

WUA Member Water Users Survey Questionnaire

Data will be used for statistical analysis only and will be treated confidentially.

Questionnaire Identification No.:

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Marz:

<i>Name</i>	Code of Marz
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Rural Community:

<i>Name</i>	Code of Community
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Water Users Association:

<i>Name</i>	Code of WUA
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**Location of Community
Relative to the Irrigation
Main Canal:**

1

1. Head
2. Middle
3. Tail

**Availability of Signed
Contract with WUA
(according to WUA
Records):**

1

1. Yes
2. No

Contract number, if "Yes"

Sampling Unit:

1

1. Primary Sampling Unit
2. Additional Sampling Unit

Interviewer:

<i>Name, Surname</i>	Interviewer's ID
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Supervisor:

<i>Name, Surname</i>	/ / <i>Signature</i>
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Date of Interview:

				2	0	0	9
<i>Day (dd)</i>		<i>Month (mm)</i>		<i>Year (yyyy)</i>			

To Interviewer: Please code any question refused to be answered by respondent by "999", any answer like "I do not know" - by "998", and "Difficult to answer" by 997.

SECTION A. KEY CHARACTERISTICS OF HOUSEHOLD

A.1. Number of members of the household:

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To interviewer: Please read the following text - "Please list members of your household both present and absent. By saying a household we mean people who usually live together, share the same housekeeping and have a common budget. At first, please mention the head of the household (irrespective of being absent or present), then his spouse, their children and other members of the household (excluding guests)".

Interviewer: Please register answers to the question A.2, in the row A.2. If the head of the household is absent and/or can not answer the questions for some reason, then the questions to be addressed to and answered by an adult member of the household who makes decisions.

		<i>To interviewer: Please circle the number in the list corresponding to that member of the household who will answer the major part of the questions.</i>														
ID of household member		1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.
Name of the household member (to facilitate further work by the interviewer)																
A.2. Relationship with the head of the household:	1. Head															
	<i>Possible options:</i>	2. Spouse/Husband 3. Son/Daughter		4. Brother/Sister 5. Grandchild			6. Son-in-law/Daughter-in-low 7. Father/Mother/Father-in-low/Mother-in-low				8. Other relative 9. Other person non-relative to household head					
A.3. Gender:	1. Male 2. Female															
A.4. Year of birth (four-digit number):																
A.5. Educational attainment (for persons born in 1999 or earlier):	<i>Possible options:</i>	1. Higher and/or post graduate			4. Primary vocational				7. Basic general							
		2. Incomplete higher			5. Secondary general				8. Primary							
		3. Secondary special			6. Incomplete secondary general				9. None							
A.6. Number of months not lived in the household during the preceding 12 months:																
	<i>If less than 3 months ⇒ A.9.</i>															
A.7. The main reason for absence:	<i>Possible options:</i>	1. Work		3. Family/personal reasons				5. Guest				7. Other				
		2. Education		4. Permanent residence				6. Newborn								
A.8. Where did/does she/he live when absent?	<i>Possible options:</i>	1. Yerevan city			3. Other village in Armenia				5. Other country							
		2. Other city in Armenia			4. Russia or other CIS country				6. Other							
A.9. Does she/he currently live within the household?	<i>Possible options:</i>	1. Yes							2. No							
A.10. Does she/he involved in agricultural works? (for persons born in 1994 or earlier)	<i>Possible options:</i>	1. Yes, fully					2. Yes, partially					3. No ⇒ A.12.				
A.11. What is the typical activity she/he mainly involved in?	<i>Possible options:</i>	1. Fieldwork			4. Cattle-breeding				7. Gardening							
		2. Truck farming			5. Poultry				8. Other							
		3. Operating machinery			6. Marketing				9. All mentioned-above							
A.12. Socio-economic status of household member (for persons born in 2003 or earlier):	<i>Possible options:</i>	1. Salaried worker in agriculture				5. Entrepreneur/employer				9. Housekeeper						
		2. Salaried worker in other sector				6. Pensioner				10. Disabled						
		3. Self-employed in agriculture				7. Student				11. Other						
		4. Self-employed in non-agricultural sector				8. Unemployed										
ID of household member		1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.

