONEVA data processing files (local and regional) are Excel files where different sheets are included in order to facilitate and guide the user in the preparation of the data that need to be entered into the MONEVA system; each at his/her respective level. The aim of this support element is to ensure uniformity in the calculation of variables prior to their entry into the MONEVA system, and facilitate the intermediate calculations (often involving simple arithmetic calculations). Normally the responsibilities of “data



processing” using these files and “data entry” into the MONEVA system should be clearly designated to the “MONEVA officers” from the very beginning, at both the local and regional levels in each country.

As indicated above, this element of support has been developed for the Regional level in Jordan and for the Local level in both Jordan and Tunisia. **To avoid repetition of concepts** only one of them (local level) will be described here, since the same concept and approaches apply to both of them. Below is a description of the sheets that are contained in the MONEVA data processing file at the local level (Table 1).

Table 1: “Moneva Data Processing (Local Level).Xls” file with the main calculation sheets and their description

Category	Name of sheet	Description
Main sheets	WUA fixed info (Jordan and Tunisia)	This sheet includes all the <b>fixed information about the WUAs</b> that rarely changes. It represents a stock of fixed information for the WUA under consideration which is either necessary for the intermediate calculations (Example on such information is the irrigable areas) or which needs to be entered into the MONEVA system (Examples: WUA Name and code, type of WUA, date of establishment, date of transfer agreement, the agro-climatic region in which the WUA is located, etc.).
	Input2 MONEVA (Jordan and Tunisia)	In this table, all the numerical variables/sub-variables and indicators that require calculations are listed here. Two types of variables/sub-variables and indicators are distinguished here: <ul style="list-style-type: none"> <li>- Those that require direct data entry using logbooks available at the regional office or WUAs, and</li> <li>- Those requiring more complicated processing.</li> </ul> The user is guided in each case as to what he/she needs to do (See Figure 2). In case the variable/sub-variable/indicator requires complicated processing, he/she is instructed to fill the related cells in the “Processing” sheet with data, and is forwarded to those cells through a mouse click. Data entered in the “Processing” sheet (See below) allow the automatic calculations of these variables/sub-variables and indicators. Once all data are entered, the results available in this sheet can be transferred directly to the monitoring data of MONEVA
	Processing sheets (Jordan and Tunisia)	These sheets contain all the data that need to be entered for <b><u>specific numerical indicators (that require complicated calculations)</u></b> . Once relevant data is entered, the calculations are automatically undertaken in the processing sheets. <b><u>In the case of Jordan</u></b> , since a lot of the required data reside in <b><u>raw</u></b> Oracle database format (in the so-called Water Management Information System (WMIS) available at JVA), a script was developed to extract these data from the WMIS into text files; each file corresponding to the calculation of a specific variable/indicator for a given year. The said files were



Category	Name of sheet	Description
		thereafter linked through visual basic (VB) to the “MONEVA Data Processing” file. In order to execute the VB program, the user would just need to click on the indicator/variable under consideration and the results of the processing of the raw data get stored in a specific processing sheet, named the “WMIS results”.
Complementary sheets	Water Needs	This table provides a standardised calculation of the <b>average Crop Water Requirements (CWR)</b> for the pilot region under consideration in the case of Tunisia. In the case of Jordan where the WUAs cover only four climatic regions, the table calculates the CWRs for <b>every region of the Jordan Valley</b> . By inputting the data corresponding to the Region where the WUA is located into the ‘WUA fixed info’ sheet, the specific CWR of a given WUA will be estimated. In the case of Tunisia, all the WUAs that fall within the central east region of Tunisia can make use of this sheet.
	Local all	This is a <b>reference table</b> containing all the indicators at the local level and other details. <b>Normal users would not need to use it at all</b> . Advanced users may use it to consult specific details of a variable or indicator.

Figure 2: Screen shot of the input 2 Moneva sheet

Year	2014					
Variable Code as applicable	Frequency	Unit	Definition English	Definition Arabic	Formula/Value as applicable	Type of Entry
C03021	12	m <sup>3</sup> Ha	Planned water allocation (at the head of the system) of last year expressed	كميات المياه التي تم التخطيط لتوزيعها (على رأس نظام الري) للعام الماضي ب م <sup>3</sup> /ها.	#DIV/0!	Formula - معادلة
C03021.1	12	%	% Allocation (last year)	نسبة التزويد المائي (خلال العام الماضي)	100%	Data entry - إدخال المعلومات
<a href="#">C03072</a>	888-12	m <sup>3</sup> Ha	Estimated annual crop water requirements in the area or region where the WUA is located expressed in m3 ha.	الاحتياجات المائية السنوية المقدرة للمحاصيل المرورية ضمن المنطقة أو المساحة المخدومة من قبل جمعية مستخدمي المياه (م <sup>3</sup> / هكتار).	#DIV/0!	هذه الخانة يتم تحديثها تلقائياً عند الحصول على المعلومات المرتبطة بها من مديرية التحكم (WMIS). انقر على المتغير C03072 لتحديث المعلومات للعام قيد النظر.
<a href="#">C03023</a>	12	m <sup>3</sup>	Total amount of water received by the WUA at the main intake(s) and distributed during last year through pressurised system expressed in m3.	إجمالي كمية المياه التي تلقتها جمعية مستخدمي المياه على المآخذ الرئيسية (المآخذ الرئيسية) والتي وزعت خلال العام الماضي من خلال نظام الري المضغوط (م <sup>3</sup> ).	3573763.2	هذه الخانة يتم تحديثها تلقائياً عند الحصول على المعلومات المرتبطة بها من مديرية التحكم (WMIS). انقر على المتغير C03023 لتحديث المعلومات.
C03024	888	Ha	Irrigable area: This is the maximum area that can be irrigated within the WUA irrigation scheme if there no limitation of water supply. Note: It is calculated by summing the net irrigable area of all farms inside	المساحة القابلة للري: هي الحد الأقصى للمساحة التي يمكن ريها ضمن مخطط الري التابع لجمعية مستخدمي المياه في حال لم يكن هناك أي قيود على كميات التزويد المائي. ملاحظة: يتم احتساب ذلك عن طريق جمع صافي المساحة القابلة للري لجميع المزارع	1026	Formula - معادلة يتم تحديثها فقط بعد إدخال المساحات القابلة للري في ورقة "المعلومات الثابتة" WUAFixedInfo". انقر هنا لإدخال تلك المعلومات في الورقة المذكورة
<a href="#">C03041</a>	12	m <sup>3</sup>	Total volume of water actually received at the main intake(s) during the peak month of demand of last year expressed in m3	إجمالي حجم المياه الذي تلقتته كل المآخذ الرئيسية خلال شهر ذروة الطلب في العام الماضي (م <sup>3</sup> )	363398.4	هذه الخانة يتم تحديثها تلقائياً عند الحصول على المعلومات المرتبطة بها من مديرية التحكم (WMIS). انقر على المتغير C03041 لتحديث المعلومات للعام قيد النظر. Automatic update upon

