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EU4Environment
Water and Data in Eastern Partner Countries

EU4Environment in Eastern Partner Countries:
Water Resources and Environmental Data (ENI/2021/425-550)

REVIEW OF TECHNICAL PERFORMANCE OF WATER USERS ASSOCIATIONS AND IDENTIFICATION OF OPPORTUNITIES FOR REFORMING IRRIGATION SERVICE FEES AND SUBSIDIES

FINAL REPORT

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LIST OF ACRONYMS

AMD	Armenian Dram
CJSC	Closed Joint Stock Company
EAP	Eastern Partnership
EU	European Union
GDP	Gross Domestic Product
GIS	Geographic Information System
GoA	Government of Armenia
ISF	Irrigation Service Fees
MTAI	Ministry of Territorial Administration and Infrastructures
MTEF	Medium-Term Public Expenditure Framework
O&M	Operation and Maintenance
OECD	Organisation for Economic Co-operation and Development
RoA	Republic of Armenia
UNECE	United Nations Economic Commission for Europe)
WCC	Water-Consuming Cooperatives
WUA	Water User Association

BACKGROUND

The “EU4Environment – Water Resources and Environment Data” Programme, financed by the European Union (EU) with an overall budget of 12.75 mln Euro and implemented in Armenia, Azerbaijan, Georgia, Moldova and Ukraine, aims at preserving the partner countries’ natural capital and contributing towards their environmental and climate resilience. The specific focus is on: (i) knowledge-based decision-making, further development of environmental statistics and monitoring and extending access to high-quality data as part of open government; and (ii) better management of water resources and further alignment with EU water law, in particular the Water Framework Directive.

The implementation period of the Programme is 2021-2024, and the implementing partners are: Environment Agency Austria, Austrian Development Agency, International Office for Water (France), Organisation for Economic Co-operation and Development (OECD), and United Nations Economic Commission for Europe (UNECE).

The expected outputs of the Programme, led by OECD, relate to further improvement of economic soundness of water strategies and policies in Eastern Partnership (EAP) countries through enhancing economic instruments for water management, identifying subsidies that impact efficient use of water, and analysis and providing recommendations on water pricing; and support to the mobilisation of financing for strategic priorities.

Particularly, Output 1.5 aims of the Programme to improve the economic soundness of water strategies and policies in Armenia, and includes the following activities:

- Development of a roadmap for improving policy coherence between actors operating across all aspects of water management and assessing the opportunities and barriers to development of economically and financially sustainable strategies and policies. Recognising the synergies and interlinkages between the expected features of the roadmap, the activities will be screened in terms of priority and sequence.
- Development of a roadmap to consider opportunities for reform of the water abstraction fees, including application in hydropower sector, maximizing impact of polluter pays principle, review of irrigation service fees and subsidies, including the move towards performance based allocations, water metering, smart technologies practices and new markets including organic agriculture.
- Performance review of water user associations (WUAs) to understand differences in technical and economic performance.
- Consideration of opportunities for earmarking sector revenues and the potential for a revolving fund.

Thus, the objective of this study is to conduct a detailed performance review of the WUAs in Armenia, to understand the differences in technical and economic performance, as well as identify opportunities for reforming irrigation service fees (ISF) and subsidies, including the move towards performance based allocations. The overall goal of the study is to prepare recommendations to policy makers to improve the economic and technical performance of WUAs and reforming the irrigation service fees and subsidies, including development of corresponding accompanying measures, that could be implemented to make reforms happen.

Achievement of this overall goal requirements implementation of the following tasks: (1) Review of technical and economic performance of WUAs; (2) Identify options to reform ISF to achieve cost-recovery level; (3) Perform affordability assessment and identify accompanying measures; (4) Identify options to reform the current system of irrigation subsidies; and (5) Prepare a package of policy recommendations to decision-makers.

