

# Exercise No. 2 for Group 2

## Objective

To calculate variables C05081, C05082, C06091, C06092.1 (Actual and budgeted total “maintenance costs” and “direct maintenance costs”) and Variable C08021 (Costs of repairs to illegal use)

## Instructions

1. Read the section 7 of the Procedures and Data Collection Forms (Module C) and follow them with attention
2. Distribute to each participant of the group the “Maintenance log book” for the variables C05081, C06091 & C08021 (15 copies available in the Annex 1) to record the resources used for each maintenance activity and their costs including repairs to illegal use.
3. Each participant will create a maintenance activity for which the corresponding data and cost will be entered in the “Maintenance log book”<sup>1</sup>. To guarantee some uniformity in the data used it is recommended to sue the following hourly cost for the resources

**Table 1 Hourly cost of the resources**

Resources	Name/ kind	Unit	Cost per hour
WUA staff 1	Salam	h	80.00
WUA staff 2	Abu Zeid	h	20.00
WUA staff 3	Salah	h	25.00
Worker 1	labourer	h	36.00
Worker 2	Technician	h	20.00
Worker 3	Labourer	h	20.00
Machine 1	Tractor 60 HP	h	40.00
Machine 2	Cement mixer	h	40.00
Machine 3	Pick –up	h	30.00
Material 1	Cement	sack	2.00
Material 2	Sand	M3	3.00
Material 3	Wood	M3	2.50
Material 4	Gravel	M3	2.00
Material 5	Iron	kg	7.00
Replacement part 1	Valve Ø 4”	unit	90.00
Replacement part 2	Flanges Ø 4”	Unit	40.00
Replacement part 3	Pipe PVC Ø 4”	m	6.00
Replacement part 4	Flowmeter	Unit	500.00
Replacement part 5	Valve Ø 2”	Unit	35.00

<sup>1</sup> Note for the Coordinator of the group: If the number of participants is more than 10 it is suggested to group participants in pairs to reduce the number of activities. Otherwise the time for filling the info may not be sufficient

4. The Coordinator of the group fills MANUALLY the information of each participant in the table 7.2 (below) . ALTERNATIVELY he /she can enter the information in the Processing sheet of the Excel file called MONEVA data processing (Local level) V.12, rows, 200 to 228

**Table 7. 2: Example of Data entry and processing form of the summary of the recorded maintenance activities costs for the variables: C05081, C06091 & C08021**

Maintenance activity Number	Starting date	Ending date	Description of maintenance activity	Total Maintenance costs of activity (Variable C05081)	Total Direct <sup>(a)</sup> Maintenance costs of activity (Variable C06091)	Total Costs of repair due to Illegal abstraction <sup>(b)</sup> (Variable C08021)
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
<b>Total</b>						

<sup>(a)</sup> Notice that the time cost of permanent maintenance staff is not included when calculating the direct maintenance costs (C06091)

<sup>(b)</sup> This is equal to the cost of the maintenance activity if the maintenance was related to repair due to illegal abstraction

**ANNEX 1. LOG BOOK FOR THE MAINTENANCE ACTIVITIES**

Form No. L.7.1: Maintenance log book for the variables C05081, C06091 & C08021; to record the resources used for each maintenance activity and their costs including repairs due to illegal use

<b>Dates (from/to)</b>									
<b>Consecutive number of maintenance activity</b>	1								
<b>Description of the maintenance activity</b>									
<b>Is the maintenance related to illegal use</b>	Yes		No						
<b>Location of the activity</b>									
<b>Description of the Resources used</b>	<b>WUAs staff</b>		<b>Materials</b>		<b>Spares &amp; replacement parts</b>		<b>Unit cost per hour (JD / hr)</b>	<b>Unit cost of material or replacement parts</b>	<b>Cost of resource</b>
	Name of staff &/or machine	No. of hour worked	Type and unit	Amount used	Type	No. used			
Staff 1 <sup>2</sup>									
Staff 2 <sup>10</sup>									
Staff 3 <sup>10</sup>									
Staff 4 <sup>10</sup>									
Worker 1									
Worker 2									

Columns to the right will be filled by the WUA financial Officer

<sup>2</sup> Notice that the time cost of permanent maintenance staff is not included when calculating the direct maintenance costs (C06091)

Worker 3							
Worker 4							
Machine 1							
Machine 2							
Machine 3							
Machine 4							
Material 1							
Material 2							
Material 3							
Material 4							
Material 5							
Replacement part 1							
Replacement part 2							
Replacement part 3							
Replacement part 4							
Preplacement part 5							
<b>Total maintenance cost of activity No12 (Relevant to Variable C05081)</b>							
<b>Total direct maintenance cost of activity No12 (Relevant to Variable C06091)<sup>3</sup></b>							
<b>Cost of repair if due to illegal abstractions (Relevant to Variable C08021)</b>							

<sup>3</sup> Notice that the time cost of permanent maintenance staff is not included when calculating the direct maintenance costs (C06091)