### Procedures and data collection forms

In general, Excel files are not very suitable for long text descriptions and for this reason many descriptive details have been avoided in the “MONEVA Data Processing” files in order to concentrate on numerical information and calculations. Hence, the user may find that some more detailed explanations are needed to understand how the data will be collected and processed.



With this purpose, the “Procedures and data collection forms” were developed as two Word Documents reflecting the required procedures to collect and process data at the regional and local level; respectively). The said documents complement the Excel Tables 'MONEVA Data Processing' files discussed above at the corresponding levels, where all the numerical variables to be entered in the MONEVA monitoring menus, are listed in the “Input2MONEVA” sheet. Some of the values to be entered are simple and can be easily filled by the users. However, other values are more complex requiring some intermediate calculations or clarifications. These documents are precisely addressed to these more complex variables by providing guidance on how to collect them.

In order to develop these procedures, SWIM-SM engaged in the identification of data that are required by the MONEVA system but are not being collected by the partners<sup>4</sup> implicated in the pilot implementation during 2015. Data collection forms were hence developed and integrated to the extent possible with existing data collection forms and procedures, otherwise new stand-alone forms and procedures were introduced. This involved in the case of Jordan, the development of eight new procedures (addressing a total of 14 data variables) and the refinement of 2 existing procedures (addressing some ten data variables). The respective numbers for Tunisia is 10 new procedures (including intermediate tables for daily and monthly data). At the regional level, a total of 10 procedures were introduced addressing some 20 variables (Jordan only)

Below is a summary of the procedures developed

**At the local level:**

1. Procedures for measuring flows and pressure at the upper and lower turnouts. Such procedures are necessary to enable evaluation of the equitability of distribution of irrigation water within the area serviced by the WUA (Jordan and Tunisia). Some adjustments have been introduced to the procedures in the case of Tunisia given the time and human resources required for the measurements and the losses in water that have been recorded.
2. Procedures to carry out surveys to measure the degree of farmers’ satisfaction with the WUA services and performance with respect to the uniformity of the flow & pressure, the operation and maintenance of the pressurised system (Jordan and Tunisia), to enter the data and process them according to the MONEVA requirements
3. Same as above but for surveys to measure the degree of satisfaction of the government staff with respect to the WUA performance (Jordan and Tunisia)
4. Procedures that introduces all the elements of the costs that should be included when determining the annual costs of the WUAs including “personnel costs”, “maintenance costs” “direct maintenance costs” and “costs of repairs due to illegal use” to enable improved documentation of such costs (Jordan and Tunisia), being essential to ensure the financial viability of the WUA. The procedures include data log forms on a daily basis, and processing of such data on a daily and monthly basis to obtain annual costs.
5. Procedures to collect, and process on-farm data in order to assess the impact of the WUAs establishment on crops productivity, crop diversification, level of investment in on-farm technology, agricultural production, etc. (Jordan and Tunisia)

**At the regional level:**

1. Assessing the degree of effectiveness of coordination among the institutions participating in PIM/IMT program in a region. The procedures is based in collecting the opinion of selected regional officers about the effectiveness of the coordination among the participating institutions.

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<sup>4</sup> . These are the five Water Users Associations selected in Jordan and Tunisia, in addition to the regional office in Jordan. (See section...for the WUAs....)





2. Estimating the annual amount of money allocated by the irrigation agency and cooperating institutions (including donors) for the planning and implementation of the PIM/IMT during last year in your region. This procedure requires the determination of two variables: one is the annual amount of salaries allocated by the irrigation agency and the other is annual amount of money allocated by the donors for the planning and implementation of the PIM/IMT during last year.
3. Assessing the annual financial allocation provided last year for the rehabilitation and/or improvement of the irrigation systems to be handed over to the WUAs of one region.
4. Assessing the number of staff working in the Irrigation Agency of the staff in the regional office fully dedicated to the O&M of the irrigation system during last year and at the starting date of the PIM/IMT.
5. Assessing the number of training days for the staff of the support unit at the regional office during last year and also for the leaders of the WUAs and staff including the number of courses in which they have participated.
6. Checking the number of accounting systems that were installed (and planned to be installed) in the WUAs of the concerned regional office.
7. Assessing the number of WUAs, where the evaluation of the rehabilitation needs has been carried out up to last year and the number of WUAs where the rehabilitation works were planned to be completed last year and the number of those actually completed last year in one region

