



Sustainable Water Integrated Management
Support Mechanism
SWIM – SM
Project funded by the EU



CIHEAM
IAM Bari

MONEVA System
MONitoring and EVALuation
System



M&E System Application to monitor & evaluate the Participatory Irrigation Management (PIM) and Irrigation Management Transfer (IMT) Process

Activity implemented in collaboration with CIHEAM/IAM Bari



M&E Users' Guide Database for National/Central Office

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Table of Content

1.	Introduction.....	6
1.1	First level evaluation	8
1.2	Second level evaluation.....	8
1.3	Third level evaluation	8
2.	System prerequisites.....	9
2.1	Hardware prerequisites.....	9
2.2	Software prerequisites	9
3.	Installing MONEVA System	9
3.1	Potential errors	10
4.	The database interface, welcoming and logging in.....	11
5.	'General Settings' Function.....	15
5.1	Section 'PIM/IMT important dates'	16
5.1.1	Field 'Date of last update of settings'	16
5.1.2	Field 'Year PIM/IMT actually started'	16
5.1.3	Field 'Expected duration of PIM/IMT'	16
5.1.4	Field 'Reference year"	17
5.1.5	Field 'Number of years for which the PIM is extended'	17
5.1.6	Calculated indicators	17
5.2	Section 'Currency'	18
5.3	Section 'Scoring criteria'	19
5.3.1	Setting scoring criteria for a specific indicator.....	20
5.3.2	Typologies of scoring criteria.....	22
5.4	Section 'Regional Office Registry'	23
5.4.1	Managing Regional Office Registry	25
5.5	Section 'Applicable indicator'	25
5.5.1	Setting the indicators application status	27
5.6	Send updated settings to Regional Offices	28
5.6.1	Sending XML files	29

5.7 Section 'Users and Passwords'	31
5.7.1 Editing/modifying existing profiles.....	31
5.7.2 Adding a new profile.....	32
6. Function 'Monitoring'	33
6.1 Once at M&E start.....	34
6.2 Starting a 12 months step monitoring process.....	35
6.3 Starting a 36 months step monitoring process.....	36
7. Function 'Evaluation'	38
7.1 National Evaluation per Outcome 12/36 months steps.....	38
8. Function 'Reporting'.....	42
8.1 Section 'Statistical calculation'	42
8.2 Section 'Graphics'.....	46
8.3 Section 'Monitoring data exporting'.....	48
9. Function 'Utility and tools'	49
9.1 Section 'Retrieve data'.....	49
9.1.1 Importing Regional detailed info	50
9.1.2 Importing Regional monitoring data.....	51
9.2 Section 'PDF doc archive'	54
9.3 Section 'Migration and data export tool'.....	56
9.4 Section 'Structure'.....	58

List of Figures

Fig. 1 - Errors that may occur when launching MONEVA System	10
Fig. 2 - Database welcoming start-up screen	12
Fig. 3 – Database login screen.....	13
Fig. 4 - Main bar activated after successful logging in	14
Fig. 5 – Sidebar buttons associated to the 'General Settings' function	15
Fig. 6 – Settings associated to section 'PIM/IMT' important dates	16
Fig. 7 – Functions associated to section 'Currency'	19
Fig. 8 - 'General Settings' function: Scoring criteria associated sidebar section	20
Fig. 9 – Applying a single scoring criteria to the entire M&E period.....	21
Fig. 10 – Applying different scoring criteria to two distinguished M&E periods.....	22
Fig. 11 – Indicator with two different scoring criteria referred to two distinguished monitoring periods.....	23
Fig. 12 - Scoring criteria for logical (IL) indicators	23
Fig. 13 – 'General Settings' function: Regional office registry associated section	24
Fig. 14 – 'General Settings' function: Applicable indicators associated section	26
Fig. 15 - Help and info dialogue box of a specific indicator	26
Fig. 16 - 'General Settings' function: Setting applicable indicators.....	27
Fig. 17 – 'General Settings' function: Send updated settings to Regional Offices associated section	29
Fig. 18 - Regional Offices email addresses	30
Fig. 19 - Composing the email	31
Fig. 20 – General Settings' function: Users & Passwords associated section	32
Fig. 21 - 'Monitoring' function and associated sections.....	33
Fig. 22 - Once at the start monitoring.....	34
Fig. 23 - Performing the 12 months monitoring process.....	35
Fig. 24 - 12 Months step: Monitoring a new year.....	36
Fig. 25 - Performing the 36 months monitoring process.....	37
Fig. 26 - 36 Months step: Monitoring a new year.....	38

Fig. 27 - The National evaluation process per Outcome 12/36 months steps	39
Fig. 28 – Overview of the evaluation window.....	40
Fig. 29 – Details of the evaluation window.....	41
Fig. 30 - Statistical calculation on aggregated data.....	43
Fig. 31 - Regional statistics of logical indicators aggregated at National level (12 and 36 months steps).....	44
Fig. 32 - Regional statistics of numerical variables aggregated at National level (Frequency once at the beginning).....	45
Fig. 33 - Regional statistics of numerical variables aggregated at National level (12 months step)..	46
Fig. 34 - Graphics section and features.....	47
Fig. 35 – Window showing the generated graph.....	47
Fig. 36 – Window showing the graph values organized in a table.....	48
Fig. 37 - Monitoring data exporting section.....	48
Fig. 38 - "Utility and Tools" Function: "Retrieve Data" associated section	49
Fig. 39 - The XML files of the Regional and Local aggregated monitoring data	50
Fig. 40 - Importing Regional Detailed info	51
Fig. 41 - Updated Regional Detailed info window.....	51
Fig. 42 - Importing 12 months step Regional monitoring data.....	52
Fig. 43 - Importing 36 months step Regional monitoring data.....	53
Fig. 44 - Importing once at the start Regional monitoring data	54
Fig. 45 - Section "PDF Doc archive"	55
Fig. 46 – Customization of PDF files. Checking (making unavailable) fields C03101 and C03102	56
Fig. 47 – Fields C03101 and C030102 are hidden in the PDF form after customization.....	56
Fig. 48 - Migration data tool.....	57
Fig. 49 - Exported data and settings files.....	58
Fig. 50 – Navigating through the system structure: Outcomes/Outputs/Indicators	59
Fig. 51 - Details of specific Outcomes/Outputs/Indicators structure	60

1. Introduction

The Regional Monitoring and Evaluation (M&E) System for Participatory Irrigation Management (PIM) and Irrigation Management Transfer (IMT) Process developed under the framework of SWIM-SM comprises four modules as follows:

1. **Module A** - Assesses the degree of political commitment towards the PIM/IMT process and the adequacy of the existing institutional arrangements in support of the establishment of the Water Users Associations (WUAs).
2. **Module B** - Assesses the performance of irrigation agencies in the implementation of the PIM/IMT program.
3. **Module C** - Assesses the institutional, financial and technical performance of Water Users Associations.
4. **Module D** - Assesses the impact of WUAs' establishment.

The system includes a list of output indicators representing the main elements to be monitored and evaluated and corresponding to a set of expected outcomes and is intended and conceived as a Decision Support System.

This users' guide illustrates and details the features of MONEVA System software, a user-friendly computer application developed, based on and integrating the above, and customized to suit the national and local conditions of the different countries of the Region.

MONEVA System is provided with two types of installation which refer to two different levels of application, use and management in a Country that is the **National/Central level** and **the Regional level**, in its turn direct interlocutor of the Local Offices/WUAs established in a certain area.

Each level provides access to its own database through two different profiles of users: Administrator profile and User profile with different privileges of use. An administrator can access/edit/operate the entire system while a generic user can only access the system to navigate through its different features, data sets and generated reports.

Each outcome is assigned a code which recalls the corresponding affinity module (A, B, C or D). This applies as well to the outputs, which are assigned codes recalling the corresponding affinity outcome, for example Outcome A.3 is evaluated through two Outputs A.3.1 and A.3.2.

The codification of the output variables/indicators is more complicated, as a variable/indicator may be directly or indirectly evaluated. In the first case the

corresponding affinity module shows in the code, in the second another sequence of letters is used as shown in Table 1.

Table 1 – Codification of variables and indicators: Affinity with M&E modules

LETTER USED FOR CODIFICATION	AFFINITY
A	Module A
B	Module B
C	Module C
D	Module D
M	Calculated from monitoring data of Module A
N	Calculated from monitoring data of Module B
P	Calculated from monitoring data of Module C
T	Calculated from monitoring data of Module D
R	Retrieved; already existing in the system and used after applying different criteria for aggregation.

For example Output A.3.1 is evaluated through the scores achieved by the variables/indicators A03010; M03020; M03032; M03033; M03040; and Output A.3.2 is evaluated through the scores achieved by the variables/indicators M03050; M03063 and M03064.

The Final Letter "N" or "R" which affects in some cases a variable/indicator indicates the level at which this variable/indicator is monitored/evaluated i.e. National or Regional.

This is necessary as in many cases, the same variable/indicator is monitored at different levels, allowing for different typologies of evaluation reports as detailed in the sections: 1.1, 1.2 and 1.3.

At the local level, Monitoring is performed through simple PDF modules consisting of fields that allow for a pre-guided compilation by the WUAs and for their transmission to the Regional offices they are affiliated to. The Regional offices provided with a M&E system with Data Base having the ability to check and incorporate the data/info collected by the local offices (WUAs), and for their subsequent evaluation with no interference on the result, are responsible for

providing the WUAs with the executed Evaluation (see Users' Guide for Local Offices).

1.1 First level evaluation

This is a standard evaluation generated per output/outcome and performed at National, Regional and Local level. It shows the relative level of achievement by assigning scores to the corresponding variables/indicators according to preset scoring criteria, and by comparing the totals to a Maximum Number of Points (MNP) that can be scored.

The system distinguishes among four levels of achievement:

1. The Total number of points scored is = 100% MNP then the outcome/output is fully achieved.
2. The Total number of points scored is $\geq 70\%$ and $< 100\%$ MNP then the progress is satisfactory but improvements are needed.
3. The Total number of points scored is $\geq 30\%$ and $< 70\%$ MNP then the progress is medium and considerable improvements are needed.
4. The Total number of points scored is $< 30\%$ MNP then the progress is low and important improvements are needed.

1.2 Second level evaluation

It is performed at National and Regional level and reports aggregated data:

1. Regional and/or Local data are aggregated at National level and statistics are shown, comparing where it applies the National data to the aggregated Regional and/or Local data: Sum, Average, Maximum and Minimum apply for numerical variables and simple count for logical indicators.
2. Local data are aggregated at Regional level and statistics are shown, comparing where it applies the Regional data to the aggregated Local data: Sum, Average, Maximum and Minimum apply for numerical variables and simple count for logical indicators.

1.3 Third level evaluation

It is performed at National and Regional level and shows trend graphs of some correlated parameters.

2. System prerequisites

MONEVA System intended to perform all the activities related to the Monitoring and Evaluation processes, was developed with Microsoft Access 2010 Runtime.

Microsoft Access 2010 Runtime enables to distribute Access 2010 applications to the users who do not possess the full version of MS Access 2010.

2.1 Hardware prerequisites

The minimum hardware requirements for the installation and running of MONEVA system are specified below:

- ✓ CPU 1GHz x86 or x64 bit architecture with SSE2 instruction set.
- ✓ 1 GB of RAM (32 bit) or 2 GB of RAM (64 bit).
- ✓ 3 GB of available Hard Disk space.
- ✓ Graphics hardware acceleration with a Direct X10 graphics card capable of 1024 x 576 resolution.

2.2 Software prerequisites

The operating systems supported by Microsoft Access 2010 Runtime are the following: Windows 7; Windows 8; Windows Server 2003 R2 (32-Bit x86); Windows Server 2003 R2 x64 editions; Windows Server 2008 R2; Windows Server 2008 Service Pack 2; Windows Vista Service Pack 1; Windows XP Service Pack 3.

For Windows XP Service Pack 3, only Access 2010 Runtime 32 bit is supported.

It is also necessary to update the system libraries with the software .NET version 3.5, 4.0 or 4.5 that can be downloaded and installed via the Windows Update utility.

3. Installing MONEVA System

The installation is divided into two parts:

The first covers Microsoft Access 2010 Runtime and the second the database application itself, performed by Microsoft Access 2010 Runtime.

For both, the software should be installed with administrator privileges in order to make available the application to all users.

The following links allow to download Microsoft Access 2010 Runtime depending on the available system:

- ✓ For a 32 bit system chose the following:

<http://download.microsoft.com/download/2/6/0/260AA63A-A275-4A92-950D-CE20B490D0B9/AccessRuntime.exe>

- ✓ For a 64 bit system chose the following:

http://download.microsoft.com/download/2/6/0/260AA63A-A275-4A92-950D-CE20B490D0B9/AccessRuntime_X64.exe

Once the file is downloaded and saved into the hard disk, double-click on the AccessRuntime.exe or AccessRuntime_X64.exe file to start the Setup program, and follow the instructions to complete the installation.

When Access Runtime is correctly installed, launch and install the file called MEVS.exe provided with this guide, following the installation wizard and entering the information related to your Institution when prompted. At the end of the installation process, a shortcut on the computer desktop will be created .

Before launching the software, download the file 'mscomct2.ocx' from the following link <http://support.microsoft.com/kb/297381/> (the last available version to date of 'mscomct2.ocx' can be also found in C:\MEVS\SYSTEM\DLL) and copy it into one of the following paths depending on the hardware and software configurations of your system:

- a. C:\Windows\System (Windows 95/98/Me)
- b. C:\WINNT\System32 (Windows NT/2000)
- c. C:\Windows\System32 (Windows XP, Vista, 7)
- d. C:\Windows\SysWOW64 (Windows 7 or 8, 64-bit version)

3.1 Potential errors

The error message shown in Fig. 1 occurs when MS Office 2010 is not installed or when a different system than MS Office 2010 is installed in your computer.



Fig. 1 - Errors that may occur when launching MONEVA System

In this case you have to recover the MS Office installation media and perform the following steps:

- 1 – Locate and copy the file "MSOUTL.OLB" that you can find as well in:

C:\MEVS\SYSTEM\DLL

2 – Paste "MSOUTL.OLB" file in the sub-folder "Office 14" which is located, and if not should be created, in one of the following folders according to the system you are using:

- a) C:\Programs\Microsoft Office\
- b) C:\Program Files\Microsoft Office\
- c) C:\Program Files(X86)\Microsoft Office

3 - launch the application.

4. The database interface, welcoming and logging in

Once launched, the database start-up screen is displayed as shown in Fig. 2.

The software interface shows two bars (a horizontal one and a vertical one) which provide access to the functions of MONEVA System that distinguishes between National and Regional level. Please note that all the buttons of the main bar are "ghost" and not clickable until a session is started.

The selection of a specific button on the main horizontal bar determines the buttons to show on the vertical left sidebar, offering various functionalities/features to the user.

For didactics purposes, this guide assumes that the top horizontal bar makes available a series of "functions". Each function includes a variety of "sections" accessible through the appropriate buttons on the vertical bar.

To start a new session, click on "**Login**" button. A new window will open (Fig. 3) allowing to perform the following steps:

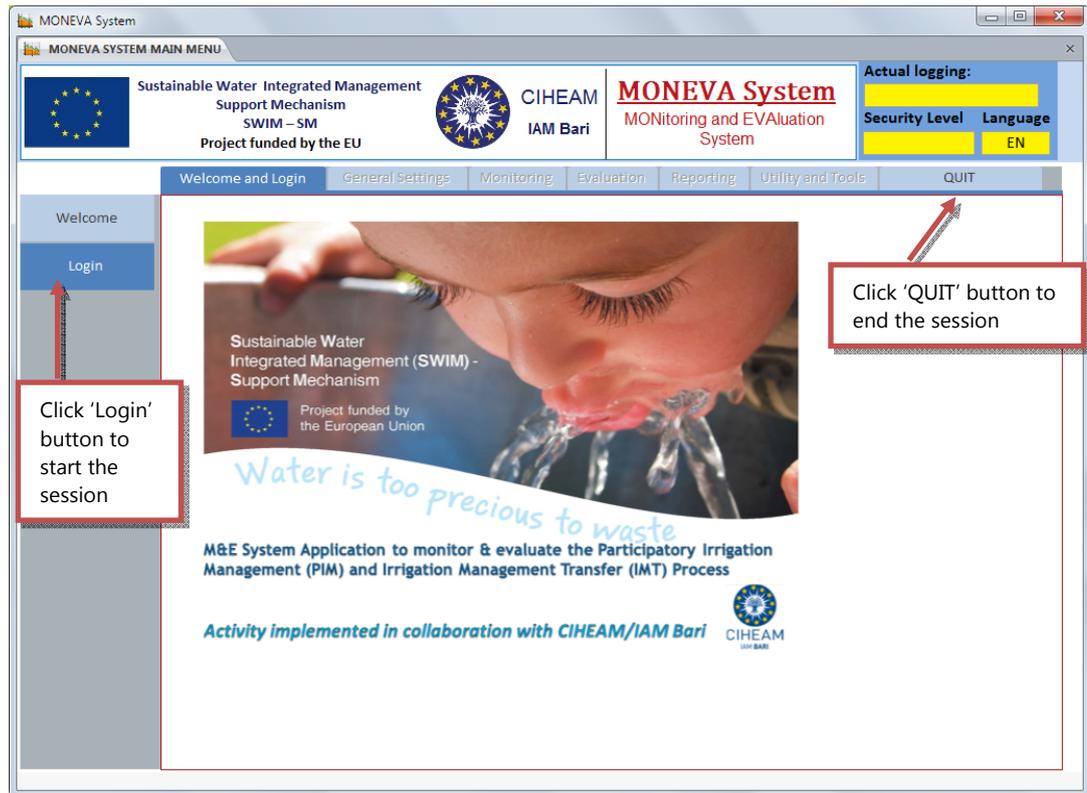


Fig. 2 - Database welcoming start-up screen

1. Select the interface language.
2. Choose the appropriate user profile from the '**Login ID**' combo box.
3. Enter the default associated password in the '**Password**' text field (see Table 2).
4. Click on '**Login**' button to start the session.