1. IRRIGATED AGRICULTURE IN ARMENIA

Agriculture is a strategic sector in the country both in terms of ensuring food security and from the view point of its social sensitivity and economic importance.

Over recent decades, though the agriculture sector has added more value in absolute terms to the economy, its overall share of gross domestic product (GDP) has steadily decreased (around 12% in 2022). Yet, Armenia is still an agrarian society with the agriculture sector providing around 30% of total employment. Moreover, with important links to the growing food processing industry, agriculture will continue to play an important role in the Armenian economy.

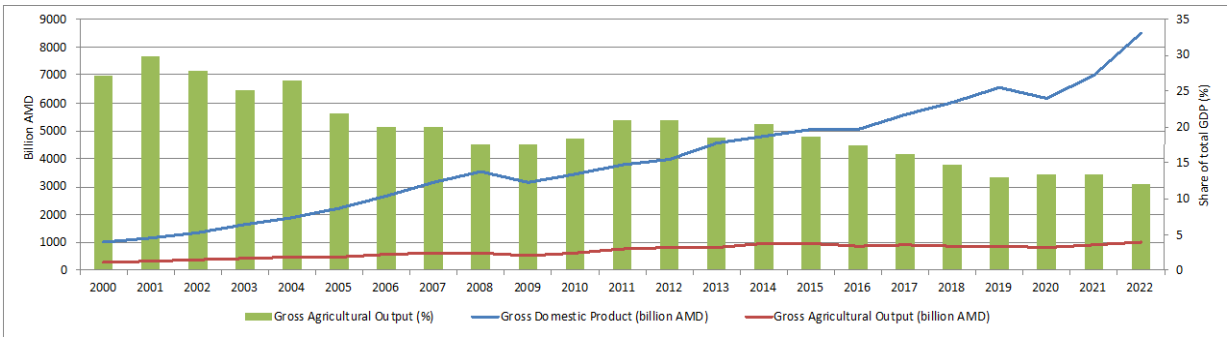

Figure 1: Agriculture Value Added

The gross agricultural production in 2022 amounted to 1021.4 billion Armenian Dram (AMD) or 12% of GDP, of which 50.7 % (AMD 518.8 billion) was generated from farming and 49.3% (AMD 502.6 billion) from livestock products.

Effective agriculture in the Republic of Armenia is not possible without irrigation. Currently, irrigated agriculture accounts for more than 70% of the gross crop production. Efficient cultivation of agricultural crops on about 80% of arable lands is possible only with irrigation. Irrigation of agricultural lands in Armenia still remains one of the most important tasks in the field of economic development.

Since in Armenia the agriculture is highly dependent on irrigation, many important issues of the sector are linked to water. In this respect, the assistance provided by various international donors to the country was aimed mainly at the establishment of supporting environment for quick commencement of efficient sector development, rehabilitation of crucial infrastructures and assisting all the beneficiaries to become active participants of the management and at the development of production potential of those infrastructures.

The existing irrigation system in Armenia was built and formed during the times of the former Soviet Union, 60-70 years ago. Initially, construction of irrigation systems was based on the following factors:

- cheap electricity available - 600-800 million kWh of electricity was consumed annually using widespread pumping-based irrigation systems;
- extremely low water cost and sufficient water resources;
- huge capital investment funds available;
- no need to ensure self-sufficiency;
- expansion of irrigable lands; and
- large (100 ha and more) agricultural plots that were cultivated centrally through collective farms and state farms.

Since 1992 the Government of Armenia (GOA) has started implementation of institutional improvements and projects aimed at the establishment and development of modern infrastructure and creation of conditions for sustainable and efficient agriculture regulated by market forces. In early 2000s, many capital investment projects have been implemented, which were aimed at converting pumping irrigation systems to gravity, at decommissioning hundreds of out-of-operation pumping stations, reducing electricity costs and water losses, repairing deteriorated main and secondary canals, repairing and rehabilitating on-farm and farm irrigation systems, providing irrigation water in required locations, ensuring dam safety, etc. Nevertheless, development and effective operation of irrigation system remains largely dependent on the continuity of implementing large-scale capital investment projects.