SECTION B. IRRIGATION AND WATER USE

	B.1. What is total area of agricultural land owned and/or rented by your household (with the exemption of rented out land), how it was distributed by land category and how it was irrigated during the last agricultural season (i.e. 2009)?	Land area, total (ha)	including:			How many times it was irrigated/watered by irrigation water during 2009?
			Land that is possible to irrigate by water supplied by irrigation network (irrigation water) (ha)	Land area actually watered/irrigated in 2009 (ha)	of which: by irrigation water (ha)	
		1	2	3	4	5
1.	Total					
	<i>of which:</i>					
2.	Arable land					
3.	Orchards					
4.	Vineyards					
5.	Kitchen plot					
6.	Other					

To interviewer: If B1.2.=B1.4 ⇒ B.3.

B.2. If your land (own and/or rented) or part of it has not been irrigated by irrigation water during the last agricultural season (i.e. 2009), then what is the main reason for that?

1. Cannot pay for irrigation
2. Over-normative land
3. Water does not reach my farm due to technical reasons
4. Water does not reach my farm due to organizational/managerial reasons
5. Water is not delivered the way as it was promised by WUA
6. No need for irrigation due to climatic conditions
7. Those lands have not been cultivated
8. Other (please indicate) _____

B.3. What are the sources of irrigation used by you 2009?		Type of land	Did you irrigate by using...?			
			Irrigation water	Drinking water	Tube well/ artesian well water	Natural sources (rivers, lakes, etc)
			1.	2.	3.	4.
<i>To interviewer: If answer is "Yes", then put "1" in the corresponding field.</i>	1.	Arable land				
	2.	Orchards				
	3.	Vineyards				
	4.	Kitchen plot				
	5.	Other				

B.4. Do/did you use the following irrigation practices (methods) during 2009 (the last agricultural season)?

	Irrigation methods	1. Yes, 2. No
1.	Surface irrigation	
2.	Drip irrigation	
3.	Sprinkling/micro-sprinkling	
4.	Other (please indicate) _____	

B.5. In 2009, compared to 2008, how the share/proportion of land actually irrigated by irrigation water has changed?

- | | |
|--------------------------|--------------------------|
| 1. Increased essentially | 4. Decreased slightly |
| 2. Increased slightly | 5. Decreased essentially |
| 3. Remained unchanged | |

To interviewer: Q-B5 to be answered by those households which had agricultural land in 2008.

B.6. How the irrigation water supply is changed during 2009 compared to 2008?

1. Irrigation improved in terms of timeliness only
2. Irrigation improved in terms of quantity only
3. Improved both quantity and timeliness of irrigation
4. Remained unchanged
5. Irrigation deteriorated in terms of timeliness only
6. Irrigation water supply deteriorated in terms of water quantity only
7. Irrigation water supply deteriorated both in terms of timeliness and quantity

To interviewer: Q-B6 to be answered by those households which had agricultural land in 2008.

B.7. Did you pay for irrigation water supplied during current agricultural season?

1. Yes, fully
2. Yes, partially
3. No ⇒ **B.9.**

B.8. How much did you pay? ('000 drams)

B.9. If you paid for irrigation partially or did not pay at all, what was the main reason for that?

1. I did not receive as much water as I needed
2. I did not receive the irrigation water on time
3. I did not receive irrigation water neither in quantity required nor on time
4. I do not know/I do not agree with how the fee is calculated
5. I cannot pay, I do not have enough money for that
6. I do not trust the supplier
7. Other (please specify) _____

B.10. What are the usual way and point of irrigation water charge payments?

1. Money transfer at post office and/or commercial bank
2. Cash payment to the WUA officer directly on-farm/home
3. In-kind payment to the WUA officer directly on-farm/home or at the WUA office
4. Cash payment at the WUA office
5. Other (please specify) _____

B.11. Do you have payment arrears on irrigation water charges accumulated during the previous years?

- | | |
|----------------|---------|
| 1. Yes | ⇒ B.13. |
| 2. No | |
| 3. Do not know | |

B.12. What is the total amount of previously accumulated arrears on irrigation water charges? ('000 drams)

B.13. Can you please estimate the quantity of irrigation water that you used during this agricultural season?

To interviewer: Please code it with 998, if respondent cannot provide with an estimate

B.14. Did you make additional expenses related to irrigation during this season?