**The above procedures were documented in two separate Word Documents.** The documents are a complement to the Excel files 'MONEVA Data Processing' files referred to above. The user may refer to the more detailed explanations set out in the above mentioned documents in order to understand which data will be collected, the methodology for data collection, when should the measurements be taken or data be collected, where it will be entered and how it will be processed (See “SWIM-SM GUIDING RECOMMENDATIONS FOR THE APPLICATION OF THE MONEVA SYSTEM TO MONITOR AND EVALUATE THE PARTICIPATORY IRRIGATION MANAGEMENT (PIM) AND IRRIGATION MANAGEMENT TRANSFER (IMT) PROCESS IN OTHER COUNTRIES BASED ON ITS APPLICATION IN TWO PILOT COUNTRIES (JORDAN AND TUNISIA) – Annex 7 and Annex 8, available at [www.swim-sm.eu](http://www.swim-sm.eu))

The said documents are structured in a consistent manner for all the variables analysed and covers the following four steps:

1. **The “Process” table.** It describes the main characteristics of the procedure and provides guidance with respect to the methodology to be used for “data collection”/“measurements”, the data to be collected and some other descriptive aspects of the process.
2. **Tasks table.** It provides the sequence of the tasks to be undertaken, when and by whom. The last 2-3 rows of the table provide guidance regarding the forms to be used and where to find them in the document.
3. **Examples of the forms to be used.** In the most general case three forms are needed, namely:
  - a. **Data collection forms**, which are necessary to collect the information in the field. A typical example of such forms is the questionnaires to be used to collect the views of the farmers regarding their degree of satisfaction with respect to some activities of the WUA (maintenance, operation, etc.). Examples of such a form are presented with sample data to clarify how they must be filled by the users (See table 2 below)

*Table 2: Example of the data collection form to survey the degree of farmers’ satisfaction of the WUA services and performance - related to variables: c04061, c04062, c05060, c05070 and c07070*

WUA Name	WUA Code		Date
Location of the farm unit	Lower turnout?	Upper turnout?	Middle turnout?
		Yes	



Variable	Object of evaluation	Degree of satisfaction <sup>5</sup>		
		Satisfied	Medium satisfied	Not satisfied
C04061	To what extent you are satisfied with the uniformity of the flow in the pressurized system?	Yes		
C04062	To what extent you are satisfied with the uniformity of the pressure?		Yes	
C05060	To what extent you are satisfied with the operation of the irrigation system?			Yes
C05070	To what extent you are satisfied with the maintenance of the irrigation system?		Yes	
C07070 <sup>6</sup>	To what extent you are satisfied with the performance of the WUA?		Yes	

Source: Modified after “SWIM-SM MONEVA Procedures and Data Collection Forms at the Local Level”

- b. **Data entry and data processing forms:** Sometimes the data collected can be entered directly into the “data collection form” for further processing (See table 3 for an example). However in other cases such as the farmers’ satisfaction questionnaires, the collected individual responses have to be entered first into data entry forms especially designed to allow grouping of the responses (into for example: “the Number of farmers who were satisfied, medium satisfied, or not satisfied with the WUA performance”) and further consolidation of the views of the consulted farmers (See table 4). The document also provides examples on such forms which are illustrated with some fictitious data for better understanding of the process. In this regard, the user has two possibilities: either to process the collected data manually and directly enter the results into the MONEVA system, or to enter the collected data in the “MONEVA Processing file” where the same forms are included in the sheet “Processing”, but with the facility that the required calculations are done automatically in Excel.

Table 3: Example of data collection and processing form for variable c04041: average flow at the lower turnouts in pressurised irrigation systems

WUA Name	WUA Code			Year
<b>Name of lateral selected</b>	Lateral 1	Lateral 2	Lateral 3	Add more laterals if necessary
<b>Number of turnout</b>	21	23	17	
<b>Date of measurement No 1</b>	30/09/2015	30/09/2015	30/09/2015	
<b>Date of measurement No 2</b>	30/10/2015	30/10/2015	30/10/2015	
<b>Date of measurement No 3</b>	30/11/2015	30/11/2015	30/11/2015	
<b>Time of measurement No. 1</b>	13:30	13:30	13:30	
<b>Time of measurement No. 2</b>	13:30	13:30	13:30	
<b>Time of measurement No. 3</b>	13:30	13:30	13:30	
<b>Flow measurement No. 1 (l/s)</b>	12	8.5	10	
<b>Flow measurement No. 2 (l/s)</b>	13	9	8	
<b>Flow measurement No. 3 (l/s)</b>	10	10	7	
<b>Average flow per lower turnout in each lateral (l/s)</b>	<b>11.67</b>	<b>9.17</b>	<b>8.33</b>	

<sup>5</sup> Enter “Yes” under the answer that represents most your degree of satisfaction of the respective WUA service area

<sup>6</sup> To be included in the survey every three years



<b>C04041: Average flow for the selected lower turnouts (l/s)</b>	<b>9.72</b>
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Source: Modified after “SWIM-SM MONEVA Procedures and Data Collection Forms at the Local Level”

4. **The full set of data collection forms.** These are presented in a dedicated annex at the end of the document. Here the same forms that were described in the examples are included without any data and ready for use in the field once printed and distributed.

The “Procedures and data collection forms” document does not only provide understanding on how to undertake some calculations, but also provides a set of standard forms for the collection of data at the field and standardises the data collection procedure. If the instructions are followed, there is the guarantee that the data would be comparable and consistent, being collected with the same methodology. Table 3 above illustrates one of the forms used for determining the average flow at the lower turnouts in pressurized pipes with illustrative data entered. The text of the “Procedures and data collection forms” document further explains how to select the laterals and how and when to undertake the measurements. As the example illustrates, the calculation involved are very simple but some of the field staff may need this guidance.

The variable calculated in table 3 above (9.72 l/s) needs to be inputted in the MONEVA system as well as the corresponding flow in the upper turnouts. Then, the MONEVA system will calculate an indicator that reflects the equality of the water distribution within the irrigation system. Depending of the scores assigned to this indicator the WUA will get 2, 1 or 0 points for the resulting value in the evaluation for this specific indicator.