Table 2 – Default Login IDs and Passwords provided by the system

LOGIN ID	PASSWORD
NatAdm	13579
NatUser	24680
RegAdm	abcde
RegUser	fghil

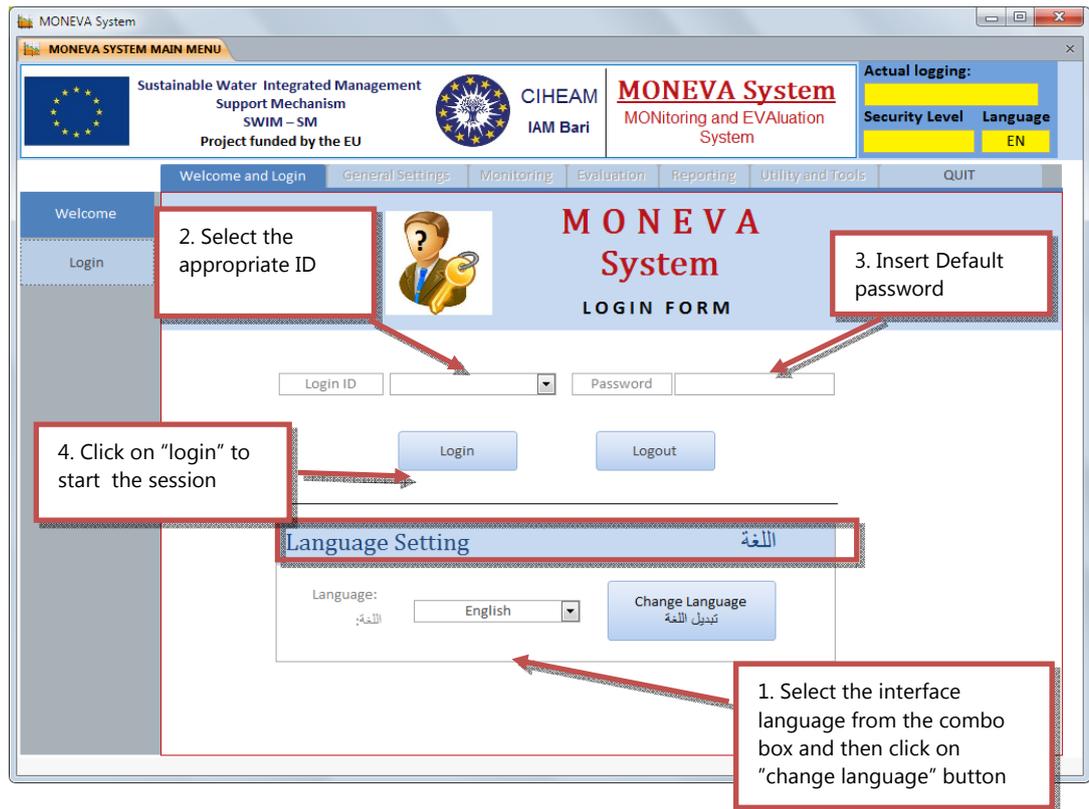


Fig. 3 – Database login screen

Once logged in, a welcome message appears on the screen and the user name, the associated security level and the selected language show on the upper right corner . At this stage, the buttons in the main bar are active and clickable (Fig. 4).

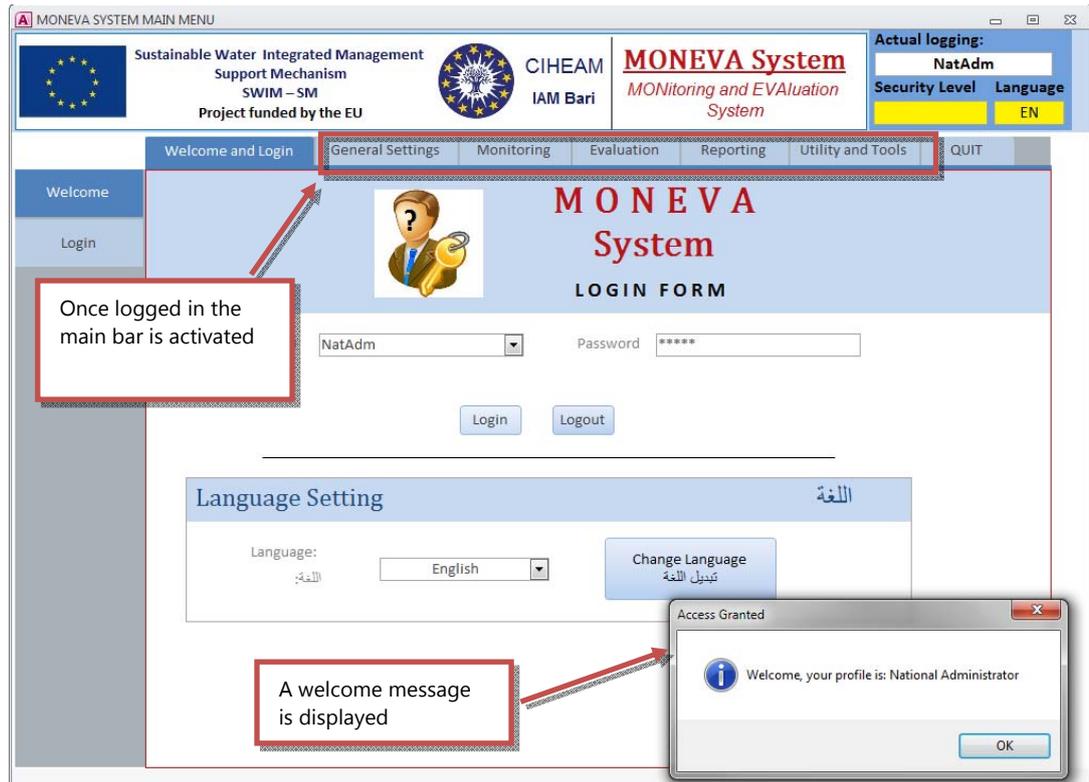


Fig. 4 - Main bar activated after successful logging in

At both National and Regional level, an administrator can access/edit/operate the system while a generic user can only access the system and navigate through its different features, data sets and generated reports.

However, a National Administrator is the only profile/security level which allows for editing/modifying/distributing the 'General Settings' as described in the following section.

'QUIT' button closes the database. When clicked, a confirmation window will appear in order to prevent any accidental closing of the program.

5. 'General Settings' Function

The 'General Settings' are the database main settings, intended to be the reference basic common settings across a country i.e. at National level and among all Regions and affiliated WUAs/local offices.

A National Administrator is the only profile/security level which allows for defining/editing/updating the database 'General Settings', and for distributing the ones which are common to all users at all levels as explained hereafter.

By clicking on '**General Settings**' of the main horizontal bar, the side vertical bar displays the buttons shown in Fig. 5.

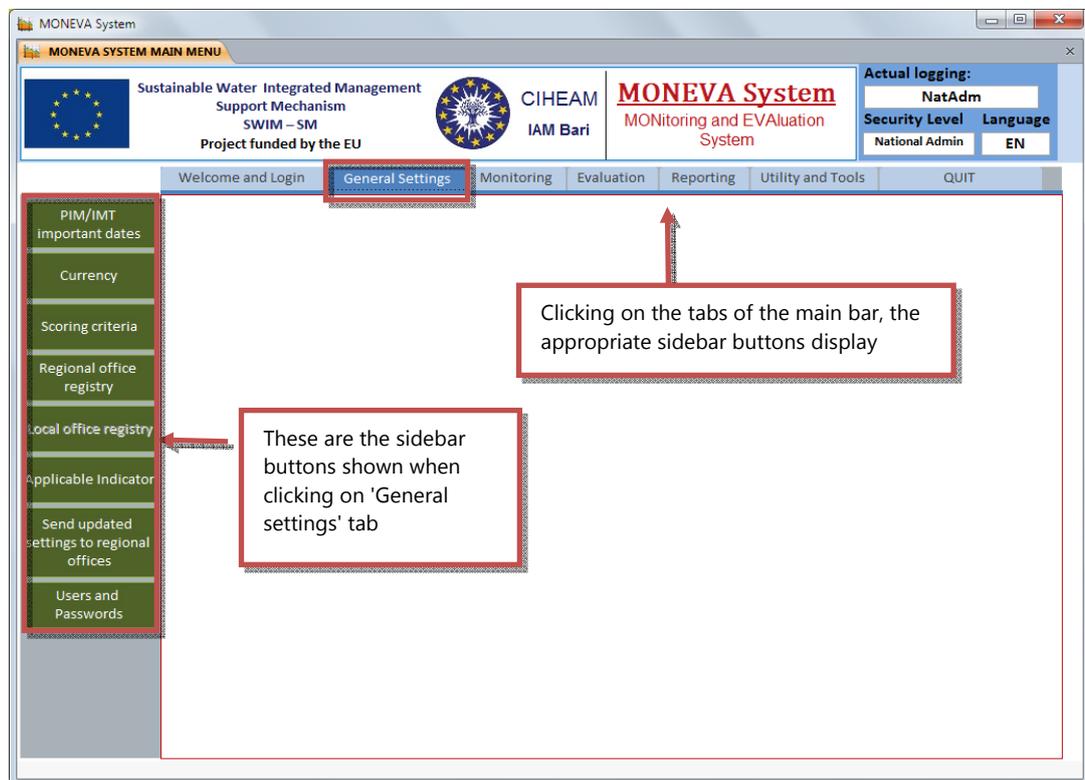


Fig. 5 – Sidebar buttons associated to the 'General Settings' function

The General Settings include the following: **PIM/IMT important dates; Currency; Scoring Criteria; Regional Office Registry; Applicable Indicator; Send updated settings to Regional Offices; Users and Passwords;** (the section Local office registry, is deactivated under National Profile and gets activated under Regional profile; for more details see M&E Users' Guide - Database for Regional Offices).

In the following, the specific features of each section associated to the 'General Settings' are described.

5.1 Section 'PIM/IMT important dates'

This section allows for the setting of a series of important dates related to the PIM/IMT programme. These dates will define the startup, the duration and the end of the Monitoring and Evaluation process as well as the associated features (Fig. 6).

The screenshot displays the 'PIM/IMT Timing Setting' window within the MONEVA System. The window title is 'MONEVA System' and the main menu includes 'Welcome and Login', 'General Settings', 'Monitoring', 'Evaluation', 'Reporting', 'Utility and Tools', and 'QUIT'. The 'General Settings' tab is active, and the 'PIM/IMT important dates' option is selected in the sidebar.

The main content area contains the following fields and buttons:

- Date of last update of settings:** 15/10/2014
- Y0: Year PIM/IMT actually started:** 2000
- DY: Expected Duration of PIM/IMT (years):** 10,00
- Ry: the Reference year is the starting year of PIM/IMT or the year before which the annual data start to get entered:** 2004
- NYEXT: Number of years for which the PIM is extended:** 10,00
- Expected Year of Completion (Y0+(DY*365)):** 2009 (highlighted in yellow)
- Revised Year of Completion (YN+(NYEXT*365)):** 2020 (highlighted in blue)
- Buttons:** 'Past date' (yellow), 'Future date' (blue)
- TIME: Time elapsed since PIM/IMT started (+ACTUAL YEAR-1-Y0):** 13

Fig. 6 – Settings associated to section 'PIM/IMT' important dates

5.1.1 Field 'Date of last update of settings'

It defines the date when the last update of the database settings was performed.

5.1.2 Field 'Year PIM/IMT actually started'

This is the starting year (Y0) of the PIM/IMT programme. It can be set up by typing the date in the format DD/MM/YYYY however, only the year will be displayed.

5.1.3 Field 'Expected duration of PIM/IMT'

The number of years (DY) expected for the entire duration of PIM/IMT programme is entered in this field.

5.1.4 Field 'Reference year'

The concept of Reference Year (Ry) was introduced in order to account for cases where a country starts using the M&E system application after the start of the PIM/IMT and thus to perform M&E in retrospective. Generally, the reference year could be either (1) the year when PIM/IMT started, or (2) the year before which the data start to get entered. In the latter case, the cumulative figures of specific monitoring variables should be inputted up to the year preceding that for which data starts to get entered.

Example on 1: Assuming that the PIM/IMT process started in early 2014 and data for a variable starts to get collected and entered early 2015, then the reference year is early 2014 (the time when PIM/IMT started).

Example on 2: If PIM/IMT started early 2005, and the M&E system starts getting populated with data only in 2009 and onwards, then the reference year would be 2008 for which the cumulative figures of specific variables should be obtained and entered into the system for that year. Hence these figures will be entered once, and then the application would start accumulating the data as more annual data get entered. Ry can be set up by typing the date in the format DD/MM/YYYY however, only the year will be displayed.

5.1.5 Field 'Number of years for which the PIM is extended'

It may happen that PIM/IMT programme gets extended beyond the expected duration. This field is intended to account for this eventual situation. NYEXT represents the number of years for which the PIM/IMT programme is extended.

5.1.6 Calculated indicators

In the lower part of the window a series of indicators calculated on the basis of the previously described fields is shown.

YN is the expected year of completion of the PIM/IMT programme in days, and consequently the end of M&E; it is calculated with the following formula $YN = (Y0 + (DY * 365))$.

YNR is the Revised Year of Completion (after extension), calculated with the following formula $YNR = (YN + (NYEXT * 365))$.

TIME is the time elapsed since PIM/IMT started, and is issued through the formula $TIME = ACTUAL YEAR - 1 - Y0$.

Please note that the YN and YNR are highlighted in different colors if they refer to past (yellow) or future (blue) dates i.e. after extension.

For example (see Fig. 6):

Assuming that the current/actual year is 2014 and that the PIM/IMT started in year 2000 (Y0) and was expected to last 10 years (DY), then YN, the expected year of completion of PIM/IMT would be:

$$YN = (Y0 + (DY * 365)) = 2010$$

If the programme got extended for additional 10 years (NYEXT), then the revised year of completion would be:

$$YNR = (YN + (NYEXT * 365)) = 2020$$

And the time elapsed since PIM/IMT started would be:

$$TIME = ACTUAL YEAR - 1 - Y0 = 13 \text{ years}$$

5.2 Section 'Currency'

The '**Currency**' section (Fig. 7) allows for setting the conversion rates of the local currencies against the US Dollar (USD). Actually, International Scoring Criteria which refer to values in USD are implemented as default in the system.

New values can be entered to update the rates to be used in the M&E system when it applies. Enter the reference date of collection of a rate in the '**Date of collection**' field, select the proper currency from the '**Code**' combo box and finally enter the exchange rate in the '**Rate vs. USD**' field.

The graph in the lower part of the window shows the mean exchange rate per year for the available period of years. This is particularly important when a local currency is subject to irregular fluctuations.

The three buttons located above the graph allow to refresh it  when a new rate is entered, and to export data as Excel  or text file .

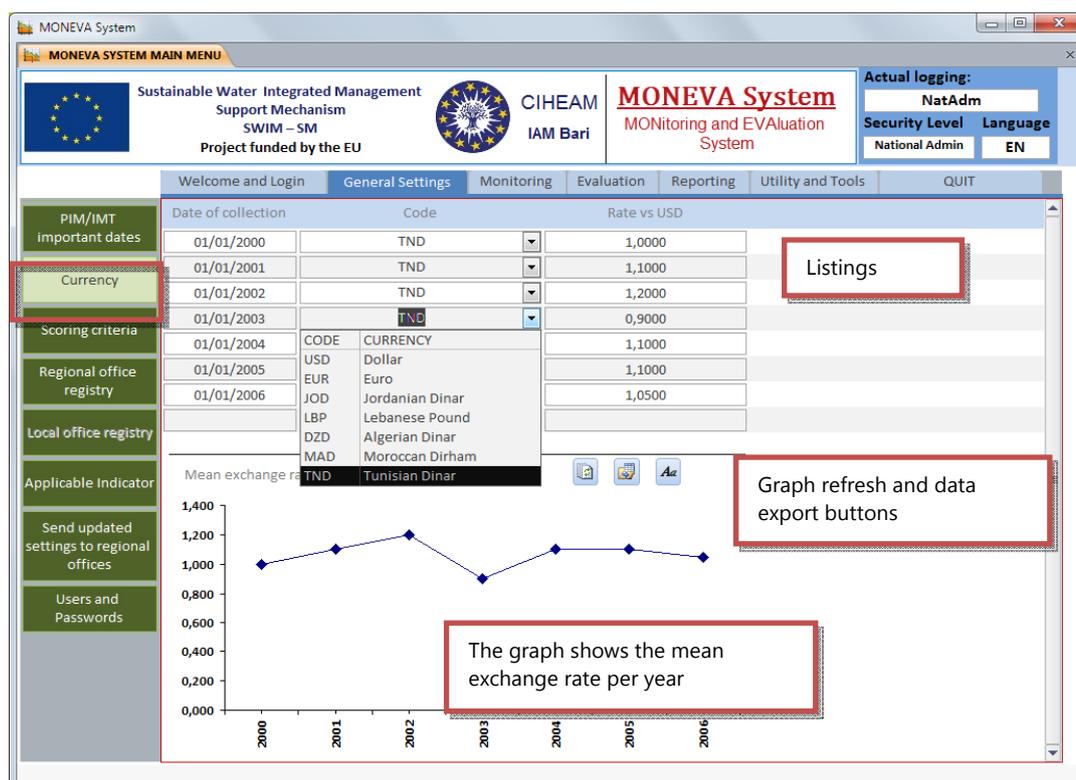


Fig. 7 – Functions associated to section 'Currency'

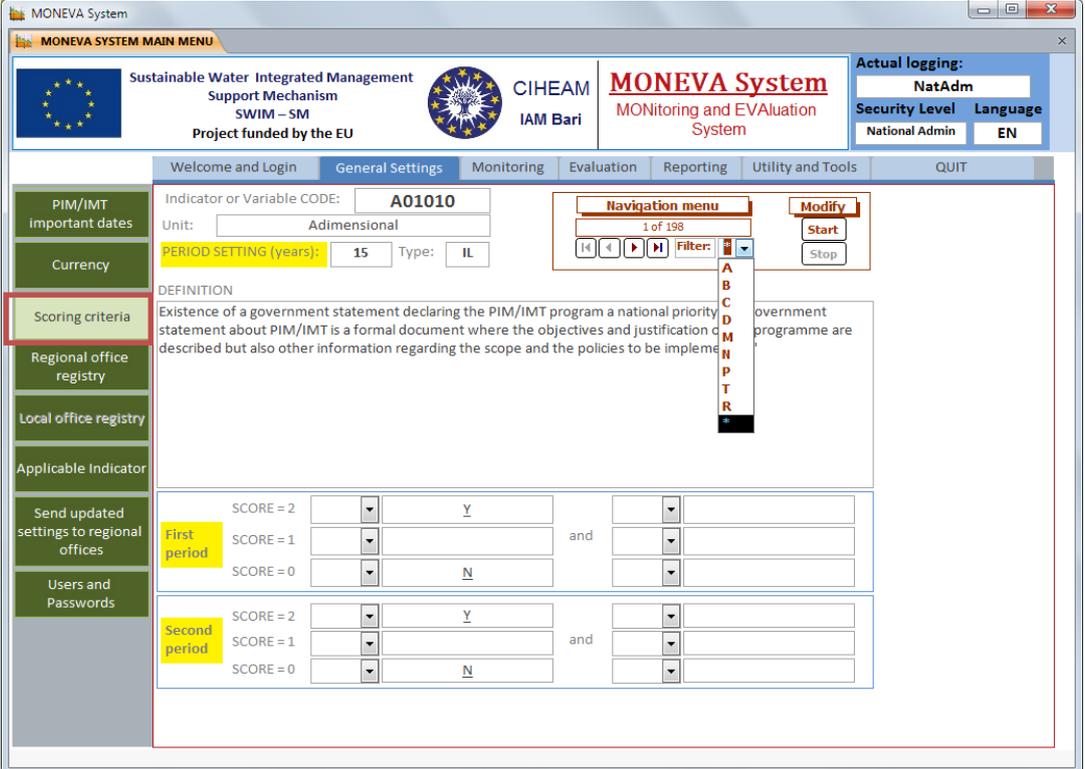
5.3 Section 'Scoring criteria'

In this section, the National Authorities can modify the built-in default scoring criteria of each single indicator in order to fulfill the evaluation programme according to local conditions. Fig. 8 shows the various elements that define the criteria; only the ones highlighted in yellow are editable.