- | | |
|--------|---------|
| 1. Yes | ⇒ B.16. |
| 2. No | |

B.15. If yes, then how much? ('000 drams)

B.16. Was your village irrigation system repaired/rehabilitated during 2009 and by whom (if applicable)?

1. By farmers themselves	
2. By village municipal administration	
3. By Water Users Association	
4. By the Central Government	
5. By the MCA-Armenia	
6. Other (please specify)	

Options for answer.

1. Yes, 2. No, 3. I do not know

B.17. How you would evaluate the current condition of the irrigation system in your village?

- | | |
|-----------------|--------------|
| 1. Very good | ⇒ B.19. |
| 2. Good | |
| 3. Satisfactory | 5. Very poor |
| 4. Poor | |

B.18. What are the main problems of the irrigation system in your village?

1. Poor condition of main canals
2. Non-existence/lack of tertiary canals in the village
3. Poor condition of tertiary canal network in the village; water losses
4. Poor condition of tube well pumps
5. Poor condition of artesian wells (obstruction)
6. Poor condition of pumping stations/pumps
7. The absence of precisely designed water delivery schedule in the village
8. Bad operational performance of water supply organization
9. Other (please specify) _____

1st	
2nd	
3rd	

To interviewer: It is allowed to select up to three options from the list. Please record the answers in the 1st, 2nd and 3rd cells ranking them in descending order of significance.

B.19. Did you have any loss in yield due to insufficient/non-reliable irrigation water supply in the last agricultural season (i.e. 2009)?

- | | |
|--------|-------------|
| 1. Yes | ⇒ Section C |
| 2. No | |

B.20. If yes, please estimate the quantity of the lost yield (in kilograms) due to insufficient/non-reliable irrigation water supply in the last agricultural season (i.e. 2009)?

1.	Grains	
2.	Beans	
3.	Potato	
4.	Vegetables	
5.	Melons, water melons	
6.	Grapes	
7.	Fruits and berries	
8.	Fodder crops	
9.	Other (please specify)	

SECTION C. COOPERATION WITH WUA

C.1. Do you know what organization is supplying irrigation water in your village?

- 1. Yes, the WUA
- 2. Yes, village municipal administration
- 3. Yes, state-owned organization
- 4. Yes, private organization
- 5. I do not know

C.2. Are you a member of the Water Users Association?

- | | |
|------------------|--------|
| 1. Yes | |
| 2. I do not know | |
| 3. No | ⇒ C.5. |

C.3. Are you paying WUA membership fees?

- | | |
|------------------|--------|
| 1. Yes | |
| 2. No | ⇒ C.6. |
| 3. I do not know | |

C.4. What is annual amount of WUA membership fees? (drams)

⇒ C.6.

C.5. What is the reason not being a WUA member?

- 1. There is no WUA operating in our village
- 2. Our village is in WUA service area, but I do not know how to become a member
- 3. I did not know about possibility of becoming a WUA member
- 4. I do not want
- 5. Other (please specify) _____

C.6. Did you ever sign water supply contract?

- | | |
|---|---------|
| 1. Yes and currently we have/we had in the past one contract in our household | |
| 2. Yes and currently we have/we had in the past more than one contract in our household | |
| 3. No | ⇒ C.10. |
| 4. I do not know | |

C.7. When did you sign the contract last time (please specify the year)?

To interviewer: Please input four-digit number.

C.8. What is the timing (duration) of the contract? To interviewer: Please input number of years.

C.9. What is the planned amount of the water supply (in cubic meters) for 2009, according to the contract you have signed with WUA?

To interviewer: Q-C9 to be answered by those households only for which sum of answers for Q-C7 and Q-C8 is greater or equal than 2009.

C.10. What do you think how the irrigation water charges are established (defined)?

- | | |
|---|---------|
| 1. Based on volume of irrigation water consumed | |
| 2. Based on size of irrigated area | ⇒ C.12. |
| 3. According to quality/type of irrigated land | ⇒ C.13. |
| 4. According to type of crops cultivated | ⇒ C.13. |
| 5. I do not know | ⇒ C.13. |

C.11. What is the size of irrigation water charge per cubic meter of water supplied?