As indicated above, the same forms (without values) are also included in the “processing sheet” of the “MONEVA data processing” file but without any detailed explanations. Once the user is familiar with the procedures he/she can go directly to the “processing sheet” and enter the information there. In this regard, the procedures provide an initial support that once users are familiar with the system, they may not need to use, or they may only sporadically consult. However, in WUAs where no computer is available the procedures may remain an essential tool to undertake the calculations in a more traditional fashion.

Table 4: Example of the data entry form to enter and summarise the results of the “Farmers satisfaction survey” related to variables: c04061, c04062, c05060, c05070 and c07070

Farmer No.	Location of the farm unit (upper, lower, middle)	Degree of satisfaction with				
		The uniformity of the flow in the pressurised system?	The uniformity of the pressure?	The operation of the irrigation system?	The maintenance of the irrigation system?	The WUA performance <sup>7</sup>
1	Upper	2 <sup>8</sup>	2	2	2	2
2	Upper	1 <sup>9</sup>	1	1	1	1
3	Upper	1	1	1	1	1
4	Lower	0 <sup>10</sup>	0	0	0	0
5	Upper	2	2	2	2	2
...	...	...	...	...	...	...
40	Lower	0	0	0	0	0
No. of farmers who are satisfied (2)		<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>
No. of farmers who are medium satisfied (1)		<b>20</b>	<b>20</b>	<b>20</b>	<b>20</b>	<b>20</b>

<sup>7</sup> To be collected every three years

<sup>8</sup> Satisfied

<sup>9</sup> Medium Satisfied

<sup>10</sup> Not Satisfied



No. of farmers who are not satisfied (0)	10	10	10	10	10
Total No. of farmers surveyed	40				

Source: Modified after “SWIM-SM MONEVA Procedures and Data Collection Forms at the Local Level”

The “MONEVA processing sheets” together with the “Procedures and data collection forms” were developed for both the local and regional levels. They were tested / refined to accommodate the local and regional conditions in Jordan after getting translated into Arabic.

In Tunisia, the English version of the procedures and data processing files; reflecting the local level only were reviewed and are now available in French after their customisation for the case of Tunisia.

All documents/files were disseminated to their respective levels during the training sessions, which are further discussed in the following section.

### Expansion of the application of the MONEVA System

During 2015, the pilot experience in Jordan targeted one of the regions that were implicated in the pilot implementation of the M&E system in 2014 (Karameh Directorate (now known as South Shuneh Directorate)) in addition to all the WUAs<sup>11</sup> located within that region: Kafrein WUA, Pump 81 WUA, Pump 91 (Baladna) WUA, Pump 95 WUA and Rama WUA.

In Tunisia, since PIM/IMT has already ended, the role of the regional offices in the PIM/IMT process has subsided, while the need to monitor WUAs still persists. Accordingly the pilot experience in Tunisia was limited to the local level only, involving (due to time constraints) only five water users associations that were selected within Sousse CRDA. These are: GDA Baloum, Chieb, Chott Mariam, Chott Rumman and Sidi Said.

Once the new version of the MONEVA system was developed and the support elements (The “MONEVA processing sheets” together with the “Procedures and data collection forms”) completed, the expanded application of the MONEVA system was started in the two countries using the refined version of the system (Beta version).

The main tasks that were undertaken in this regard were the following:

- 1) Organised and conducted structured training sessions in Jordan and Tunisia during end of July and beginning of August of 2015.** The sessions were organised in close coordination with the focal points of the pilot implementation in the two countries. The training course was structured in two parts in order to achieve the course objectives:

*Photo 2: Upper - Training sessions in Tunisia and in Jordan (Lower) (July and August 2015; respectively)*



<sup>11</sup> Subject to the provision that they are servicing more than 100 hectares, since the MONEVA is applicable only to medium to large sized WUAs.



**Part I: Introduction to beta version of the MONEVA system (two days)**, whereby the national and regional components of the refined version of the MONEVA system was introduced to the respective partners who participated in the pilot implementation of the M&E system during last year (2014). The local modules were also introduced to the relevant WUAs staff with the participation of the national and regional staff who should assist the WUAs in the application of the system.

**Part II: Training on the institutionalization of the MONEVA System (1 day)**: This entailed the introduction of the data collection/entry/processing procedures to all partners at the local level in Tunisia and at both the local and regional levels in Jordan, with the aim to assist them in the institutionalisation of the system. .

In the case of Jordan, and in order to maximize the dissemination of the system, JVA decided to invite also the following to the training:

- All the O&M directors of the regional offices
- All the officers engaged in PIM/IMT at the regional level
- The Information and Technology (IT) specialist who are mandated to provide IT support to the users.
- Donors (GIZ representative) and projects (USAID/ Methods for Irrigation and Agriculture (MIRRA<sup>12</sup>) active in PIM/IMT

The training events also raised considerable interest among other SWIM countries, whereby Palestinian senior and technical staff nominated by their country participated in the event of Jordan. Egypt also requested to send a large representation but the EC limited the participation to 2 members. Due to bureaucratic difficulties, the participation of the Egyptian delegation was in the end not possible.

**2) Assisted the partners in the implementation of the new/revised procedures and in the application of the MONEVA System using 2014 data.** Again the implementation involved the selected WUAs in Tunisia and both the selected WUAs and regional office in Jordan.

The above entailed the following:

#### **I. General**

- **Installation of the MONEVA at the national level** and customisation of its settings using the applicable list of indicators and scoring criteria that was developed for each country (**See section: Final selection of indicators to be used in each country**).
- **Installation of the MONEVA at the regional level** and importing of the national MONEVA settings to the regional level.
- **Installation of the MONEVA (PDF modules) at the local level**

#### **II. At the Local Level (Jordan and Tunisia)**

- **Development of an implementation work plan**: The proposed work plan was jointly discussed in dedicated meeting with **the M&E focal point** in both countries. The **output of the meetings** included:

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<sup>12</sup> MIRRA is a Jordanian non-governmental organisation which aims to support the development of the agricultural sector in Jordan and in its neighbouring countries (Palestinian Territories, Lebanon, Iraq, and Syria) by being an operator on development projects and by performing consultative missions in the domains of agriculture and irrigation.