1. **Indicator or variable CODE** – it represents the unique ID of a specific indicator/variable of the M&E system.
2. **Unit** – it represents the measurement unit of the variable/indicator (e.g. l/s, kg, %).
3. **Period Setting (years)** – it represents the number of years for which the scoring criteria relative to the first period apply.
4. **Type** – it represents the type of indicator: IL (Logical); IN (Numerical); IQ (Qualitative); CA (Calculated).
5. **Definition** – it is the verbose description of the variable/indicator.
6. **First period** – it refers to the scoring criteria to apply on the specific variable/indicator during the first period of years.
7. **Second period** – it refers to the scoring criteria to apply on the specific variable/indicator during the second period of years (after the number of years entered in the field Period Setting elapsed).

The 'Navigation menu' in the upper right corner allows for browsing variables/indicators in the entire database, showing the information associated with each one of them. The buttons allow for backward  and forward  browsing.

The Filter combo box can ease this procedure, as variables/indicators are grouped in categories and can be browsed accordingly (see Table 1).



The screenshot displays the MONEVA System interface. At the top, it shows the system name and logos for the European Union, CIHEAM, and IAM Bari. The main menu includes options like 'Welcome and Login', 'General Settings', 'Monitoring', 'Evaluation', 'Reporting', 'Utility and Tools', and 'QUIT'. The 'General Settings' section is active, showing the 'Indicator or Variable CODE' as A01010 and 'Unit' as Adimensional. The 'PERIOD SETTING (years)' is set to 15 and 'Type' to IL. A 'Navigation menu' is open, showing a list of indicators (A, B, C, D, M, N, P, T, R) with a filter dropdown. The 'Scoring criteria' sidebar is highlighted, and the main content area displays the definition: 'Existence of a government statement declaring the PIM/IMT program a national priority statement about PIM/IMT is a formal document where the objectives and justification of the programme are described but also other information regarding the scope and the policies to be implemented'. Below the definition, there are two sections for 'First period' and 'Second period', each with a table for scoring criteria (SCORE = 2, SCORE = 1, SCORE = 0) and corresponding 'Y' or 'N' values.

Fig. 8 - 'General Settings' function: Scoring criteria associated sidebar section

5.3.1 Setting scoring criteria for a specific indicator

Default scoring criteria of any indicator are built-in to the system and displayed for the first and the second M&E period.

Using the 'Navigation menu', browse the system to find the code of any variable/indicator you need to modify/update its scoring criteria, click on the "Start" button under "Modify" to start editing; three cases can be distinguished:

1. The default scoring criteria for the first period are not representative to your country and need to be updated. In this case, set the "PERIOD SETTING" to "0" and modify the criteria by editing the new values/ranges in the appropriate fields of the "Second period" (please refer to Fig. 8 as example).

2. A single scoring criteria applies to the entire M&E period; in this case you can choose one of the following options:
 - a. set the "PERIOD SETTING" to "0" and edit the scoring criteria only for the second period (please refer to Fig. 8 as example) or
 - b. set the "PERIOD SETTING" equal to the "Expected duration of PIM/IMT" and update it if the program gets extended, and edit the scoring criteria only for the first period (Fig. 9).

The screenshot shows the MONEVA System interface. The main menu includes options like 'Welcome and Login', 'General Settings', 'Monitoring', 'Evaluation', 'Reporting', 'Utility and Tools', and 'QUIT'. The current view is for indicator C05070. The 'PERIOD SETTING (years)' is set to 15. The 'First period' and 'Second period' scoring criteria are both set to the same values: SCORE=2 (>= 90), SCORE=1 (>= 80), and SCORE=0 (< 80). The 'Definition' field contains the text: 'Percentage of farmers who are satisfied with the maintenance of the irrigation system. A sample of 20-30 farmers can be selected to express their opinion on this.'

Fig. 9 – Applying a single scoring criteria to the entire M&E period

3. The default scoring criteria are representative to your country in a first period shorter/longer than the one edited in the field "PERIOD SETTING". In this case modify the number of years by editing it in the appropriate field. The system will apply the criteria of the first period for a number of years equal to the one set in "PERIOD SETTING" and then will shift to the criteria of the second period until the "Year of completion". Make sure that the default scoring criteria of the second period apply to your country, otherwise modify them (Fig. 10).

To end the editing session click on "Stop" button.

MONEVA System main menu

Sustainable Water Integrated Management Support Mechanism SWIM – SM
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MONEVA System
MONitoring and EVAluation System

Actual logging:
NatAdm
Security Level: National Admin
Language: EN

Welcome and Login | General Settings | Monitoring | Evaluation | Reporting | Utility and Tools | QUIT

Indicator or Variable CODE: **R04020**
Unit: US\$/Ha
PERIOD SETTING (years): **8** Type: **CA**

DEFINITION
Average value of the crop production per irrigated hectare. The annual trend of this indicator provides a good indication of the effect of the WUAs management in the increase of crop production and its market value

Period	Score	Operator	Value	Operator	Value
First period	SCORE = 2	>=	4000		
	SCORE = 1	>=	800	and	<
	SCORE = 0	<	800		
Second period	SCORE = 2	>=	5000		
	SCORE = 1	>=	1000	and	<
	SCORE = 0	<	1000		

Fig. 10 – Applying different scoring criteria to two distinguished M&E periods

5.3.2 Typologies of scoring criteria

If the indicator is numerical (IN) or calculated (CA), scoring criteria usually range between a minimum and a maximum. Fig. 11 shows the scoring criteria of a numerical indicator that has been set for two distinct periods:

1. First period – The following scores are attributed:
0 for values < 70%; 1 for values >= 70% and < 80%; 2 for values >= 80%.
2. Second period – The following scores are attributed:
0 for values < 80%; 1 for values >= 80% and < 90%; 2 for values >= 90%.

Please note that the three scores cover the entire domain of values with no 'holes'. This is very important to consider when inputting new values and setting the lower and upper limits (from the combo boxes) to modify the default criteria of an indicator.

First period	SCORE = 2	>=	90	and		
	SCORE = 1	>	70			80
	SCORE = 0	<=	70		>	1
Second period	SCORE = 2	>=	80	and	<	2
	SCORE = 1	>	50		>=	3
	SCORE = 0	<=	50		<=	4
						80

Fig. 11 – Indicator with two different scoring criteria referred to two distinguished monitoring periods

If the indicator is of a logical nature (IL), i.e. Yes/No type, the criteria are similar to those shown in Fig. 12 - Scoring criteria for logical (IL) indicators. The values to be set are 'N' for Score 0 and 'Y' for Score 2, while Score 1 is not considered.

First period	SCORE = 2		Y	and		
	SCORE = 1					
	SCORE = 0		N			
Second period	SCORE = 2		Y	and		
	SCORE = 1					
	SCORE = 0		N			

Fig. 12 - Scoring criteria for logical (IL) indicators

5.4 Section 'Regional Office Registry'

At National/Central level, a Registry of all the Regional Offices should be available.

By clicking on '**Regional office registry**' button on the sidebar, a section that allows for the management of the Regional Offices opens (Fig. 13). Each Regional office is identified with a Unique Code (numerical) shown in the upper left corner of the form. To this Unique Code is associated the name of the Regional Irrigation Agency responsible for the PIM/IMT Program. The 'Navigation menu' on the upper right corner allows for browsing the entire database of the Regional Offices by using the backward  and forward  buttons, and for showing the information associated to each of them.

The button  is used to export the Regional Office registry to a PDF file, the  button to print it and the  button to exit the form.

Regional office registry

REGIONAL OFFICE UNIQUE CODE: 52

Name of Irrigation Agency responsible for the PIM/IMT program: Monastir

Navigation menu: Regional Office 1 of 1, New, Insert

DETAILED INFORMATION

Modify detailed information

Stop modify

Click here to delete an existing Regional Office

Click on 'New' to add a new Regional Office and on 'Insert' to save the updates

Detailed information can be edited after clicking on 'Modify Detailed Information' button; when your info is modified click on 'Stop modify'

General info data

Year:	B01041	B01051	B02041	B02061
2005	1	1	1	1

Fig. 13 – 'General Settings' function: Regional office registry associated section

The National Administrator has to prepare a full registry of the Country Regional Offices assigning a unique code to each Regional Office, editing its name and its official e-mail. These are the prerequisites to allow the flow of information between the National and the Regional levels. The Detailed Information section of the form includes the address of the Regional Office, the name of its Director, the contact person who may be different from the director, the phone number and the official e-mail account through which communication between the National and the Regional Office takes place.

The lacking detailed info shall be compiled by the Regional Office itself after it receives the Registry from the National level (with assigned code/name/email) as explained in the following section.

Every time a Regional Office updates its detailed info, this registry has to be sent back to the National level. The procedure to compute this action is detailed in the Users' Guide for Regional Offices (Utility and Tools function).

The General Info section reports any eventual additional info automatically retrieved from the Regional monitoring and is of only Regional interest.

5.4.1 Managing Regional Office Registry

Deleting an existing Regional Office – To delete an existing Regional Office record, browse it and click on  button. A confirmation window will appear.

Editing an existing Regional Office – Browse the database to find the Regional Office you want to edit, then click on  button. Now you can edit all the fields shown in DETAILED INFORMATION section, except the Unique Code. Browsing another Regional Office saves automatically the changes and ends the editing session.

Adding a new Regional Office – Click on  button. A Unique Code will be automatically assigned as a progressive number, but it can be as well manually edited if needed. Edit the name of the new Regional Office. Detailed info are usually edited by the Regional Offices as they report specific info, however a National Administrator can compile/modify the Detailed Information if needed. At the end of the editing process press on  button to definitely insert the new record.

5.5 Section 'Applicable indicator'

This section of the database is used to select and set the indicators applicable to a specific country context. It actually allows for the deactivation of a variable/indicator which will be hidden in the monitoring forms and consequently from the evaluation; or just to suspend the applicability of a variable/indicator in the evaluation stage even though it is still monitored. By clicking on the button "Applicable indicator" on the sidebar, the section shown in Fig. 14 will be displayed.

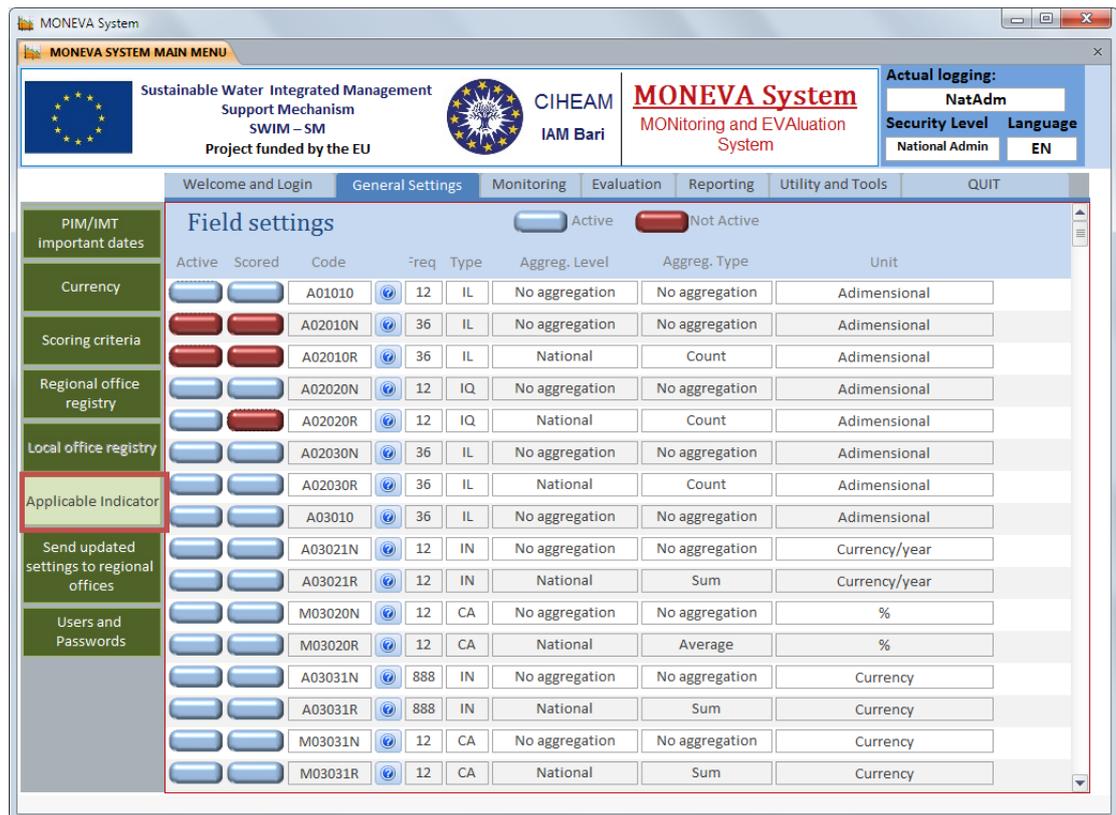


Fig. 14 – 'General Settings' function: Applicable indicators associated section

Actually this section allows the countries to easily customize the M&E system through a user-friendly interface.

To ease the selection of the applicable variable/indicator represented by its code, click on  button. A dialog box showing the output and the outcome to which refers the variable/indicator identified by its code, its short and extended definition will appear (Fig. 15).

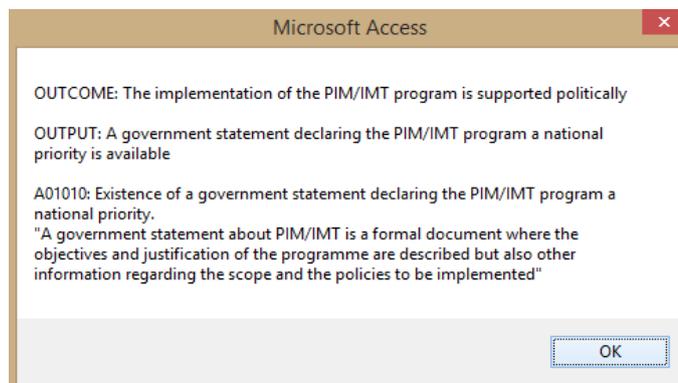


Fig. 15 - Help and info dialogue box of a specific indicator

Please be aware that connected indicators, more specifically parented indicators, are not automatically activated/deactivated.

5.5.1 Setting the indicators application status

By acting on the **'Active'** switch every single indicator can be, activated (blue)/deactivated (red) in the monitoring phase and thus considered/not considered for evaluation. By acting on **'Scored'** switch of a variable/indicator (turning it to red), the National administrator chooses to monitor a variable/indicator but not to score/evaluate it, at least for a certain period.

This procedure helps customizing the process to the country context accounting for the different stages of PIM/IMT program, as a variable/indicator may be applicable in a phase and not in another phase and vice versa. This procedure can be repeated every time it is necessary, however the National Administrator has always to generate the settings updated files and distribute them to the Regions (see 5.6).

For every variable/indicator shown in rows, the following is displayed from left to right (Fig. 16):

- The "Active/Scored" switches
- The unique identification "CODE"
- The associated frequency of monitoring "Freq" in months (12 or 36); once at the start of M&E (code 888)
- The "Type" of the variable/indicator: 'IL' for logic, 'IN' for numerical, 'IQ' for qualitative, 'CA' for calculated
- The "Aggregation level": 'Nat' for national, 'Reg' for regional, 'N-R' for national and regional, 'No aggreg' for no aggregation
- The "Aggregation type": 'Sum', 'Count', 'Average' or 'No aggregation'
- The measurement "Unit"

Field settings		<input type="checkbox"/> Active	<input type="checkbox"/> Not Active						
Active	Scored	Code	Freq	Type	Aggreg. Level	Aggreg. Type	Unit		
<input type="checkbox"/>	<input type="checkbox"/>	A01010	12	IL	No aggregation	No aggregation	Adimensional		
<input type="checkbox"/>	<input type="checkbox"/>	A02010N	36	IL	No aggregation	No aggregation	Adimensional		

Fig. 16 - 'General Settings' function: Setting applicable indicators

Below are described the three possible combinations of the two switches and the consequences on the monitoring and evaluation processes.

5.5.1.1 'Active' switched ON, 'Scored' switched ON

Active Scored The variable/indicator will be monitored and evaluated at the level where it applies: National, Regional or Local.

5.5.1.2 'Active' switched OFF, 'Scored' switched OFF

Active Scored



The variable/indicator will not be monitored nor evaluated. Consequently, the Maximum Number of Points (MNP) in an output/outcome will be reduced by the number of deactivated indicators multiplied by 2 (maximum score that can be attributed to a variable/indicator).

5.5.1.3 'Active' switched ON, 'Scored' switched OFF

Active Scored



The indicator will be only monitored, it will not be scored and thus not evaluated at the level where it applies: National, Regional or Local. Consequently, the MNP of an output/outcome will be reduced by the number of deactivated indicators multiplied by 2 (maximum score that can be attributed to a variable/indicator).

Settings are automatically saved into the database when the switches are operated.

NOTE: THIS FUNCTION HAS BEEN DEVELOPED TO MAKE THE SYSTEM EASY TO ADAPT/CUSTOMIZE AND ACCREDITABLE IN THE COUNTRIES OF THE REGION AS A WHOLE.

HOWEVER, IT IS RECOMMENDED TO CROSS-CHECK THE VALIDITY OF THE SELECTION OF THE APPLICABLE INDICATORS WITH AN IT, THROUGH THE SYSTEM STRUCTURE, SINCE IN MANY CASES THE SAME VARIABLE IS USED TO CALCULATE VARIOUS INDICATORS.

5.6 Send updated settings to Regional Offices

This function is used to distribute all the settings defined by the National Administrator to the Regional Offices: PIM/IMT important dates; Currency; Scoring criteria; Regional office registry; Applicable indicator. The procedure to follow is shown in the scheme of Fig. 17.

Once defined, the National Administrator generates the data files of the updated settings, and with a simple push of the button '**Send updated settings to regional offices**' sends them to all the e mail addresses of the Regional Offices (hierarchically at a lower level) edited in the Regional Registry.

The procedure to follow is shown in the scheme of Fig. 17 and detailed hereafter.