(Drams) ⇒ C.13.

C.12. What is the size of irrigation water charge (in drams) per hectare of irrigated area in total or by crop?	1. In total	
	2. Grains	
	3. Orchards	
	4. Vineyards	
	5. Vegetables	
	6. Melons, water melons	
	7. Other crops	

To interviewer: If the respondent answers selecting the option "In total", then please complete only the corresponding cell. If the option "in total" is not applicable, then input 997 in corresponding cell and try to get answers by crop.

C.13. What do you think, did you receive irrigation water when you needed during the last season (i.e. 2009)?	1. Yes 2. No	<input type="checkbox"/>
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C.14. What do you think, did you receive as much irrigation water as you needed during the last season (i.e. 2009)?	1. Yes 2. No	<input type="checkbox"/>
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C.15. Have you ever had any dispute with the WUA?	1. Yes 2. No	⇒ C.18.	<input type="checkbox"/>
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C.16. If yes, what was the reason?	1. The irrigation water charges to be paid were more than the amount corresponding to actually supplied irrigation water 2. I have not received irrigation water on time 3. I have not received irrigation water in the required quantity 4. I had previously accumulated arrears on irrigation water supplied 5. Other (please specify)	<input type="checkbox"/>
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C.17. How the dispute has been resolved?	1. In the court 2. In the WUA dispute resolution commission 3. Has not been solved 4. Other	<input type="checkbox"/>
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C.18. Does any member of your household participate in the WUA management at any level?	1. Yes, as a sub-service area representative 2. Yes, as a member of the WUA Administrative Council 3. Yes, represented in other management structures of the WUA 4. No 5. I do not know	<input type="checkbox"/>
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C.19. Please evaluate the operation of the WUA in your area (village) in the listed aspects:	1. Adequacy and fairness of irrigation water distribution	<input type="checkbox"/>
	2. Irrigation system O&M/repairs	<input type="checkbox"/>
	3. Collection of irrigation water charges	<input type="checkbox"/>
	4. Defense of WUA members' interests	<input type="checkbox"/>
	Options for answerers:	
1. Very good	3. Satisfactory	5. Very poor
2. Good	4. Poor	6. Difficult to answer

To interviewer: The next questions in this sections to be asked to WUA members only; i. e. to those respondents for whom answer to Q-C2 = "1". Otherwise, ⇒ Section D.

C.20. Have you ever participated to any meeting organized by the WUA?	1. Yes 2. No	⇒ C.22.	<input type="checkbox"/>
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C.21. If yes, when it happen last time? (please input four-digit number indicating the year)	<input type="text"/>
	⇒ C.23.

C.22. What is the reason for not participating?	1. I have not been informed about the meeting 2. There no such meeting (s) organized) 3. I had no willingness to participate 4. I have not been able to participate 5. Other (please specify)	<input type="checkbox"/>
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C.23. Does your village has a representative in the WUA?

1. Yes	⇒ Section D	<input type="checkbox"/>
2. No		
3. I do not know		

C.24. Have you participated in the election of the representative?

1. Yes	⇒ C.26.	<input type="checkbox"/>
2. No		

C.25. What is the reason for not participation in the elections?

1. I have not been informed about the election of a representative	<input type="checkbox"/>
2. There were no such elections	
3. I had no willingness to participate	
4. I have not been able to participate	
5. Other (please specify)	

C.26. Do you contact your representative to inform him/her about the issues related to irrigation services you have, to communicate this to the WUA management?

1. Yes, very often	⇒ Section D	<input type="checkbox"/>
2. Yes, rare		
3. No, there was no need		
4. No, I do not know how to do it		

C.27. To what extent are you satisfied with the work performed by your representative?

1. Completely	3. Not satisfied at all	<input type="checkbox"/>
2. Partially	4. Difficult to answer	

SECTION D. AGRICULTURAL PRODUCTION

D.1. What type of crops did you cultivate and what was the yield during 2009 (including winter crops from 2008)?