- ✓ Designation of the **national and regional officers** who will be working closely with SWIM-SM in order to assist the WUAs in the application of the new procedures and the MONEVA system,
- ✓ Identification of who will be doing what and when.
- ✓ Agreement on the optimal way to conduct the field measurements and to train on the new procedures. A combination of group and individual training was adopted.
- ✓ Agreement on the group training dates
- **Dedicated field meetings with the WUAs** in cooperation with the designated national and regional officers with the objective to:
  - ✓ Select the MONEVA Officer in each WUA
  - ✓ Revisit with the relevant WUA staff the data collection forms and procedures on which they were trained
  - ✓ Define the responsibilities for each form/procedure
  - ✓ Define the scope of Work for the MONEVA Officer in the WUA ([See Annex 1](#))
  - ✓ Designate people from the WUA for field work and measurements

*Photo 3: Upper - On-job training in GDA Chott Meriam in Tunisia (October 2015). Lower - Selection of farm turnouts in JordanWUA's Monitoring directorate (September 2015)*



- ✓ Select Regional Officers to provide assistance to the WUAs during the application of the new procedures
- ✓ Select (1) turnouts for flow and pressure measurements, (2) targeted farmers in the upper, middle and lower turnouts to whom the satisfaction questionnaires will be distributed and (3) Government staff to be targeted by the questionnaire
- ✓ Discuss the proposed schedule for field measurements **based on the water rotation (days and times during which water will be distributed to the selected lines)**
- ✓ Arrange for the provision of **technical assistance from the regional office and logistic support for the field measurements** (availability and mobilisation of measuring devices and tools)
- ✓ Discuss and finalise the proposed schedule for the collection of data for 2014 and fix the dates based on the availability of the WUA staff and the regional and national officers.



- **Flow and pressure measurements followed by on-job training for the WUA staff** to fill related data collection forms, enter and manually process the measurements' data.

*Photo 4: Upper- Flow and pressure management in Tunisia. Lower -On-job training for the application of SWIM-SM Procedures(October 2015)*



- **On-job training for the application of the remaining procedures.** This has also resulted in further refinement of the procedures and the related SWIM-SM documentation based on the local conditions
- **Group trainings for all the WUAs on the data processing** involving also population of the MONEVA with 2014 data
- **Sending the monitoring data to the regional office** where the evaluation was performed and sent back to the WUAs for discussion.
- **Review of the evaluation results with the WUAs** and discussion of results (Jordan). **In Tunisia, a workplan was also developed based on the evaluation results that was presented during the evaluation workshop that was held between 16 & 17 November 2015**

### **III. At the Regional Level (Jordan Only)**

- **Meeting to introduce the designated MONEVA regional officer** with the envisaged work and define his/her scope of work ([See Annex 1](#))
- **On job trainings for the staff of the regional office** implicated in the pilot implementation during 2015, with the participation of other national and regional officers. The training included both the [MONEVA data processing Files](#) and the [Procedures and data collection forms](#) (both introduced in earlier sections under the respective titles) proposed by SWIM-SM. This also involved revisiting the procedures document and the processing files to better suit the conditions in the regions.
- Provided assistance to the regional office in the application of the MONEVA at the regional level.

### **Self-evaluation sessions/workshops in Jordan and Tunisia.**

The main purpose of the MONEVA system is to arrive at a yearly evaluation where the degree of achievement of the different outcomes and outputs is assessed and corrective actions are identified. This is supported by the design of the evaluation reports, where the MONEVA System shows for each outcome and output all the indicators/activities where low values have been obtained and therefore where



improvements are needed to achieve the stated outcomes and outputs, thus making the MONEVA also a decision support system.

In order to analyse the evaluation results of the system, a two-day evaluation workshop was held in both countries during November 2015. One of the major outcomes of the evaluation workshops was the elaboration of the actions needed to improve the WUAs performance (Jordan and Tunisia).

In the case of Jordan, since the pilot implementation during this year also involved a region which has previously participated in (a) the testing of the MONEVA system back in 2014 and in (b) the first evaluation workshop (conducted in September 2014), it was hence possible to assess the progress made in the PIM/IMT planning and implementation between the two evaluations in that region; allowing to compare the monitoring results of consecutive years, and to check the status of the implementation of its action plan.

For Examples on the Action Plans prepared by the participants in Tunisia, see Annex 2. The reader is also referred to the Annexes of the evaluation workshop reports for both countries; available at [www.swim-sm.eu](http://www.swim-sm.eu) . The lessons learnt from the expanded application of the system in both countries are also available in these reports.

An example of the agenda for such evaluation is provided in [Annex 3](#).

It should be pointed out that where the MONEVA system was applied more than once (as applicable in the case of South Shuneh Directorate in Jordan), it was noted that the corrective actions needed were reduced compared to those identified during the first evaluation workshop. This suggests gradual implementation of the remedial actions during the past year in the region under consideration.

Accordingly, it is believed that the repetitive application of the system should result in a gradual reduction in the number of corrective actions needed (assuming that the country and the WUAs progressively implement the corrective actions (in time). Therefore the stakeholders should not get intimidated by the large number of actions that may emanate from the evaluation of PIM/IMT when using MONEVA for the first time.

### Preparation of a brochure/document describing the MONEVA system

The participants of the regional Experts Group Meeting that was held in Greece in November 2014 recommended the preparation of a short document about the MONEVA in order to provide a larger dissemination of the system. The brochure was prepared once the beta version of the MONEVA system was fully developed and tested again during 2015.