Although the GOA has implemented prompt measures for privatization and liberalization of most agricultural sectors, irrigation still remains a priority issue among the challenges and problems facing agriculture.

In particular, three issues still are in the focus of the state's attention:

- First, the high cost of water delivery due to deteriorated state of irrigation systems resulting in high water losses and its dependence upon electricity consumption, hence costly pump irrigation resulted in unavoidable state financial assistance and questioned the profitability of irrigated agriculture.
- Second, the lack of cost-recovery policy and the absence of effective arrangements for provision of timely and adequate financing for operation and maintenance (O&M) costs caused continued deterioration of the infrastructure.
- Third, the lack of adequate allocation of responsibilities and arrangements of participatory management policy refrained water users from sufficient participation in irrigation management and resulted in the practice of wastage of funds and low collection rates at the agencies operating in the sector.

Currently, the three key organizations in irrigation water management in Armenia are the Water Committee of the Ministry of Territorial Administration and Infrastructures (MTAI), "Jrar" (Irrigation Water Intake) closed joint stock company (CJSC) under the MTAI, and WUAs.

The Water Committee is responsible for the management and operational use of state-owned water systems, including irrigation and drainage.

"Jrar" CJSC, which is in charge of bulk irrigation water supply up to the boundaries of WUAs, has central office in Yerevan and 14 operational divisions, of which 6 are large irrigations systems (primary canals and pump stations) and 8 large reservoirs. The overall length of the primary canals network is over 300 km. During the releases water from Lake Sevan for irrigation purposes, "Jrar" CJSC participates in the operational of Sevan-Hrazdan derivation system in order to ensure efficient irrigation water supply, including through operation of the primary canals originating from the Sevan-Hrazdan system (Talin, Arzni-Shamiram, Lower Hrazdan, Kotayk, Artashat, Yerevan City Council syphon).