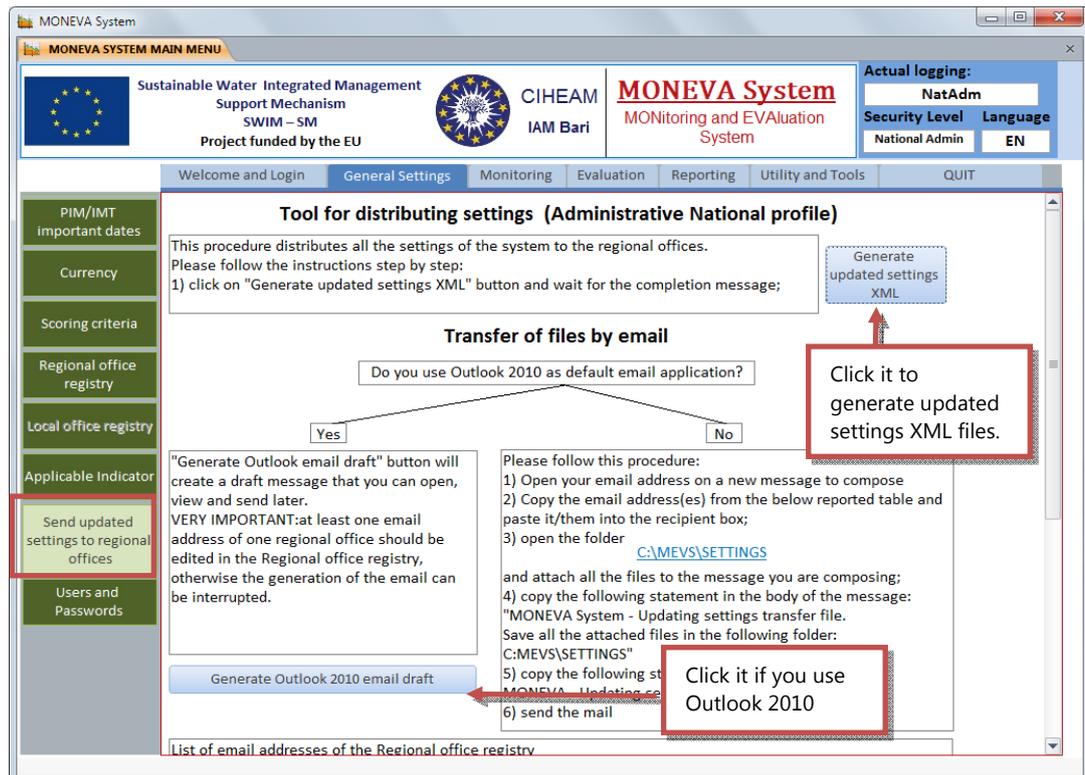


Fig. 17 – ‘General Settings’ function: Send updated settings to Regional Offices associated section

The first step is to click on **‘Generate updated settings XML’** button that will save the updated settings as XML data files, and then wait for the completion procedure message which indicates that the files are saved on your computer to the path C:\MEVS\SETTINGS. The following step concerns sending the XML files to all the Regional Offices and is detailed in the following section.

5.6.1 Sending XML files

There are two ways to send XML files to the Regional Offices. The first is suitable if you use Outlook 2010 as email client. All you have to do is to click on **‘Generate Outlook 2010 email draft’** button and the email client will open on a draft email addressed to the recipient Regional Offices emails (you have on your regional registry) with all the generated XML files attached. You can send the email, edit the draft or save the email and send it later.

The second way to send the generated XML files is to compose the email in your favorite client software or even your webmail account.

Copy the Regional Offices email addresses from the table you find in the lower part of the window (Fig. 18) and paste them in the recipients’ email field.

The screenshot shows the MONEVA System interface. At the top, there is a header with the MONEVA System logo and navigation tabs: Welcome and Login, General Settings, Monitoring, Evaluation, Reporting, Utility and Tools, and QUIT. The main content area is titled "Tool for distributing settings (Administrative National profile)". It contains instructions for distributing settings to regional offices and a "Generate updated settings XML" button. Below this, there is a section for "Transfer of files by email" with a question: "Do you use Outlook 2010 as default email application?". A "Yes" button is selected. A dialog box titled "Information" is open, displaying the message "The draft was correctly created" and an "Ok" button. The sidebar on the left contains various system settings such as PIM/IMT important dates, Currency, Scoring criteria, Regional office registry, Local office registry, Applicable Indicator, Send updated settings to regional offices, and Users and Passwords.

Fig. 18 - Regional Offices email addresses

1. Make sure to include in the body of the email the following message:
"MONEVA System – Updating settings transfer file".
2. Attach to the e mail all the files saved in the following folder:
C:\MEVS\SETTINGS
3. Write in the subject field of the email: "MONEVA System – Updating settings transfer file" (Fig. 19).
4. Send the email.

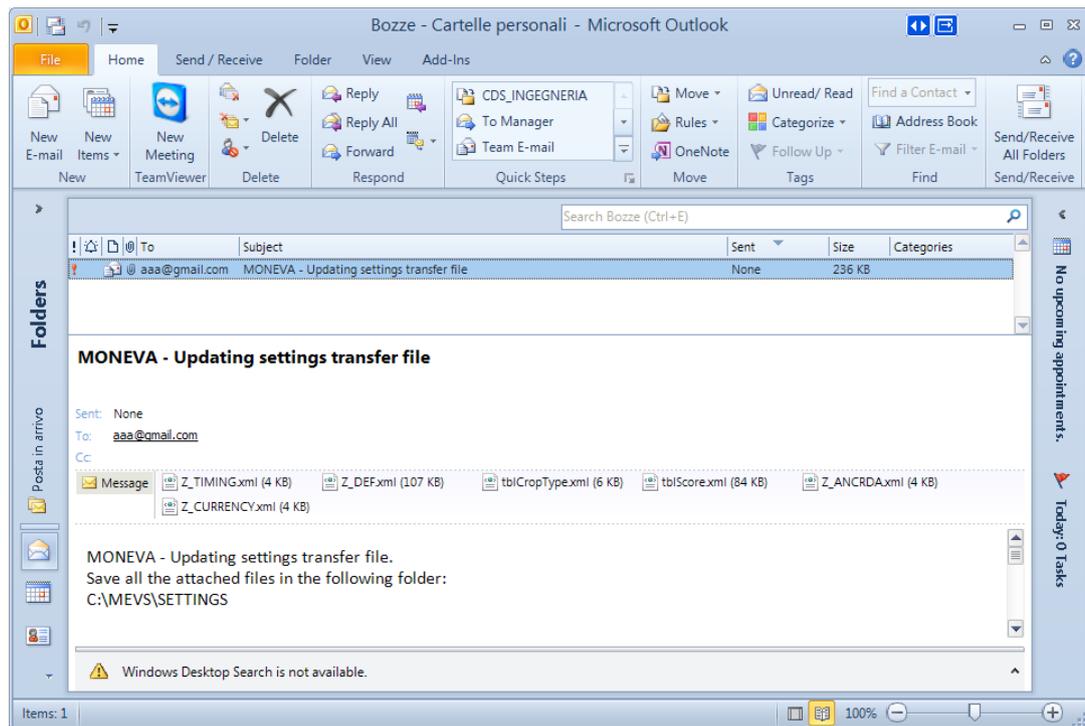


Fig. 19 - Composing the email

You can also copy the XML files from the local folder C:\MEVS\SETTINGS on a CD, Floppy, USB drive or other digital supports to transfer it to the Regional Offices, that have to copy the XML files into their local C:\MEVS\SETTINGS folder.

5.7 Section 'Users and Passwords'

This section allows for the management of the system users' profiles.

New profiles can be added and existing profiles can be edited/modified/updated or cancelled. The lower part of the window shows the list of existing users' profiles.

The 'Navigation menu' in the upper right corner allows for browsing the entire database of the existing users' profiles by using the backward  and forward  buttons. The information associated to each profile will show under the section 'Current user profile' (Fig. 20).

5.7.1 Editing/modifying existing profiles

To edit/modify/update the features of an existing profile, browse the database until it is displayed and then click on 'Start' button under 'Modify' on the upper right corner. Now it is possible to update all of its associated fields, such as the complete name, the user login and the password. This is a must step after the first login is achieved through the default password (see Table 2). 'User Security Level' can be updated as well by choosing the appropriate level from the dedicated combo box.

The system distinguishes four different security levels: National Administrators, Regional Administrators, National Users and Regional Users.

5.7.2 Adding a new profile

To add a new profile, simply click on 'New' button in the 'Navigation menu'. Now it is possible to compile the displayed empty fields: Complete user name, user login, and password and to choose the appropriate 'User Security Level' from the combo box. Once the new user profile is complete of all the needed information, click on 'Insert' button under the 'Navigation menu'. A new row with the newly added profile features will integrate the Users' list (Fig. 20).

A National Administrator profile has a complete access to this section. This privilege enables the Central/National level to have two different profiles on the same computer and to log in the system as National or Regional Administrator. This is important, as the Central level needs to access all the features of the system (and not the Regional database) and in particular cases is responsible to perform actions that are usually of Regional concern.

The screenshot displays the 'Users and Passwords' section of the MONEVA System. The interface includes a navigation menu with buttons for 'New', 'Insert', and 'Modify'. The 'Current user profile' section contains form fields for 'Complete User Name' (aaa), 'User Login' (NatAdm), 'Password' (13579), and 'User Security Level' (National Admin). A 'Users List' table is shown below, listing users with their names, logins, passwords, and security levels. Red annotations highlight the 'New' and 'Start' buttons, with text boxes indicating their functions: 'Click 'New' to add a new user' and 'Click 'Start' to edit existing users'.

Complete User Name	User Login	Password	User Security Level
aaa	NatAdm	13579	National Admin
bbb	NatUser	24680	National User
ccc	RegAdm	abcde	Regional Admin
ddd	RegUser	fghil	Regional User

Fig. 20 – General Settings' function: Users & Passwords associated section

The 'Navigation menu' in the upper right corner allows for browsing the years for which monitoring has been performed and thus to display the available monitoring data using the backward  and forward  buttons, displaying the relative year in the left side box (Fig. 21).

To eliminate an existing year and the associated monitoring data, browse it and then click on  button.

Please note that the first time the M&E system is used, all categories of variables as per their frequency of update are monitored, starting with the section "Once at M&E start" as shown in the following.

6.1 Once at M&E start

Activate this section with a simple click. Ry is displayed by default in the appropriate box. The upper right corner shows the button 'Start' under 'Modify', click it and then start inputting the numerical monitoring data or ticking the appropriate answer for qualitative and logical indicators (Fig. 22).

Please note that the deactivated indicators under 'General Settings' are unavailable and grey colored (see 5.5 'Applicable Indicator' section). To end the editing session click on 'Stop' under 'Modify'.

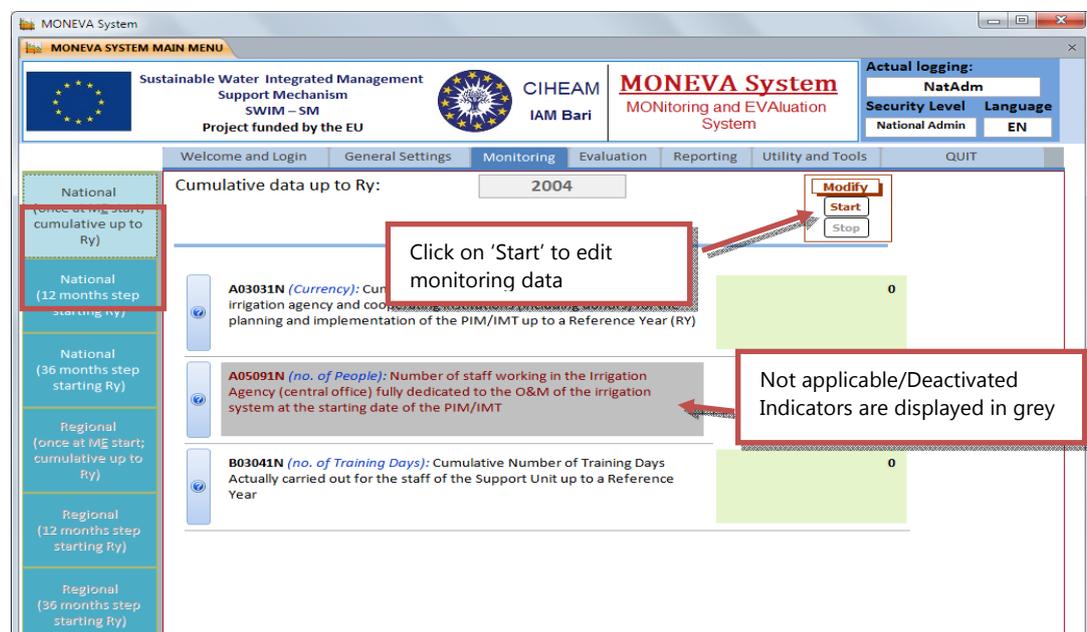


Fig. 22 - Once at the start monitoring

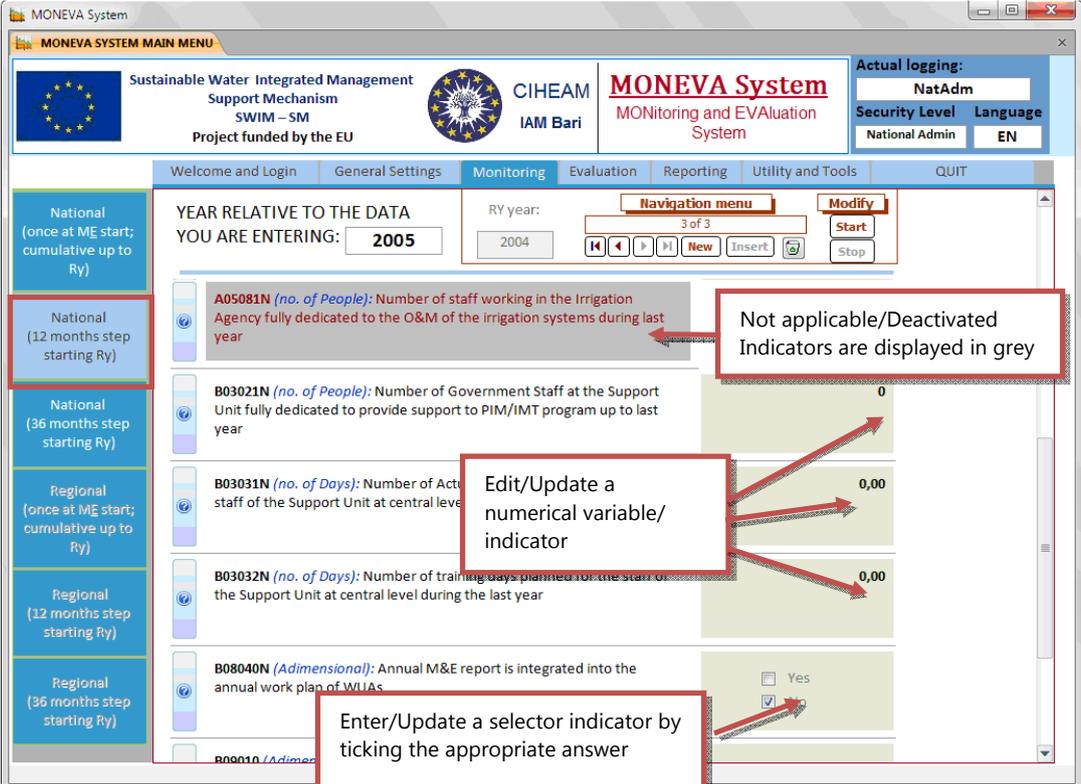
6.2 Starting a 12 months step monitoring process

Activate this section with a simple click. Ry is displayed by default in the appropriate box. If the system is used for the first time, then the year for which the user will input the annual data (i.e. Ry+1) will automatically display in its appropriate box (Fig. 23).

If not, the 'Navigation menu' in the upper right corner allows for browsing the years for which monitoring has been performed and thus to display the available monitoring data using the backward  and forward  buttons.

To access a specific monitoring year and modify or update the existing data, browse it through the 'Navigation menu', click on the 'Start' button under 'Modify' in the upper right corner of the window and start the editing process (Fig. 23). A warning message will display to remind you that you are overwriting existing data and to make sure you are not modifying data already evaluated.

To eliminate an existing year and the associated monitoring data, browse it and then click on the button .



The screenshot displays the MONEVA System interface. At the top, there is a header with logos for the European Union, CIHEAM IAM Bari, and the MONEVA System. Below this is a navigation menu with tabs for 'Welcome and Login', 'General Settings', 'Monitoring', 'Evaluation', 'Reporting', 'Utility and Tools', and 'QUIT'. The 'Monitoring' tab is active, showing a 'YEAR RELATIVE TO THE DATA' section where the year '2005' is entered. A 'Navigation menu' is visible with '3 of 3' items, and a 'Modify' section with 'Start' and 'Stop' buttons. The main area lists several indicators, such as 'A05081N (no. of People): Number of staff working in the Irrigation Agency fully dedicated to the O&M of the irrigation systems during last year', which is greyed out. Other indicators show numerical values like '0' and '0,00'. A 'Yes' checkbox is visible for the indicator 'B08040N (Adimensional): Annual M&E report is integrated into the annual work plan of WIUAs'. Annotations with red boxes and arrows point to these specific elements.

Fig. 23 - Performing the 12 months monitoring process

To input monitoring data of a new year, click on 'New' button in the 'Navigation menu' (Fig. 24). The appropriate box will be automatically populated with the year following the last available in the system.

The upper right corner shows the button 'Start' under 'Modify', click it and then start inputting the numerical monitoring data or ticking the appropriate answer for qualitative and logical indicators (Fig. 24).

Please note that the deactivated indicators under 'General Settings' are unavailable and grey colored (see 5.5 Section 'Applicable indicator' section). To end the editing session and save entered data click on 'Insert' button.

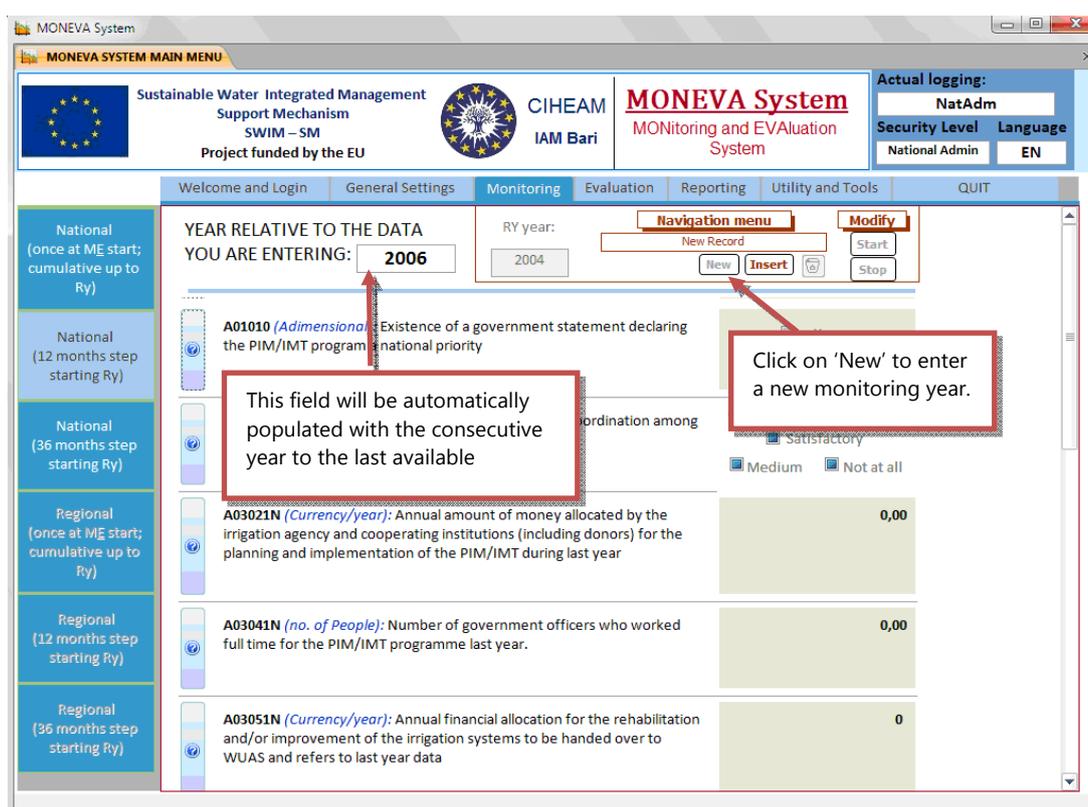


Fig. 24 - 12 Months step: Monitoring a new year

6.3 Starting a 36 months step monitoring process

Activate this section with a simple click. Ry is displayed by default in the appropriate box. This section has the same functions and features as the previous one (12 months step starting Ry), except for the frequency of update (36 months step starting Ry). For example, if Ry is 2004 then the cumulative figures (up to 2004) which respond to the section "once at M&E Start" are entered and 2005 is the first year for which the 12 months and the 36 months step monitoring are performed and evaluation is executed. The consecutive year (2006), only the 12 months step monitoring will be updated and accordingly, evaluation will be executed, whereas the variables/indicators which respond to the section 36 months step will carry the same evaluation results up to 2007. A first update of the 36 months step monitoring should be executed in 2008 (Fig. 25).