Figure 3: Front cover of the MONEVA brochure







In essence, the document describes the main features of the MONEVA system but also some of the challenges that have framed its development as well as some suggestions for its use and application by other countries and potential users.

The brochure is divided essentially in 5 main sections, which are briefly summarized here.

The **first section** provides the general background that led to the development of the MONEVA system. In first instance, it discusses the need for developing an M&E system for PIM/IMT programs and subsequently the main development phases of the MONEVA system.

The **second section** concentrates in describing the main challenges that developing such M&E system posed and how they were resolved by the developers. This section covers the following topics:

- Developing a consistent set of outcomes and outputs that could fit the diversity of PIM/IMT processes.
- Designing an objective and simple system of evaluation
- Organizing the evaluation as a tool to facilitate the preparation of Action Plans
- Integrating the three level of work (national, regional and local) in one single system
- Building flexibility to accommodate national differences
- Adapting to the language requirements of the Mediterranean Region

The **third section** provides a complete tour over the main menus of MONEVA explaining the main characteristics and its use. This section contains many screenshot of the program to illustrate visually the descriptions made in the text. The section should provide the reader with a good orientation of the potentialities of the MONEVA system and the facility of use.

The **fourth section** is dedicated to provide some advice for the application of MONEVA beyond the pilot experience of Jordan and Tunisia. A detailed road map is provided containing the main steps that should be undertaken when initiating this activity in other countries or specific regions of a country. Some other orientations are provided for the use of MONEVA for research, training and education.

The **last section** provides some insight to the benefits that can be derived from the application of the MONEVA system.

The brochure can also be downloaded from the SWIM-SM web site: <http://www.swim-sm.eu/> or contact [info@swim-sm.eu](mailto:info@swim-sm.eu)



## 4 Conclusions and Recommendations

### The MONEVA System

The MONEVA system has been designed based on best practices in PIM/IMT planning and implementation and in WUAs establishment and operationalisation. It is a source of reference for the comprehensive monitoring and evaluation of the PIM/IMT throughout its phases, which has been designed to:

- Enable monitoring the degree of the countries' political commitment towards PIM/IMT process,
- Provide the basis for evaluating governments interventions to establish and support WUAs including; the adequacy of legislations, the suitability of the awareness campaigns among water users of the WUAs roles and responsibilities, and the appropriateness of the capacity building and training programs undertaken to develop the WUAs management, technical and financial capabilities, etc.,
- Assess the level of progress of WUAs and their institutional, financial and technical performance in order to identify the ones which are not performing well and where additional support is needed, and investigate reasons for good and bad performance and transfer lessons learnt to other WUAs, and
- Periodically assess the results/impacts of the WUAs establishment

The main features of the System include:

- The integration of three levels of work (national, regional and local) in one single system.
- Provision of a consistent set of outcomes and outputs that could fit the diversity of PIM/IMT processes.
- Provision of an objective and simple scoring system and an evaluation framework which has been organised as a tool to facilitate the preparation of Action Plans - a decision support system.
- Interfaces in three languages (Arabic, English & French)
- Flexibility to accommodate National differences and diverse situations of the PIM/IMT process (from countries that have started PIM/IMT to those that have completed the process).
- A users' guide which is accessible from every section of the System.

### SWIM-SM Procedures and Data Processing

The data processing files developed by SWIM-SM, takes into account the possibility of using these files by other regional offices and WUAs, and with some customisation can be also used in other countries. This also applies on the procedures for collecting data for the more complicated variables, subject to:

- Customisation to suit the local conditions
- Testing the customised procedures and refining them

### The MONEVA road map for its application in other countries

The road map of the main activities to be undertaken when initiating the application of MONEVA are given below. Given the fact that every PIM/IMT experience is different, the road map may need to be adapted to every specific situation but it represents a good guide of the steps that need to be considered.

1. **Government interest and support.** An essential element for the success of MONEVA in Jordan and Tunisia was the strong support received from the concerned government institutions who dedicated time and resources to support the implementation of the program. Without such interest and support, the application of MONEVA will be limited in scope and results.



2. **A progressive geographical approach.** The approach used in the pilot experiences of involving a limited number of regions and WUAs in the first year and expanding them progressively in the second year has proven to be highly adequate and will be also advisable in other countries to gain confidence with the system.
3. **Good planning of the activities to be done is required.** One or two days planning workshops to define the activities to be undertaken is a good start.
4. **Training of trainers (TOT) is an important pillar of the implementation.** The experience showed that a 3 days training workshops were sufficient to train the national/regional officers concerned and a limited number of WUA leaders. Use of local language (Arabic) proved to be fundamental. The training of the National/ administrator require some additional on job training.
5. **Local support to the leaders of the WUAs.** For many WUAs the use of computer facilities is often a new world and even when information to be provided is simple they often need support. In this sense, the PIM/IMT Support Units of Jordan and Tunisia proved to be essential to provide the needed support. Also, trained Regional Officers can play an important role in this task.
6. **Remote technical assistance from the developers.** The pilot experience showed that the requirements for technical assistance from the developers were very modest but it is important to count on such assistance if required.
7. **Financial and human resources.** Carrying the above activities implies the dedication of some human and financial resources to implement them. The human resources are generally available locally and the new activities require only additional time requirements for the training and some of the related activities. The financial resources would need to be evaluated in each case depending of the activities to be carried out. They are certainly modest considering that mainly local human resources are needed plus some limited external support from the developers. International or bilateral cooperating institutions may need to be approached if the financial resources are not available from other sources.