	Crops	Land area (ha)		Yield (kg)		Of which:		
		Total	of which: actually irrigated	Total	of which: from actually irrigated land	Consumed (or to be consumed) for own needs or for the farming purposes	Sold (or assumed to be sold) or bartered (or assumed to be bartered)	
							Quantity (kg)	000' drams
		1	2	3	4	5	6	7
1.	Grains							
	<i>of which:</i>							
2.	Wheat							
3.	Barley							
4.	Other							
5.	Beans							
6.	Potato							
7.	Vegetables							
	<i>of which:</i>							
8.	Tomato							
9.	Cucumber							
10.	Egg-plant							
11.	Cabbage							
12.	Onion							
13.	Other vegetables							
14.	Water melons and melons							
15.	Grapes							
16.	Fruits							
	<i>of which:</i>							
17.	Apple							
18.	Peach							
19.	Apricot							
20.	Cherry							
21.	Other fruits							
22.	Berries							
23.	Fodder crops							
24.	Greens (tufts)							
25.	Tobacco							
26.	Flowers (Ñ³r)							

D.2. Are there essential changes in the structure of your production in 2009 compared to the structure of crop production in 2008?

1. Yes	<input type="checkbox"/>
2. No ⇒ D.4.	

D.3. What are the major changes by type of crop?		<u>What are the changes happened?</u> 1. Land area increased 2. Land area decreased 3. Was not produced in 2008, but has been produced in 2009 4. Was produced in 2008, has not been produced in 2009 5. Has not been produced both in 2008 and 2009 ⇒ D.4. 6. No changes ⇒ D.4.	<u>What is (are) the major cause(s) for change (selection of three options is possible)?</u>			
			1. Improved irrigation	6. Government subsidies		
			2. Lack of irrigation	7. High profitability		
		3. Marketing difficulties	8. Low profitability			
		4. Easy marketing	9. Other			
		5. Climate conditions				
		The first	The second	The third		
		1	2	3	4	
1.	Grains					
2.	Beans					
3.	Potato					
4.	Vegetables					
5.	Melons, water melons					
6.	Grapes					
7.	Fruits/berries					
8.	Fodder crops					
9.	Tobacco					
10.	Flowers					

D.4. Has your household currently involved in cattle breeding?

1. Yes

2. No ⇒ Section E

D.5. How many animals do you currently have?

		Available livestock (heads)
1	Cattle	
	of which:	X
2	Cows	
3	Pigs	
4	Sheep and goats	
5	Poultry	
6	Other	
7	Families of bees	

SECTION E. LAND OWNERSHIP AND LAND USE

E.1. What is the distribution of agricultural land currently available to your household (including own land, rented land and other land in use) by type of ownership and in terms of actual use during the last agricultural season (i.e. 2009, including winter cropping for 2008)?

	Agricultural land	Total (ha)	Of which:				Other land in use (ha)
			Own land		Rented land		
			Total (ha)	of which: actually cultivated in 2009 (ha)	Total (ha)	of which: actually cultivated in 2009 (ha)	
		1	2	3	4	5	6
1.	Total, of which:						
2.	Rented out			X	X	X	X
3.	Arable land						
4.	Orchards						
5.	Vineyards						
6.	Kitchen plot						
7.	Other						

E.2. What is (are) the main reason (s) for not cultivating the available agricultural land?

To interviewer: This question is asked only to those households for which in the row corresponding to totals in table E1 one of the following conditions are satisfied:

- a) Value in cell (column) 3 is not equal to value in cell (column) 2; or
 b) Value in cell (column) 5 is not equal to value in cell (column) 4.

1. Land is located too far
2. Poor quality of land
3. Issues related to irrigation
4. It is not profitable to cultivate
5. Too expensive to cultivate
6. Health/age conditions
7. Lack of labor
8. Left it for rest
9. Other (specify) _____

1st	
2nd	
3rd	

E.3. What is the number of land plots used by your household during this agricultural season?

To interviewer: Please input number of land plots in corresponding cells.

1. Total, of which:	
2. Own land	
3. Rented land	
4. Other land in use	

E.4. What was the land area available to your household in 2008 by type of land?

To interviewer: If there was no land available to household in 2009 please enter "0" in cells corresponding to "Total" and end the interview.

	Total agricultural and area available in 2008, ha	of which: actually cultivated ha
	1	2
1. Total, of which:		
2. Rented out		X
3. Arable land		
4. Orchards		
5. Vineyards		
6. Kitchen plots		
7. Other		