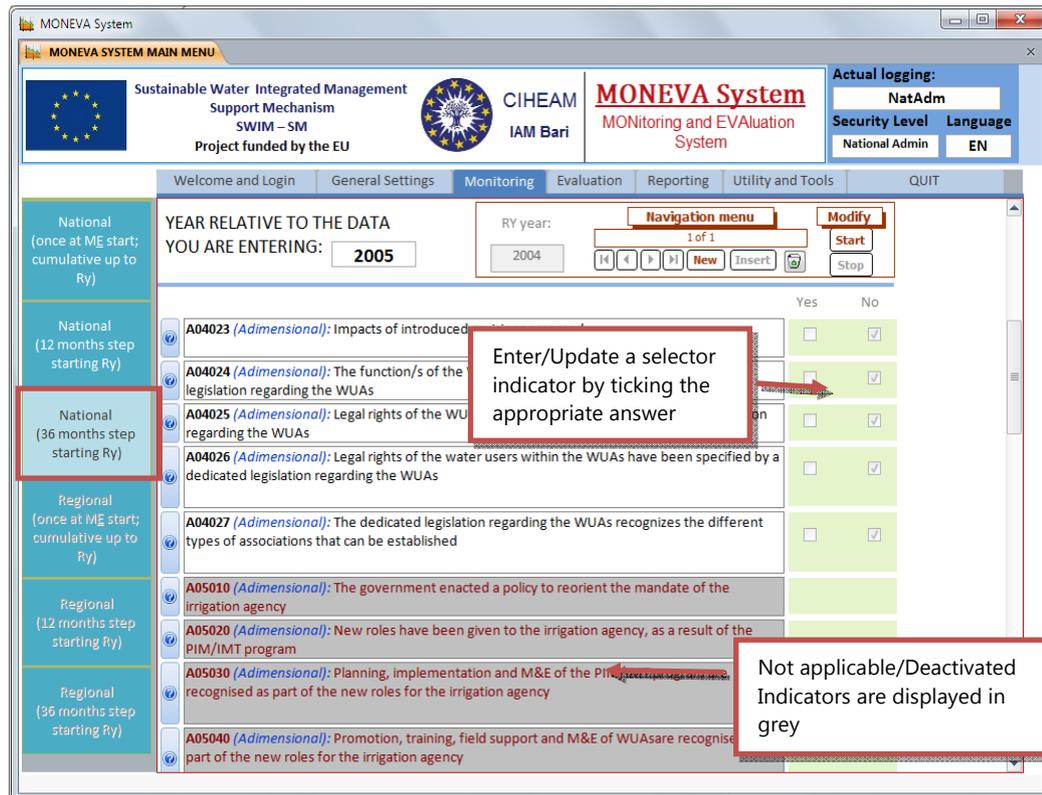


Fig. 25 - Performing the 36 months monitoring process

To input monitoring data of a new year, click on 'New' button in the 'Navigation menu' (Fig. 26). The appropriate box will be automatically populated with the year following the last available in the system.

The upper right corner shows the button 'Start' under 'Modify', click it and then start inputting the numerical monitoring data or ticking the appropriate answer for qualitative and logical indicators (Fig. 26).

Please note that the deactivated indicators under 'General Settings' are unavailable and grey colored (see 5.5 Section 'Applicable indicator' section). To end the editing session and save entered data click on 'Insert' button.

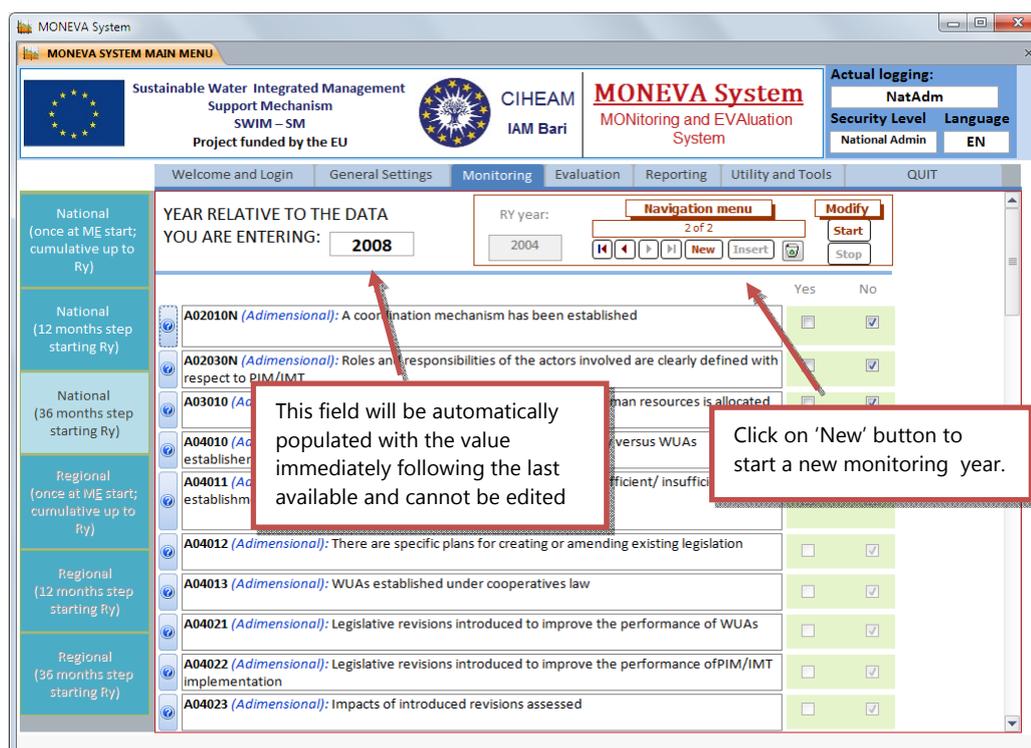


Fig. 26 - 36 Months step: Monitoring a new year

7. Function 'Evaluation'

It refers to "the first level evaluation" generated per outcome and showing the level of achievement per outcome and output. It is assessed by assigning scores to the corresponding variables/indicators according to preset scoring criteria as described in the Introduction.

Evaluation is performed once the monitoring phase is completed. The system distinguishes between two levels: National and Regional.

The national level can perform only its own evaluation and access to the Outcomes A and B_n, in reference to modules A and B - National (see Introduction).

The regional level can perform its own evaluation and access to the Outcomes B_r in reference to module B – Regional, and the one of the affiliated WUAs and access to the Outcomes C and D, in reference to modules C and D (see Introduction).

7.1 National Evaluation per Outcome 12/36 months steps

Clicking on the section National Evaluation per Outcome (12/36 months steps) under the Evaluation function (Fig. 27), a grid of outcomes will be displayed.

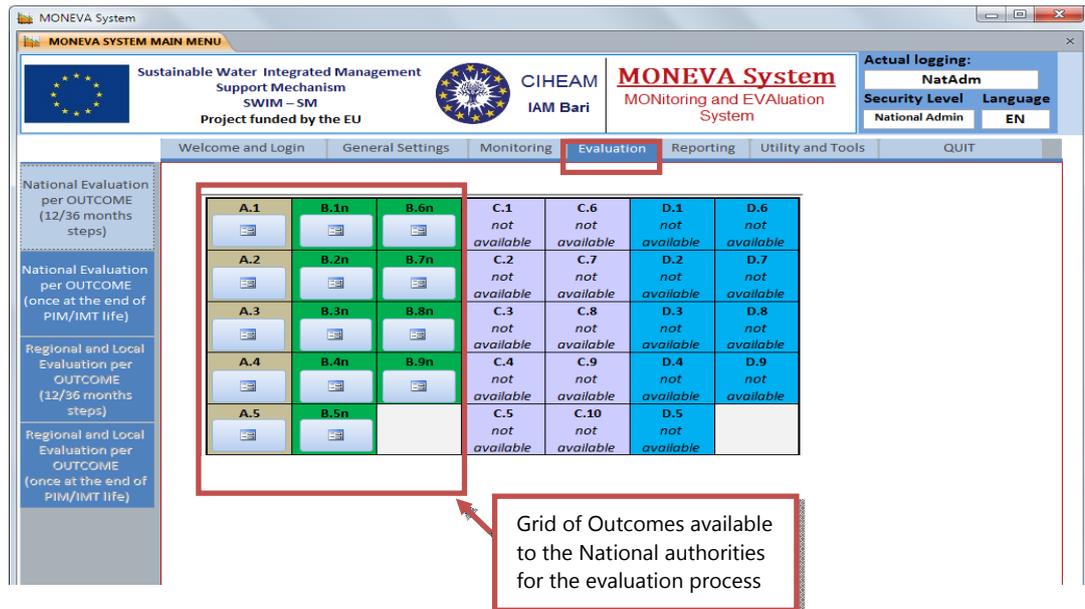


Fig. 27 - The National evaluation process per Outcome 12/36 months steps

Clicking on one of the buttons will open a new window to “the first level evaluation” of the selected Outcome (Fig. 28).

The user should set the variable “**Year to evaluate**” shown in the upper left corner and thus specify the year for which the evaluation of the selected Outcome should be performed and then click on the button “**Evaluate**”.

The first level evaluation form is divided into two parts: the Monitoring part and the Evaluation part.

The monitoring part shows the following (Fig. 29):

1. **The Outcome** – the relative code (A03) and definition are reported in the light blue bar.
2. **The Output(s)** – the relative code(s) (A0301 and A0302) and definition(s) are reported in the yellow bar.
3. **The Indicator(s)** – the identification code (A03010; M03020N...), definition and measurement unit, are displayed.
4. **Graphics** – If a graphic representation of the indicator/variable is generated and made available then the appropriate cell is white colored otherwise it is grey colored.

MONOVA System-main menu Evaluation Outcome

Year: 2006 Evaluate National evaluation Model A03 02/12/2014

Outcome	Output	Indicator	MONITORING			Value entered	Sub Total	EVALUATION			
			Evaluation criteria (in Points)					Indicator	Output Total/MNP	Outcome Total/MNP	
			2	1	0						
A03 - The PIM/IMT program is supported with a national PIM/IMT Plan which is operational											
A0301 - A national PIM/IMT Plan with adequate financial and human resources allocated is available											
		A03010	Y	N	Y	2				4/10 = 40%	6/14 = 42%
		(Adimensional) - A national PIM/IMT plan with financial and human resources									
		M03020				102	2				
		M03020 (%) - Percentage of the annual budget allocated to the irrigation agency for the PIM/IMT programme with respect to the budget two years ago									
		M03032N	> 500	>= 200 and <=500	< 200	0	0				
		M03032N (\$/Ha) - Cumulative amount of money allocated by the irrigation agency and cooperating institutions (including donors) for the planning and implementation of the PIM/IMT up to last year with respect to the total area transferred (also up to last year).									
		M03033N	>= 75 and <=125	>= 40 and <75	< 40 and >125	0	0				
		M03033N (DTN/Ha) - Cumulative amount of money allocated by the irrigation agency and cooperating institutions (including donors) for the planning and implementation of the PIM/IMT up to last year with respect to the total area transferred (also up to last year).									
		M03040N	>= 100	>= 90 and <100	< 90	0	0				
		M03040N (%) - Percentage of the total human resources allocated by the irrigation agency to the PIM/IMT programme in last year with respect to two years ago									
Two Outputs defining the same Outcome											
Year: 2006 National evaluation Model A03 02/12/2014											
Outcome	Output	Indicator	MONITORING			Value entered	Sub Total	EVALUATION			
			Evaluation criteria (in Points)					Indicator	Output Total/MNP	Outcome Total/MNP	
			2	1	0						
A0302 - An annual budget for rehabilitation is available											
		M03050N	>= 100	>= 90 and <100	< 90	107	2			2/4 = 50%	6/14 = 42%
		M03050N (%) - Percentage of the annual financial allocation for the rehabilitation or improvement of transferred irrigation systems last year with respect to 2 years ago									
		M03063	>= 1000	>= 500 and <1000	< 500	0	0				
		M03063 (\$/Ha) - Cumulative financial allocations for the rehabilitation and/or improvement of the irrigation systems per 1000 hectares of irrigable area transferred up to last year.									
		M03064									
		INDICATOR OR VARIABLE NOT SCORED									

Fig. 28 – Overview of the evaluation window

5. **Evaluation criteria (in Points)** – represented with three columns correlating the points that can be scored (2, 1, 0) according to the preset specific criteria of each variable/indicator. For example, the logical indicator A03010 of Fig. 29 may score 2 points for 'Y' and 0 for 'N'; score 1 is not considered. The numerical indicator M03020N may score 2 for a value greater or equal to

100, 1 for a value smaller than 100 but greater or equal to 90, and 0 for a value smaller than 90.

- 6. **Value entered** – represents the inputted value of the variable/indicator during the monitoring phase and according to which the score is assigned.
- 7. **Sub Total** – it is the number of points scored by each variable/indicator as per the entered value and based on the evaluation criteria.

The evaluation part shows the following (Fig. 29):

- 8. **Indicator** – This column verbosely explains what does the indicator represent/evaluate, what indications it can provide and how to interpret the result.
- 9. **Output Total/MNP** – This yellow column represents the total number of points scored by an Output i.e. the sum of the scores achieved by all the output indicators over the MNP that can be achieved. The example shown in Fig. 29 refers to Output A0301 which achieved 4 points over a MNP of 10 (Maximum of 2 points per 5 indicators) i.e. the level of achievement of the output is 40%.
- 10. **Outcome Total/MNP** – This light blue column represents the total number of points scored by an Outcome i.e. the sum of the scores achieved by all the Outputs over the MNP that can be achieved. The example shown in figures 28 and 29 refers to Outcome A03 which achieved 6 points out of a MNP of 14 (M03064 being not scored; Please refer to section 5.5) . Actually, this Outcome is evaluated through two Outputs A0301 and A0302 which achieved 4 and 2 points out of a MNP of 10 and 4 respectively, setting the level of achievement of the outcome at 42%.

Year: 2006		National evaluation Model A03		02/12/2014								
Outcome	Output	Indicator	Graphics	MONITORING			EVALUATION					
				Evaluation criteria (in Points)			Value entered	Total	Sub	Indicator	Output Total/MNP	Outcome Total/MNP
				2	1	0						
A0302 - An annual budget for rehabilitation is available												
	M03050N			>= 100	>= 90 and <100	< 90	107	2	This indicator tries to verify the continuity of nationwide funds and their trend for rehabilitation works in the transferred areas. A growing trend is considered positive during the early life of PIM/IMT. The scoring criteria for this indicator may need local adaptation depending on the age of PIM/IMT	2/4 50%	6/14 = 42%	
	M03063			>= 1000	>= 500 and <1000	< 500	0	0	This indicator provides an assessment of how much money has been invested in the rehabilitation of transferred irrigation system by the central irrigation agency/government. To facilitate the understanding of the result, it is referred to "per 1000 ha of irrigable area". According to international experience, an average of about U.S. \$ 1000 per 1000 ha or greater is spent on rehabilitation of transferred schemes. The scoring criteria for this indicator may need local adaptation			
	M03064											
INDICATOR OR VARIABLE NOT SCORED												
Overall scores per Output and Outcome as compared to a MNP to achieve												

Fig. 29 – Details of the evaluation window

The three buttons    shown in the upper part of the window allow respectively to export the evaluation sheet as a PDF file, to print it out or to close it.

NOTE: THE FOLLOWING INDICATORS COMPARE 2 CONSECUTIVE YEARS; SO PLEASE BE AWARE THAT WHEN YOU APPLY THE SYSTEM FOR A FIRST ANNUAL EVALUATION I.E. FOR THE YEAR RY+1, THESE INDICATORS WILL BE "NULL". YOU CAN ACCOUNT FOR THEIR RESULTS STARTING RY+2.

M03020N; M03020R; M03040N; M03040R; M03050N; M03050R; M05080N;
M05080R; N07021; P07060; P08010; P08020; R05010; R05020; R06020.

8. Function 'Reporting'

This function provides for a series of tools enabling the user to perform the second and third level evaluation and allows for completing the evaluation figure, conferring to the M&E system the characteristics of a DSS.

8.1 Section 'Statistical calculation'

This section allows for the second level evaluation as reported in the introduction. Where it applies, local monitoring data are aggregated at Regional level and/or National level, and Regional data at National Level. Statistics are performed on Numerical (Sum, Average, Minimum and Maximum) and Logical (Count) variables/indicators (Fig. 30).

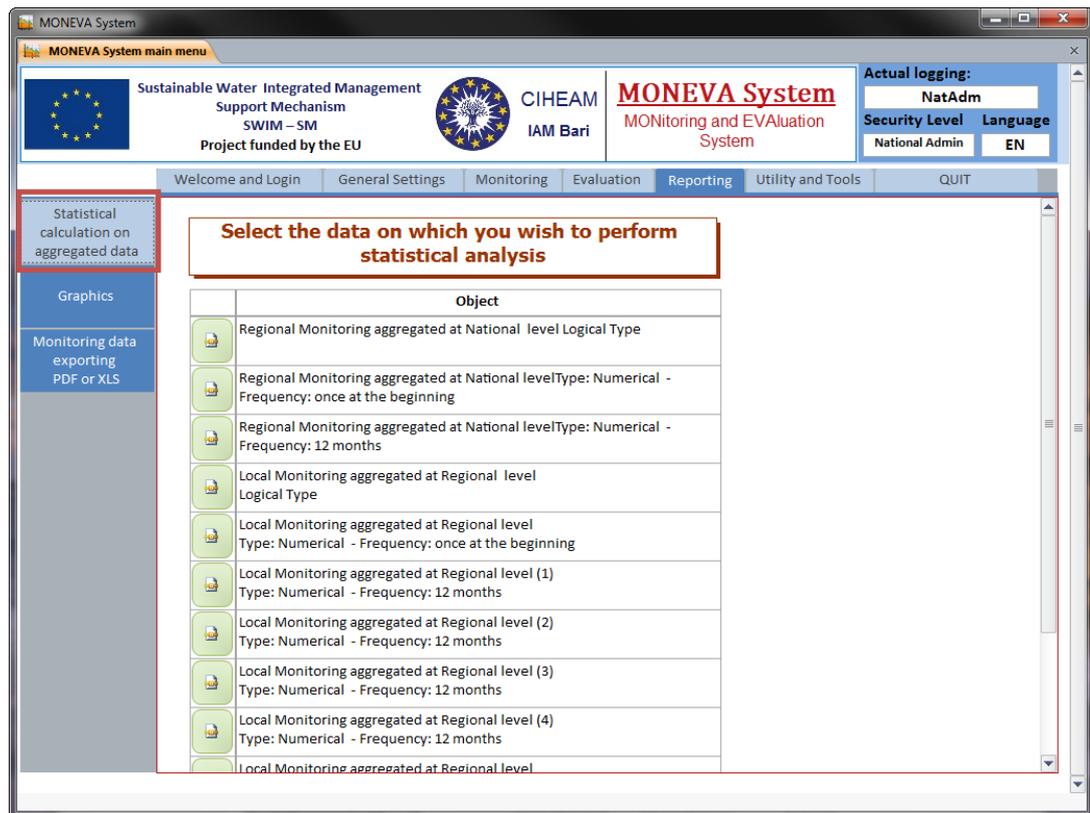


Fig. 30 - Statistical calculation on aggregated data

Clicking on one of the available buttons for the second level evaluation, a new window opens where the year for which the statistics are needed should be selected from the Combo box. Clicking on 'Statistics', the calculations are executed for the appropriate variables/indicators which codes are displayed. Fig. 31 reports on 2007 statistics, of the Regional Logical variables (12 months and 36 months steps) aggregated at National level. The Count and the percentage of the different answers (YES/NO) given at Regional Level and the National answer are reported. These Statistics can be exported to a PDF file clicking on the button in the upper right corner of the window .