### At the operational level

Based on the experience gained in the application of the system during 2015, below is a summary of the steps needed in order to enable the successful application of the system in any pilot region of the country:

1. Select the pilot region in the country and the pilot WUAs
2. Nominate the MONEVA national administrator, and MONEVA focal points (in the pilot region, and the pilot WUAs) as per the scope of work available in Annex ...1
3. Install the System (at the national and regional levels) making use of the system's guide, while noting the software and hardware requirements delineated therein for each level.
4. Get familiar with the system's structure (set of indicators, output, and outcomes), a task that should be undertaken by the designated national administrator.
5. Select the indicators applicable to the country, and the system's settings (using the system's guide), while making sure that all the MONEVA focal points and other relevant officials from the O&M departments, and those responsible for PIM/IMT are involved.
6. Disseminate the MONEVA settings to the pilot regional office (using the system's guide) – Responsibility of the MONEVA National Administrator
7. Disseminate the MONEVA PDF modules relevant to the local level to the WUAs – Responsibility of the MONEVA Regional Officer
8. Identify available data (at the level under consideration).



9. Develop procedures for collecting unavailable data and refine existing ones, using whenever possible the procedures developed by SWIM-SM for commonly unavailable data.
10. Integrate collection of new data to the extent possible with existing data collection forms and procedures
11. Test the procedures in the field at all levels and refine them to reflect the findings in the ground.
12. Review and customise the data processing files provided by SWIM-SM to suit the local conditions
13. Train the users on the system (each at his/her level (National, regional and local - as applicable)) and on the procedures. Seeking technical assistance from the developers would help in this regard.
14. Collect data at all levels (as applicable). This requires support from the national and regional officers to the WUAs implicated staff
15. Enter data into the MONEVA system and operate the system to obtain the evaluation results of PIM/IMT at the national and regional levels and the WUAs at the local level (the users guide offer good help in this regard).
16. Conduct evaluation workshops involving all stakeholders from all levels. Annex 2 provides the agenda for the evaluation workshop carried out by SWIM-SM, which provide good example.
17. Develop action plan for improvement of PIM/IMT and of WUAs performance based on the results of evaluation. Review progress made in the action plan every year
18. Use the **evaluation results emanating from the MONEVA to guide the development of future actions** to improve PIM/IMT and WUAs performance. **Likewise**, these results should **become the main driver for any future intervention by donors in the field.**
19. Provide incentives for the utilisation of the system at the local level (possibly through inclusion in the transfer agreement)



## Annex 1: Proposed Scope of work for the MONEVA officers

### At the regional level

- a. Participate in PIM/IMT planning for the region
- b. Implementation of the PIM/IMT plans/activities in the region
- c. Documentation of the data and the activities during the year; as required by the MONEVA system
- d. Data collection (including from donors and human resources department) using the procedures developed by SWIM-SM at the regional level; whenever applicable.
- e. Processing of data using the processing files developed by SWIM-SM
- f. Entry of the data related to the regional office into the MONEVA system
- g. PIM/IMT evaluation in the region and sending the results to the WUA administration
- h. Jointly develop the yearly action plan with the officers of the National level and the WUAs in his/her region.
- i. Provide assistance to the WUAs during the establishment/operationalisation of the WUA in his/her region
- j. Assisting the WUAs in the implementation of the procedures developed by SWIM-SM and in documentation of data and archiving
- k. Assisting the WUAs in the application of the MONEVA
- l. Participate in the development of the yearly action plan with the WUAs in his/her region
- m. Follow up the implementation of the action plans in the WUAs of his/her region
- n. Ensuring that the cropping pattern data is sent to the JVA control centre
- o. Ensure that JVA control centre provides the WMIS data needed by the MONEVA following its validation.

### At the local level

- a. Coordinate the collection of information from the relevant WUA staff (Financial officer, Treasurer/WUA president, Field staff according to actual responsibilities designated to the respective staff
- b. Provide technical assistance to the field staff
- c. Ensure that the responsible staff - designated to collect the data, collect them in a timely manner and use the data collection forms (Distributed by SWIM-SM to the associations)
- d. Pre-process the data using pre-processing Excel files developed by SWIM-SM for this purpose
- e. Enter the data into the PDF modules
- f. Send the filled PDF modules to the concerned Directorate (Regional Office / CRDA) in order to evaluate the data entered into PDF
- g. Receive the evaluation results of the monitoring data from the directorate concerned and coordinate - in cooperation with the President of the WUA - the organization of the discussions of the evaluation results and the preparation of next year(s) action plan with the relevant staff from the WUA support Administration at the Jordan Valley Authority (JVA)



## Annex 2: Sample ACTION PLAN-Tunisia 2015

Outcome	Output	Indicator(s)	Action	Required Support from	Applicable for			Deadline
					GDA Chott Erroman	GDA SBA	GDA Belaoum	
C.2 - Governance bodies of the WUA functioning adequately	C.2.1 - General Assembly functioning regularly	C02020	Awareness of farmers on the importance of attending AG	CRDA (CP; CTV) and GDA	XXX	XX	X	Short Term (ST)
			Awareness of GDA on conducting General Assembly Meetings on an annual basis.	CRDA (CP; CTV)	XXX		XX	ST
			Set minimum criteria concerning candidature for election of Board members of GDA.	DGGREE	XXX		XX	Medium Term (MT)
		P02010	- Reduce the amount of the registration fees to increase the registered number of members in the GDA	GDA	XXX	XXX	X	ST
			- Awareness of farmers on the importance of registration as GDA member.	GDA	XXX	XX	X	ST
	C.2.2 - Administrative Council functioning regularly	P02040	Awareness of GDA to conduct meetings regularly.	CRDA(CP/CTV)	XXX		XXX	ST
			Revision of the regulatory framework of GDAs (to clarify GDA statute and activities)	DGGREE-CRDA	At national level			MT
	C.2.3 - Women represented in governance bodies	C02060 & C02063	Motivate female farmers to become members in the GDAs Board	GDA	X	X	X	ST
	C.2.4 - WUA's activities audited internally	C02080	Create monitoring/auditing committee	GDA	X	X	X	ST
	C.2.6 - Internal communication and conflict resolution mechanism established and operational	C02110	- Awareness to establish a communication and conflict resolution committee to be selected from the General Assembly.	DGGREE-CRDA(CP/CTV)	This item is not currently applied but requires further special attention			MT