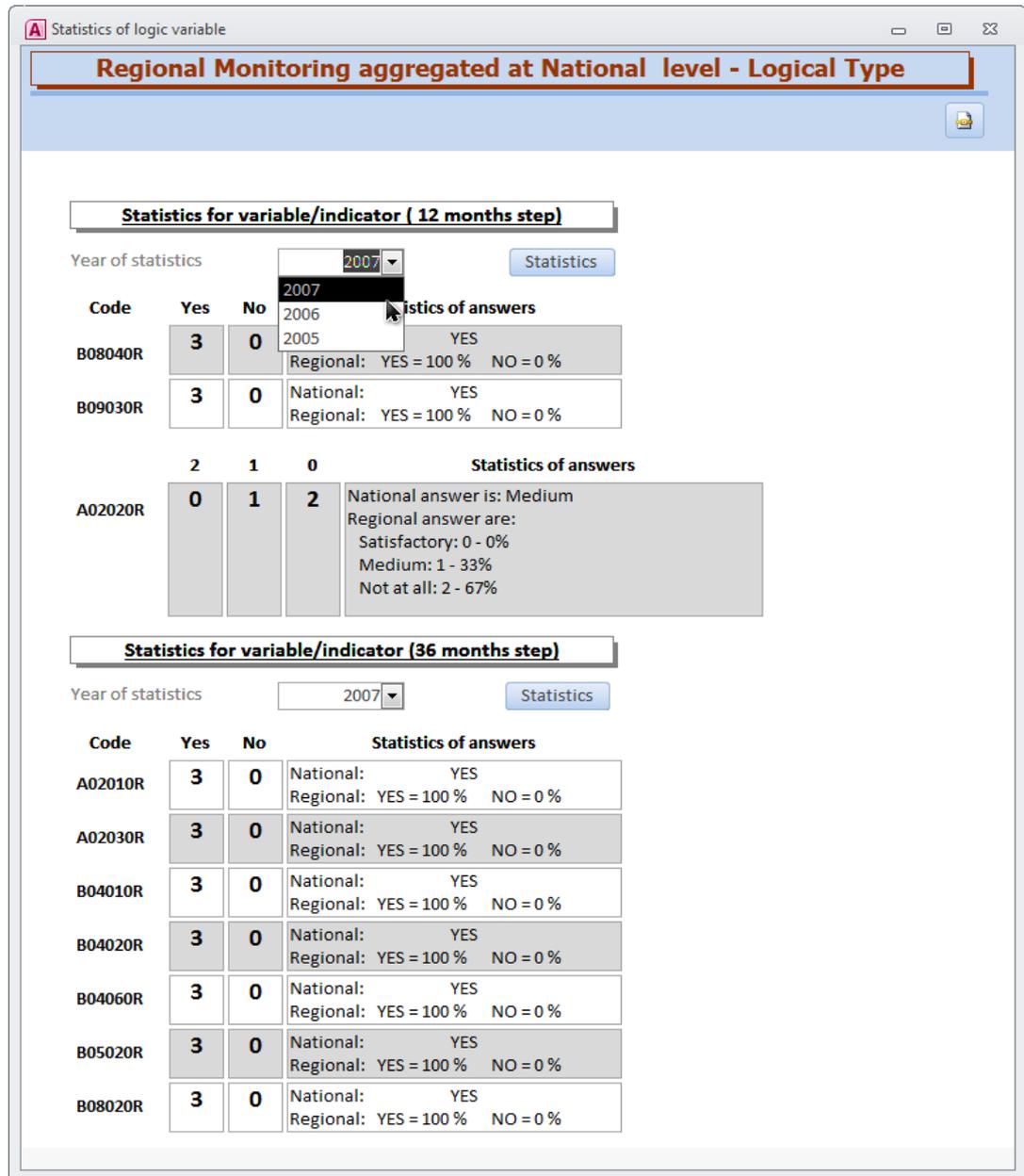


Fig. 31 - Regional statistics of logical indicators aggregated at National level (12 and 36 months steps)

An example of the statistics of the Regional Numerical variables aggregated at national level, with frequency once at the beginning, are shown in Fig. 32. In the upper part of the window the values of three numerical indicators (columns) related to the Regions (rows) identified by their respective codes are displayed.

The lower part of the window shows some basic statistics executed on these variables/indicators i.e. sum, average, maximum and minimum. The symmetry of distribution of the variable/indicator among the considered regions is drawn as well on the graph, to report on the comparative state of progress/implementation.

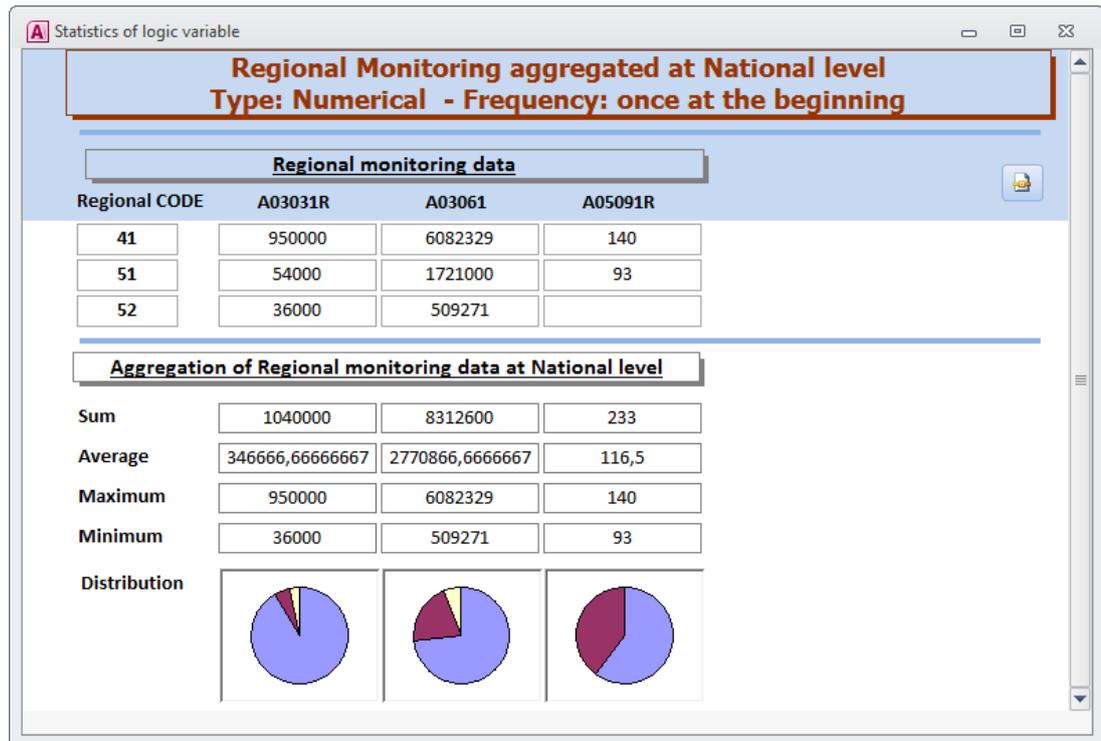


Fig. 32 - Regional statistics of numerical variables aggregated at National level (Frequency once at the beginning)

By clicking on **“Regional Monitoring aggregated at National level -Type: Numerical – Frequency: 12 months”** a new window will open (Fig. 33). Input the year for which statistics are needed in the box **“Year”** at the upper right corner and then click on **“Refresh”**. The values in the below boxes, showing the Regional values per variable/indicator will be updated and statistics executed accordingly.

These tables can be exported to a PDF file clicking on the button in the upper right corner of the window .

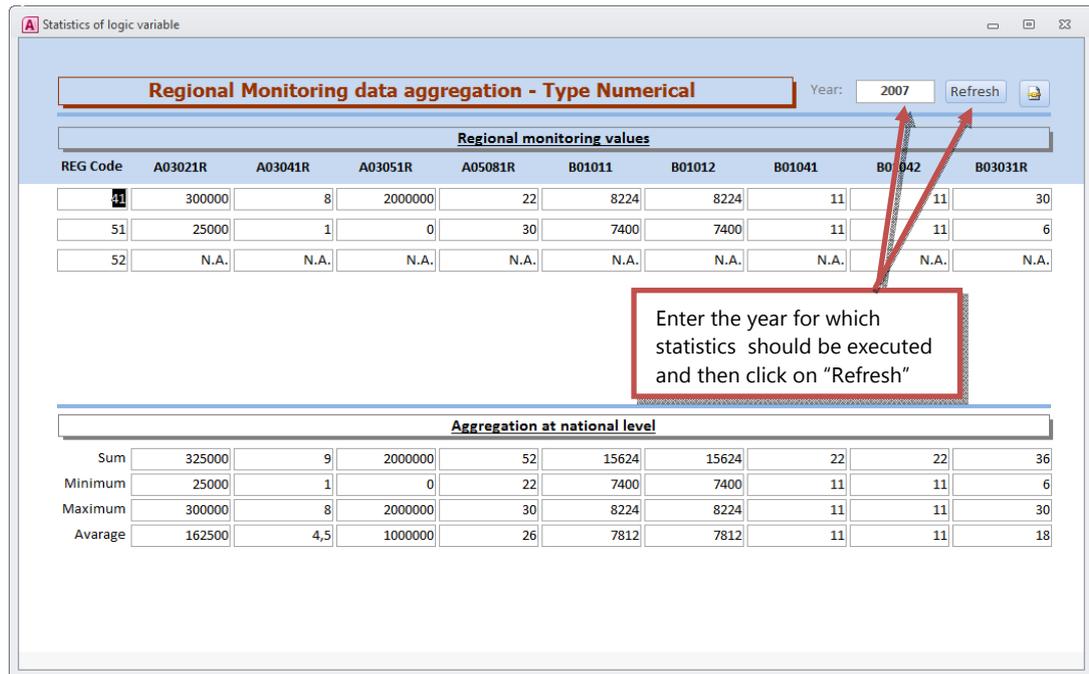


Fig. 33 - Regional statistics of numerical variables aggregated at National level (12 months step)

8.2 Section 'Graphics'

This section allows for the visualization of trend graphs of correlated variables and/or indicators, using the data stored in the database. Each graph is assigned a unique code which starts with the letter "G", followed by the letter which represents the affinity module i.e. A, B, C or D and four digits (Fig. 34).

A series of available buttons allow to browse the existing graphs, to view them, and to show the related values organized in tables. The generated graph can be as well exported and thus embedded in an external document (Fig. 34).

Browse the graph (represented by its code) that you need to view using the   buttons. The correlated variables represented by their unique code and definition will show (Fig. 34). Click on "**View Graph**" to generate the requested graph in a new window (Fig. 35).

Click on "**View Table**" to open a new window showing the numerical values of the graph organized in a table (Fig. 36).

Click on "**Export Graph**" to export to an Excel file saved in the path C:\MEVS\REPORTS\GRAPHS AND TABLES the graph and the correlated table of values for any further elaboration.

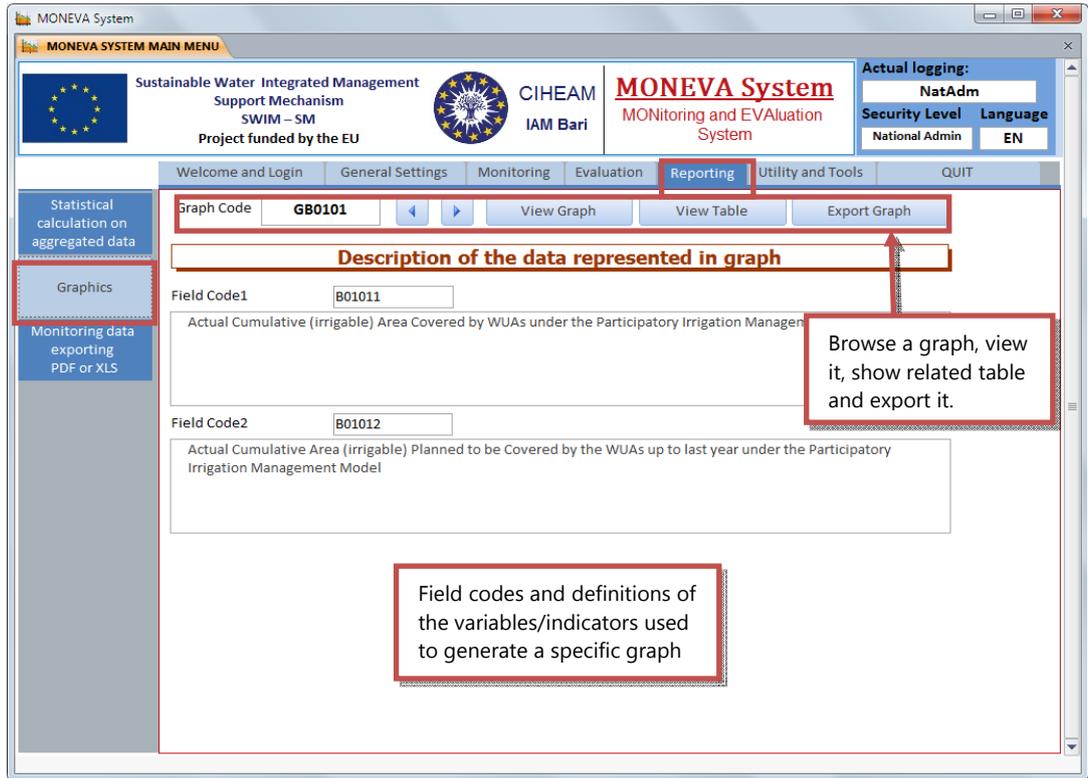


Fig. 34 - Graphics section and features

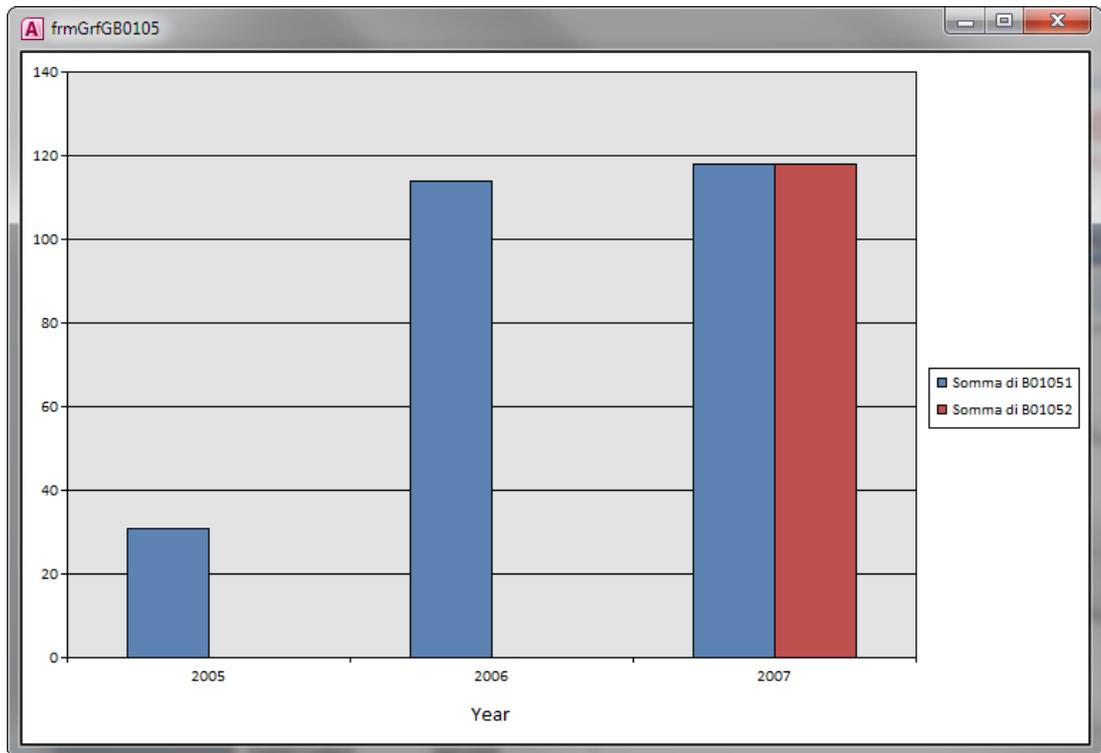
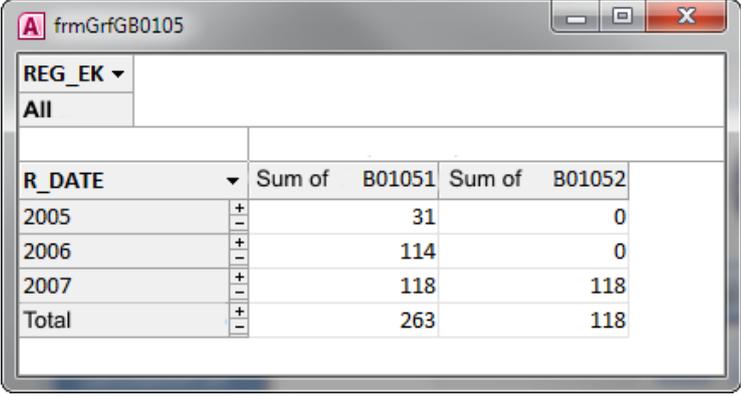


Fig. 35 – Window showing the generated graph

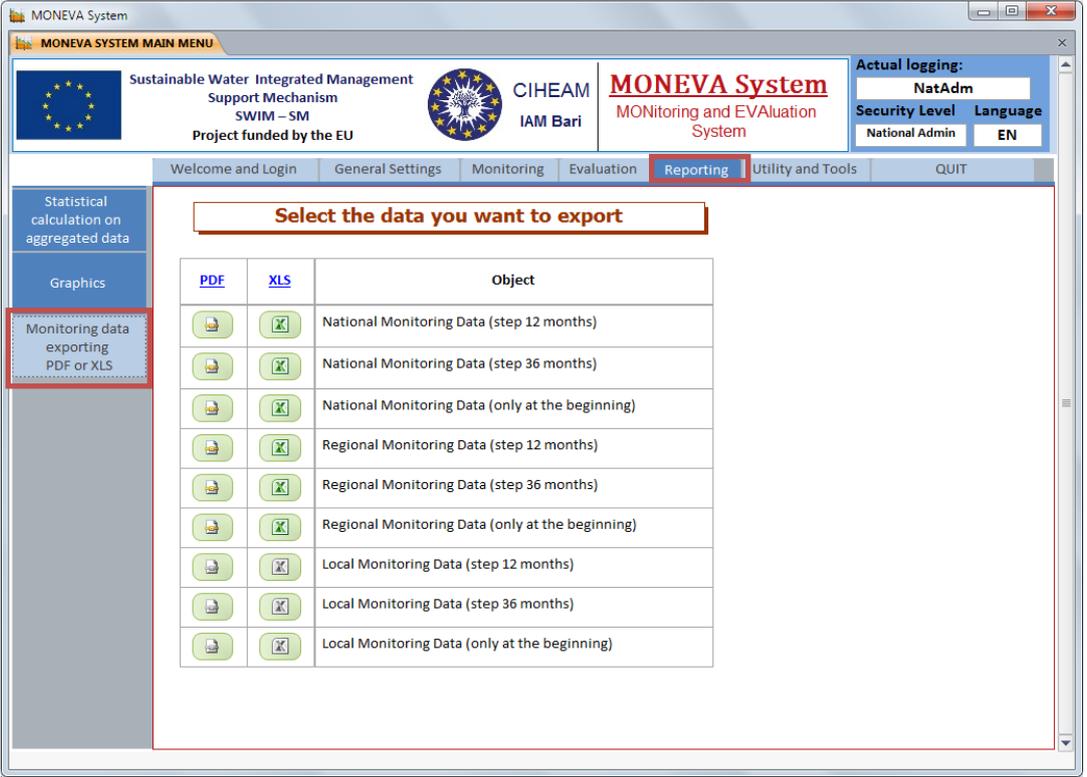


R_DATE	Sum of B01051	Sum of B01052
2005	31	0
2006	114	0
2007	118	118
Total	263	118

Fig. 36 – Window showing the graph values organized in a table

8.3 Section 'Monitoring data exporting'

This section makes available, to a National Administrator and/or User, the National and Regional monitoring data of the database, organized per level and per frequency of update (i.e. 12 months and 36 months step and once at M&E start) (Fig. 37).



MONEVA System

MONEVA SYSTEM MAIN MENU

Sustainable Water Integrated Management Support Mechanism SWIM – SM Project funded by the EU

CIHEAM IAM Bari

MONEVA System MONitoring and EVALuation System

Actual logging: NatAdm
Security Level: National Admin
Language: EN

Welcome and Login | General Settings | Monitoring | Evaluation | **Reporting** | Utility and Tools | QUIT

Select the data you want to export

PDF	XLS	Object
<input type="checkbox"/>	<input checked="" type="checkbox"/>	National Monitoring Data (step 12 months)
<input type="checkbox"/>	<input checked="" type="checkbox"/>	National Monitoring Data (step 36 months)
<input type="checkbox"/>	<input checked="" type="checkbox"/>	National Monitoring Data (only at the beginning)
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Regional Monitoring Data (step 12 months)
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Regional Monitoring Data (step 36 months)
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Regional Monitoring Data (only at the beginning)
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Local Monitoring Data (step 12 months)
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Local Monitoring Data (step 36 months)
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Local Monitoring Data (only at the beginning)

Fig. 37 - Monitoring data exporting section

These data can be exported as PDF or Excel files, respectively to the following destinations: C:\MEVS\REPORTS\ and C:\MEVS\REPORTS\GRAPHS AND TABLES.

9. Function 'Utility and tools'

This function provides for a variety of tools, essential to facilitate the management of the system, but most of all to ensure the retrieve of data between the National and the Regional level.

9.1 Section 'Retrieve data'

This section allows the National Office to retrieve, check and incorporate into its database, the Regional detailed info and the Regional monitoring data of all frequencies sent by the Regional Offices (Fig. 38).

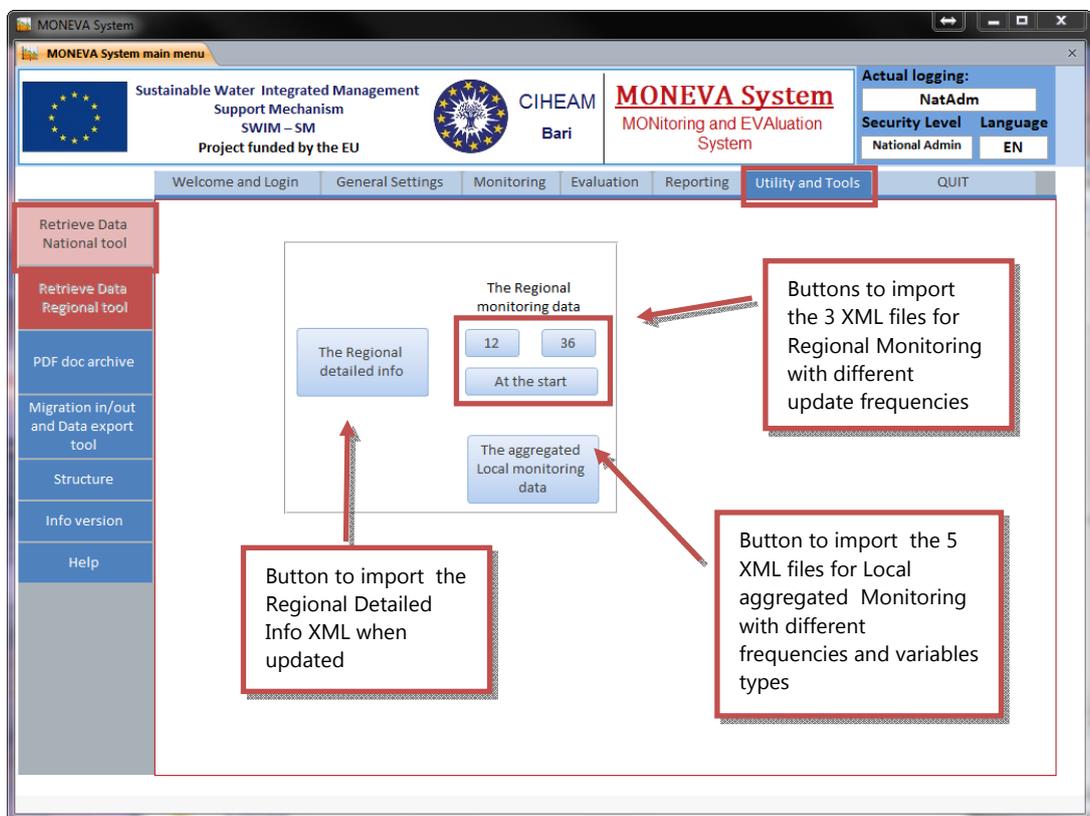


Fig. 38 - "Utility and Tools" Function: "Retrieve Data" associated section

In total, a Region can send a maximum of 9 files to incorporate into the National/Central database. The following 4 XML files incorporate the Regional detailed info and the Regional Monitoring data:

1. The Regional Detailed Info: Code Region_DetInfo.xml
2. The Regional 12 months step monitoring: Code Region_Monitoring_012.xml
3. The Regional 36 months step monitoring: Code Region_Monitoring_036.xml

4. The Regional once at the start monitoring: Code Region_Monitoring_888.xml

And the following 5 XML files incorporate the Local aggregated data:

1. The aggregated local logical indicators with update frequency 12 months:
AGGR_LOG_Code Region_Monitoring_012.xml
2. The aggregated local logical indicators with update frequency 36 months:
AGGR_LOG_Code Region_Monitoring_036.xml
3. The aggregated local numerical indicators with update frequency 12 months:
AGGR_NUM_Code Region_Monitoring_012.xml
4. The aggregated local numerical indicators with update frequency 36 months:
AGGR_NUM_Code Region_Monitoring_036.xml
5. The aggregated local numerical indicators with update frequency Once at the start: AGGR_NUM_Code Region_Monitoring_888.xml

First download the e-mails received and then save the "XML" files attached to the e mail or sent to you using any other available digital support into "C:\MEVS\Retrieve Regional Data" (Fig. 39).

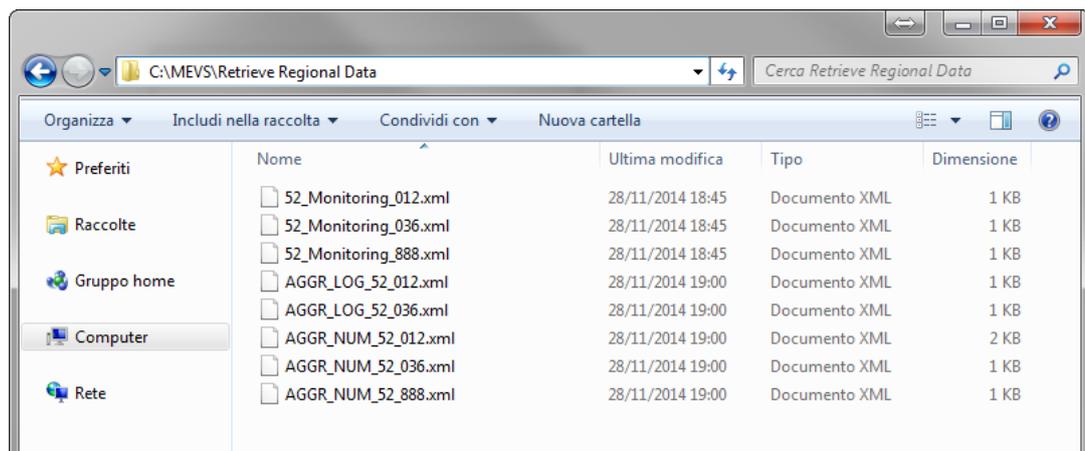


Fig. 39 - The XML files of the Regional and Local aggregated monitoring data

9.1.1 Importing Regional detailed info

Click on "**The Regional detailed info**" to open a new window which allows to select the appropriate file to import (Fig. 40). One file can be selected at one time. Chose "Code Region_DetInfo.xml" and wait for the opening of a new window where the detailed info saved as xml will display (Fig. 41). When clicking on "Update detailed info", the updated data of the corresponding Region will be incorporated into the National database and deleted from the window to avoid any future overwriting. Repeat the same procedure until all the available Regional Detailed Info files are incorporated into your system.

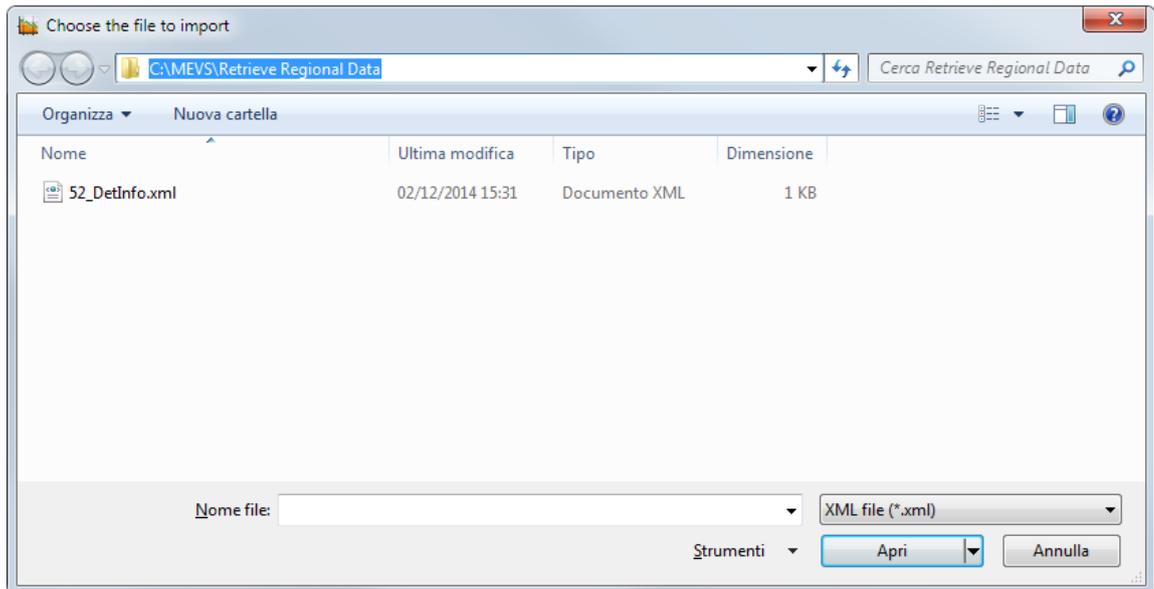


Fig. 40 - Importing Regional Detailed info

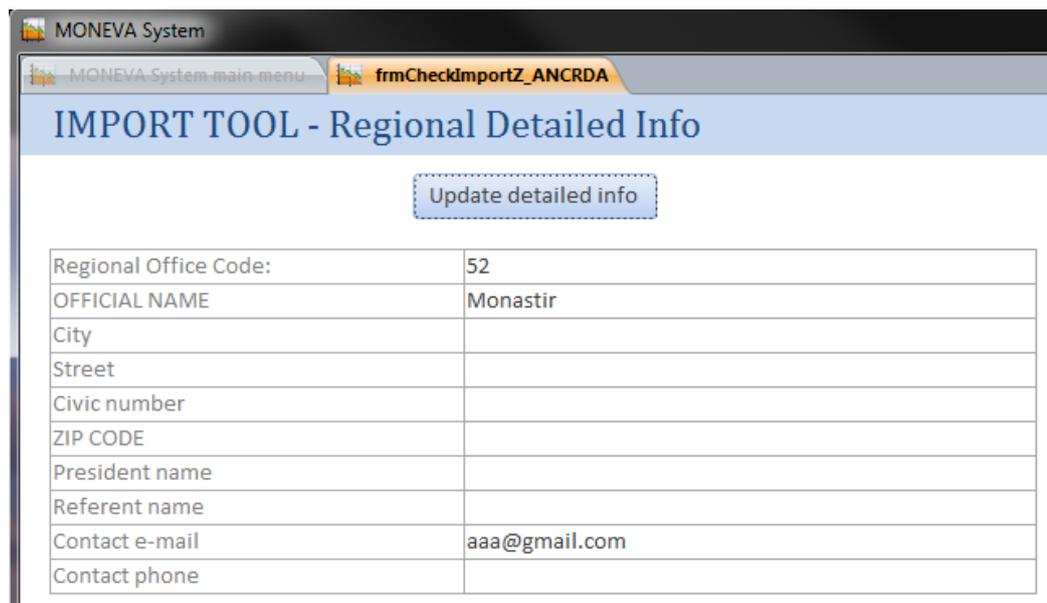


Fig. 41 - Updated Regional Detailed info window

9.1.2 Importing Regional monitoring data

Click on "12" (Fig. 38) to open a new window which allows to select the appropriate file to import and chose "Code Region_Monitoring_012.xml" (Fig. 42). One file can be selected at one time. A message will inform you about the success of import procedure and immediately after, the xml file will be automatically deleted to avoid overwriting errors in future imports. At this stage the "12 months step monitoring" of one Region is incorporated into the Central/National database. Repeat the same

procedure until all the available 12 months step monitoring files are incorporated into your system.

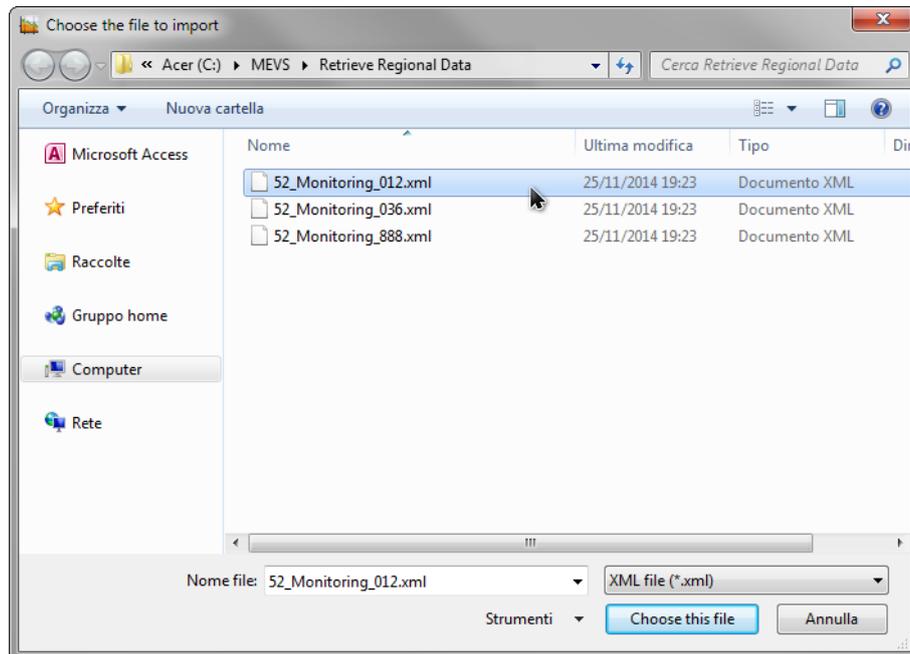


Fig. 42 - Importing 12 months step Regional monitoring data

Click on **"36"** (Fig. 38) to open a new window which allows to select the appropriate file to import and chose **"Code Region_Monitoring_036.xml "** (Fig. 43). One file can be selected at one time. A message will inform you about the success of import procedure and immediately after the xml file will be automatically deleted to avoid overwriting errors in future imports. At this stage, the **"36 months step monitoring"** of One Region is incorporated into the Central/National database.

Repeat the same procedure until all the available 36 months step monitoring files are incorporated into your system.

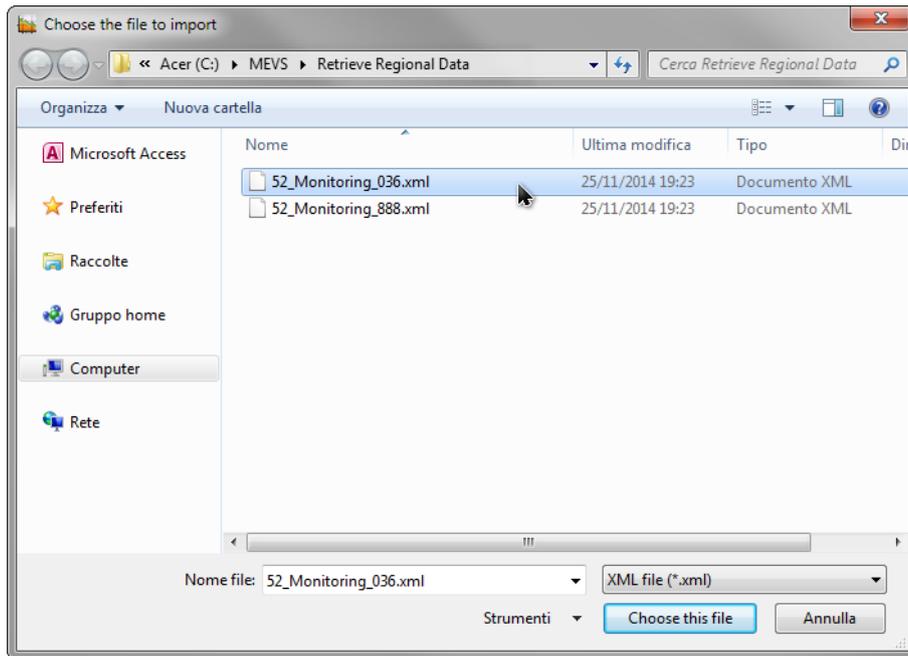


Fig. 43 - Importing 36 months step Regional monitoring data

Click on **“at the start”** (Fig. 38) to open a new window which allows to select the appropriate file to import and chose **“Code Region_Monitoring_888.xml”** (Fig. 44). One file can be selected at one time. A message will inform you about the success of import procedure and immediately after the xml file will be automatically deleted to avoid overwriting errors in future imports. At this stage, the **“Once at the start”** monitoring of One Region is incorporated into the Central/National database.