## Annex 3: Agenda for the Evaluation Workshop

### Day 1

Time.	Description	Speaker
8:30 – 9.00	<b>Registration</b>	
9:00 - 9:30	<ul style="list-style-type: none"> <li>- <b>Welcome remarks</b></li> <li>- <b>Overview of SWIM-SM during 2015</b></li> <li>- <b>Presentation of agenda</b></li> </ul>	<b>Khaled Qsous:</b> Director Water Users Administration <b>Suzan Taha:</b> SWIM-SM Key water expert
9:30 - 9:55	<b>Short presentation about evaluation in the context of M&amp;E systems.</b>	<b>Juan A. Sagardoy;</b> Senior Water Management Consultant, SWIM-SM non-key expert
9:55- 10:30	<b>Progress on the Action Plan – National level</b> <ul style="list-style-type: none"> <li>- Presentation of the progress made in the implementation of the Action Plan prepared during the evaluation workshop of 2014 at the national level. (20 minutes)</li> <li>- Open discussion (15 minutes).</li> </ul>	<b>Khaled Qsous:</b> Director Water Users Administration
10:30 – 11:00	<b>Presentation of the 2014 monitoring data and comparison with 2013 – Regional level</b> <ul style="list-style-type: none"> <li>- Presentation - Office of South Shuneh (20 minutes)</li> <li>- Discussion (10 minutes)</li> </ul>	<b>Mamoun Kharabsheh –</b> Head of Irrigation Systems Operation and Maintenance Division in South Shuneh Directorate
11:00 - 11:15	<b>Coffee Break</b>	
11:15 – 12:45	<b>Practical Exercise for the development of Action Plan – Regional level</b> <ul style="list-style-type: none"> <li>- Guidelines for the preparation of the action plans. (10 minutes)</li> <li>- Workgroup Exercise involving: <ul style="list-style-type: none"> <li>❖ Assessment of the 2014 evaluation results given by the MONEVA system for the Regional Office of South Shuneh; while comparing them with 2013.</li> <li>❖ Review the action plan that was developed in 2014 evaluation workshop and identify actions still requiring implementation. Identify further actions if needed and time frame for implementation.</li> </ul> </li> </ul> <p><b>Action Plan developed in 2014 will be distributed to the workgroups</b></p>	<b>Suzan Taha</b>  <b>Two workgroups facilitated by two experts</b>
12:45 – 13:45	<b>Lunch Break</b>	
13:45– 14:30	<b>Presentation of workgroups results:</b> <ul style="list-style-type: none"> <li>- Workgroup 1: Comparison between 2013 and 2014 Evaluation results (15 minutes)</li> <li>- Workgroup 2: Actions still requiring implementation and the time frame for implementation (15 minutes)</li> <li>- Discussion (15 minutes)</li> </ul>	<b>Designated Workgroups representatives</b>
14:30- 16:15	<b>Development of Action Plans – Local level</b> <ul style="list-style-type: none"> <li>- Workgroups 1-3: WUAs Pump 95, Pump 81 and Rama <ul style="list-style-type: none"> <li>❖ Assessment of the 2014 MONEVA</li> </ul> </li> </ul>	<b>Four working groups</b> assisted by the project facilitators



	<p>evaluation results and preparation of the Local Action plan by the concerned WUAs</p> <ul style="list-style-type: none"> <li>- Workgroup 4: Baladna WUA</li> <li>❖ Comparison between 2013 and 2014 evaluation results. Review the action plan that was developed in 2014 evaluation workshop and identify actions still requiring implementation. Identify further actions if needed and time frame for implementation (105 minutes)</li> </ul>	
15:30	<b>Coffee Break to be served during workshops</b>	

## Day 2

Time.	Description	Speaker
9:00 – 10:20	<p><b>Presentation of the evaluation results and action plan by the WUAs</b></p> <ul style="list-style-type: none"> <li>- WUA Pump 81 (25 minutes)</li> <li>- Discussion (15 minutes)</li> <li>- WUA Pump 95 (25 minutes)</li> <li>- Discussion (15 minutes)</li> </ul>	<p><b>Representative - WUA Pump 81</b></p> <p><b>Representative -WUA Pump 95</b></p>
10:20 – 10:35	<b>Coffee Break</b>	
10:35-12:00	<p><b>Presentation of the evaluation results and action plan by the WUAs (Continued)</b></p> <ul style="list-style-type: none"> <li>- WUA Ramah (25 minutes)</li> <li>- Discussion (15 minutes)</li> <li>- WUA Rameh (30 minutes)</li> <li>- Discussion (15 minutes)</li> <li>- WUA Baladna</li> <li>❖ Comparison between 2013 and 2014 Evaluation results (30 minutes)</li> <li>❖ Actions still requiring implementation and the time frame for implementation (15 minutes)</li> <li>- Discussion (15 minutes)</li> </ul>	<p><b>Representative - WUA Rama</b></p> <p><b>Representative - WUA Baladna</b></p>
12:00 -13:00	<b>Lunch Break</b>	
13:00 - 13:40	<p><b>Lessons learnt (National, Regional &amp; Local) and suggestions for the future road map to ensure sustainability of the MONEVA utilization in the country</b></p>	<p><b>Two workgroups</b> assisted by the project facilitators</p>
13:40 - 14:20	<p><b>Presentation of workgroups results</b></p>	<p><b>Workgroup representative</b></p>
14:20 – 14:40	<p><b>Workshop closure</b></p>	<p><b>Khaled Qsous:</b> Director Water Users Administration</p> <p><b>Suzan Taha:</b> SWIM-SM Key water expert</p>