Repeat the same procedure until all the available Once at the start monitoring files are incorporated into your system.

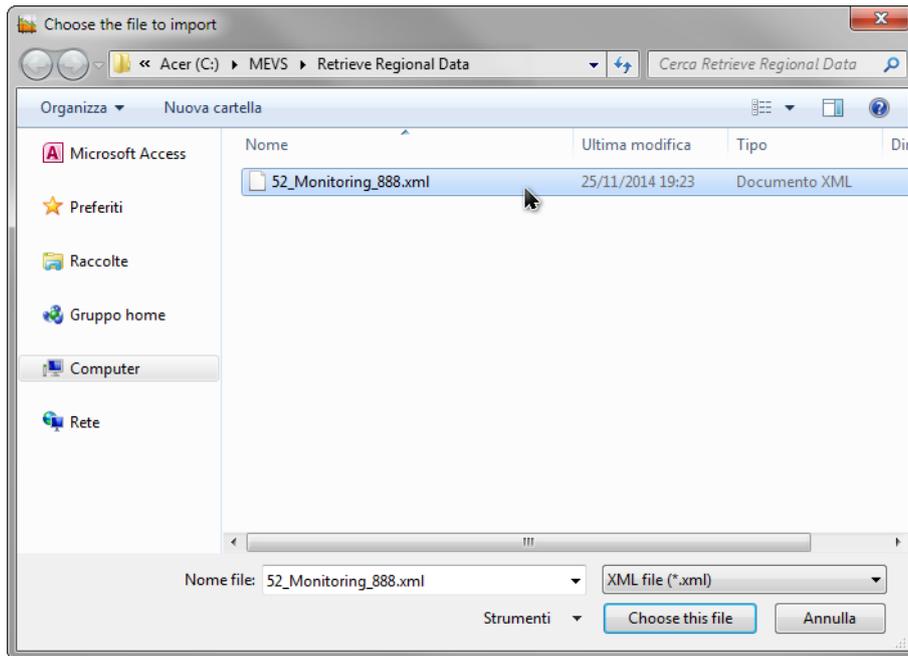


Fig. 44 - Importing once at the start Regional monitoring data

9.2 Section 'PDF doc archive'

As pre-announced in the introduction, simple PDF modules consisting of fields that allow for a pre-guided compilation are used to perform monitoring at local level by the WUAs. Different types of PDF modules are prepared as listed hereafter:

- 1 - Local office – Detailed info module
- 2 - Local office – Monitoring module, once at the start frequency
- 3 - Local office – Monitoring module, 12 months frequency
- 4 - Local office – Monitoring module, 36 months frequency
- 5 - Modification request of Monitoring Data
- 6 - Comments on Evaluation

All the PDF forms are available under "PDF doc archive" section of the MONEVA System (Fig. 45). To open a specific form, double click the corresponding icon.

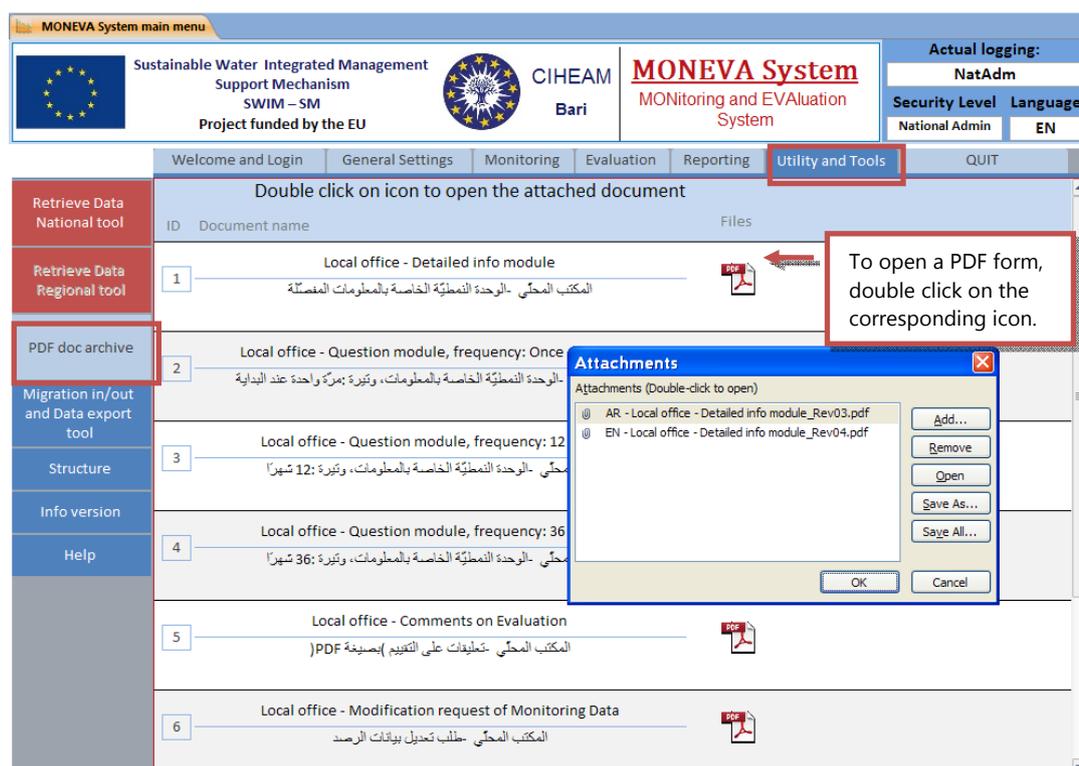


Fig. 45 - Section "PDF Doc archive"

Any PDF form can be customized if needed by a National Administrator (Fig. 46). Actually, at the end of each module a field named "Insert customization password" is available. Once this field is filled in with the appropriate password, (available at the National Level), all fields are made customizable. Checking any field will disable it in the PDF module (Fig. 47). This Feature allows for a flexible, adaptable system to the specific conditions of a Country. It is actually the analogue of the section "Applicable Indicator" of the database.

However, the customization of PDF module Local office – Monitoring module once at the start frequency is mandatory, and does not require any password. It shall take place when PIM/IMT dates are defined, by inputting Ry, saving the customized form and distributing it to the Local Offices.

The customized PDF file can be saved only if Acrobat Professional is available on your computer.

It is the duty of the National/Central Level to re-distribute to the Regional Offices any customised PDF module. The Regional Office on its turn, has the duty to provide the Local offices with the customised modules. This procedure allows to perform a coherent and standardised M&E starting from the local and going up to the National level.

For detailed information about the Local M&E, please refer to "Local Office: Working with PDF Forms" Users' guide.

<input type="checkbox"/> C02061	<input type="checkbox"/> C03052	<input type="checkbox"/> C04041	<input type="checkbox"/> C05081	<input type="checkbox"/> C06102	<input type="checkbox"/> C09022	<input type="checkbox"/> D05021	
<input type="checkbox"/> C02062	<input type="checkbox"/> C03071	<input type="checkbox"/> C04042	<input type="checkbox"/> C05082	<input type="checkbox"/> C06111	<input type="checkbox"/> C09023	<input type="checkbox"/> D06010	
<input type="checkbox"/> C02063	<input type="checkbox"/> C03081	<input type="checkbox"/>	<div style="border: 1px solid red; padding: 5px; display: inline-block;"> Checking a field makes it unavailable/hidden in the PDF form </div>			<input type="checkbox"/> C09024	<input type="checkbox"/> D06020
<input type="checkbox"/> C02080	<input type="checkbox"/> C03091	<input type="checkbox"/>				<input type="checkbox"/> C10020	<input type="checkbox"/> D09013
<input type="checkbox"/> C02090	<input checked="" type="checkbox"/> C03101	<input type="checkbox"/>	<input type="checkbox"/> C10040	<input type="checkbox"/> D09023			
<input type="checkbox"/> C02100	<input checked="" type="checkbox"/> C03102	<input type="checkbox"/> C04062	<input type="checkbox"/> C06040	<input type="checkbox"/> C06131	<input type="checkbox"/> C10050		

Insert customization password

Fig. 46 – Customization of PDF files. Checking (making unavailable) fields C03101 and C03102

Page 4 / 13

Current date

Irrigable area that is served with open canals

C03091 Ha

Example of two hidden fields.

Irrigable area under sprinkler irrigation

C03103 Ha

Fig. 47 – Fields C03101 and C030102 are hidden in the PDF form after customization

9.3 Section 'Migration and data export tool'

This section allows the Administrators, both at National and Regional level to import and export all the data and settings of MONEVA System. This function is intended for backup and security (export) as well as for migration purposes, allowing to shift to the use of a new release of the software preserving the data and settings of the system (Fig. 48).



Fig. 48 - Migration data tool

The export and import procedure refers to all the files contained in the system folder C:\MEVS\MIGRATION that is created during the installation procedure.

When clicking on 'Migrate data OUT' button, the export procedure will start, creating a series of Excel files in the above mentioned folder (Fig.).

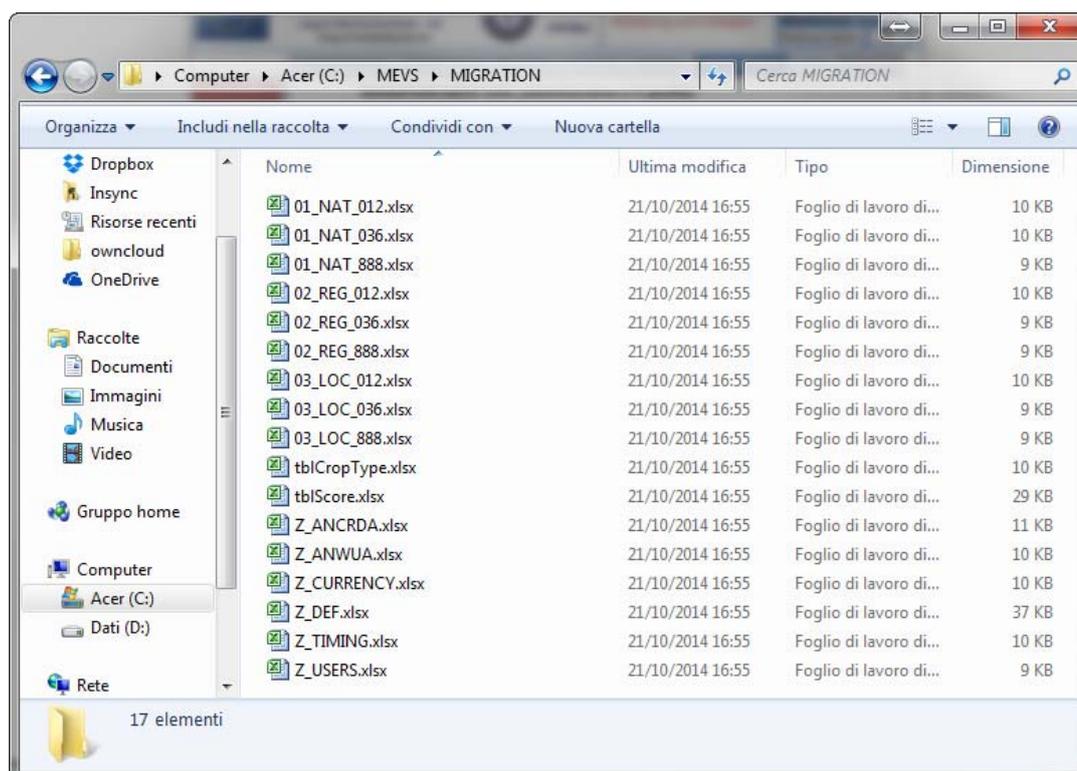


Fig. 49 - Exported data and settings files

When the export procedure is completed, make sure to compress and save the files in a safe directory, to avoid accidental overwriting, and to preserve a backup of your data and settings.

To import existing data and settings, the first step to accomplish is to save all the files into path C:\MEVS\MIGRATION and to subsequently click on 'Migrate data IN' button. A warning message will display reminding you that the import process will overwrite all data and settings currently present in the system.

The import procedure could be used by National Authorities or other subjects to evaluate different periods of M&E or even different databases related to several Countries. This is an important feature that allows for benchmarking, even though it is not a main objective of the current project.

9.4 Section 'Structure'

This section allows to navigate the entire structure of the M&E System and to verify the different relationships among Outcomes/Outputs/Indicators.

The displayed window shows a list of all outcomes considered in MONEVA System, while the horizontal bar right above allows for a series of filters to better browse the database structure. Filters could be activated by ticking the selected Outcome, Output or Indicator Code (Fig. 50).

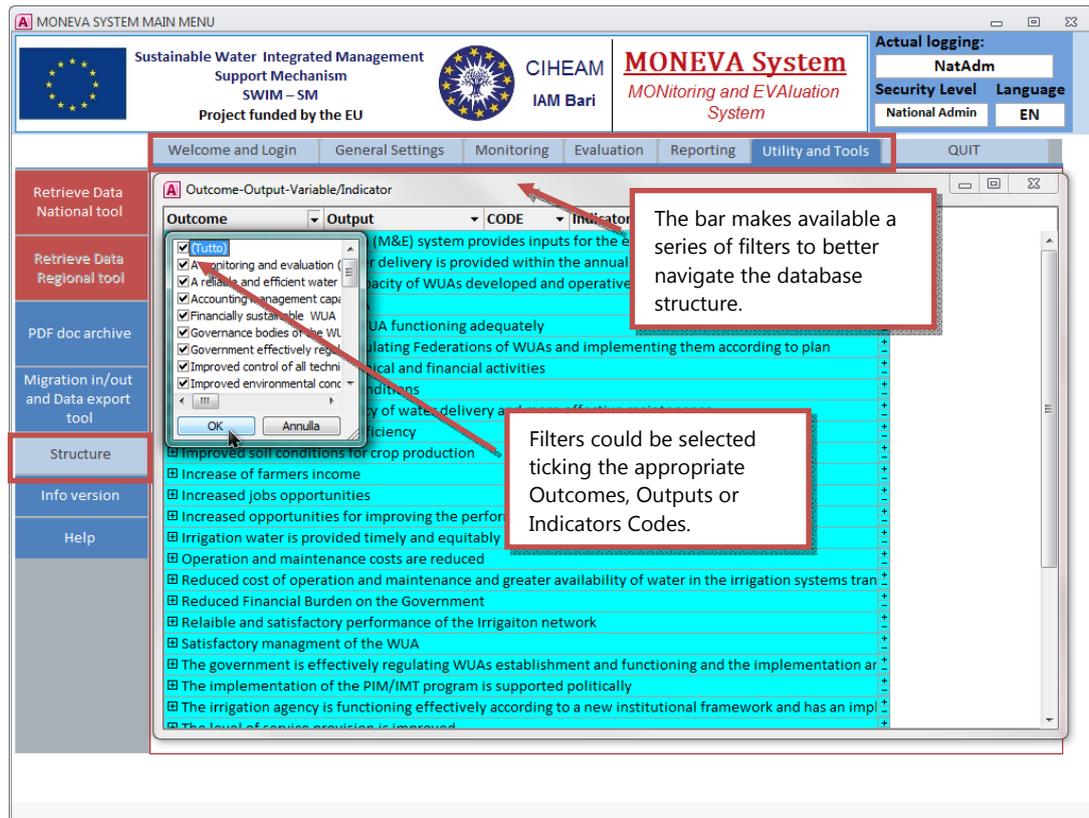


Fig. 50 – Navigating through the system structure: Outcomes/Outputs/Indicators

Clicking on the plus sign beside each Outcome/Output definition, the structure opens up and shows the associated indicators represented with their codes and definitions (Fig. 51). To close the structure window, click the X button in the upper right corner.

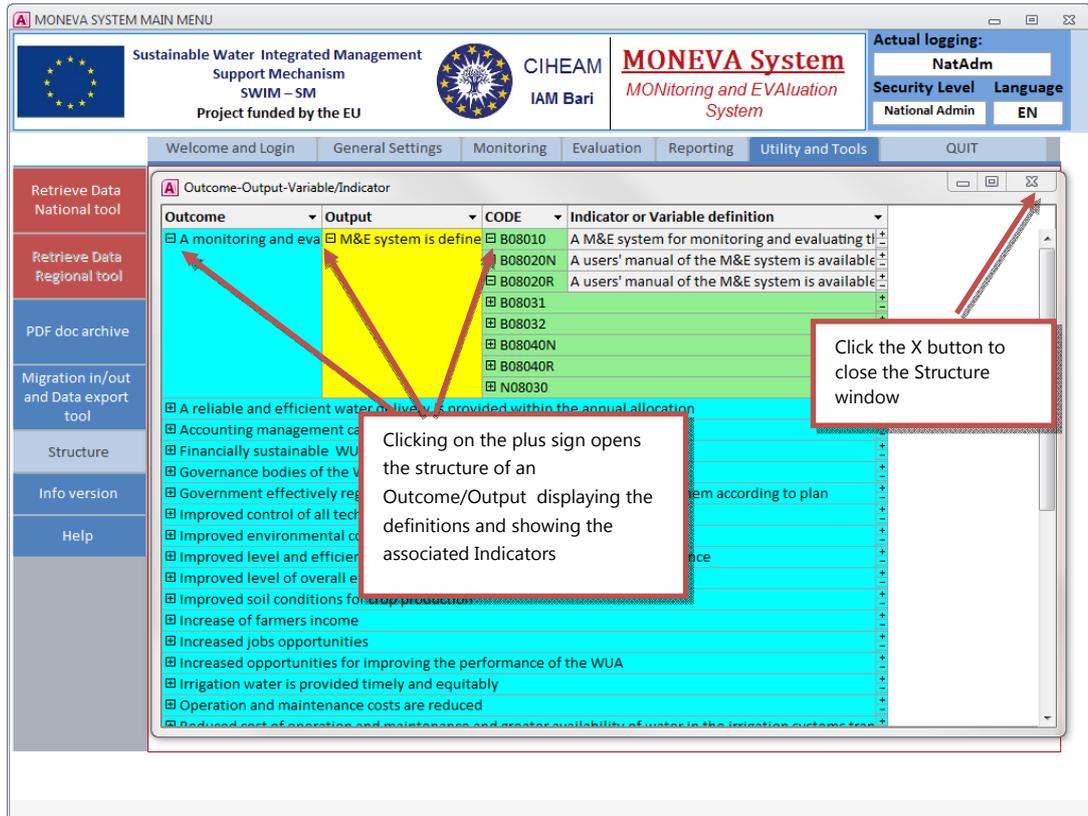


Fig. 51 - Details of specific Outcomes/Outputs/Indicators structure