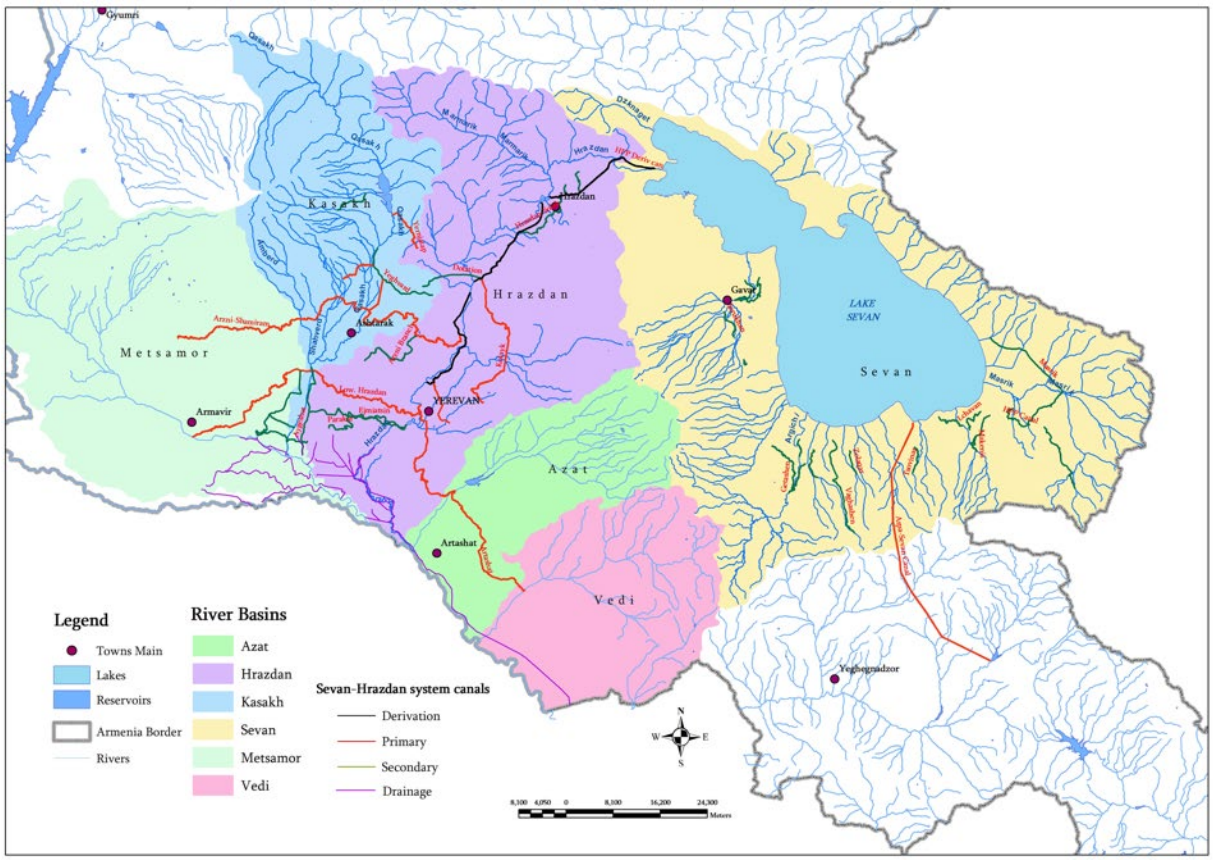

Figure 2: Sevan-Hrazdan Irrigation System Scheme

"Jrar" CJSC implements works on collection, transfer and supply of water formed in the river basins of Akhuryan, Araks, Hrazdan, Kasakh, Marmarik and Azat, through operation of Akhuryan, Arpilich, Mantash, Tavshut, Kaps, Aparan, Azat, Marmarik and other reservoirs. The company is supplying bulk irrigation water to 10 WUAs in Shirak, Aragatsotn, Armavir, Kotayk, Ararat, Armavir and Syunik provinces of Armenia and Yerevan city, which supply water to over 90 thousand ha of agricultural lands.

2. REVIEW OF TECHNICAL AND ECONOMIC PERFORMANCE OF WUAS

2.1. History of Establishment of WUAs

The history of the establishment of WUAs began in 1991-1993, when agricultural lands, livestock and other means of production were privatized, as well as enterprises and organizations in the field of agricultural production and sale.

In the next phase, in the period between 1998-2001, the main emphasis was placed on the implementation of the first steps of participatory management of irrigation systems, the purpose of which was to create water-consuming cooperatives (WCC).

About 150 WCCs were established, but most of them were not financially sustainable, mainly due to small service area. WCCs were established within the framework of the current law "On Cooperatives", but for the proper implementation of the process of transferring irrigation systems to WCCs for operation, a new legislation on the regulation of legal relations of organizations founded by water users was required.

In particular, in the period after 2002, one of the fundamental results of the structural and legislative reforms implemented in the field of irrigation was the introduction of participatory management of irrigation systems by water users, the formation and establishment processes of the institute of Water Users' Associations (WUAs).

As a result, within the framework of legislative reforms in the field, the Republic of Armenia Law "On Water User Associations and Federations of Water User Associations" (hereinafter referred to as “Law on WUAs” was developed and adopted (10.09.2002), according to which a new organizational and legal status was created - WUA, which according to Article 3 of the mentioned law, is an organization created by water users.

By introducing participatory management in the field of irrigation, the main part of the management functions of irrigation systems was transferred directly to water users in order to increase their ability to act independently and the degree of responsibility.

At the same time, according to the relevant conclusion of the Regulatory Council on the activities of WUAs and federations of WUAs, in accordance with the Law on WUAs, in the regions of Armenia, during 2003, 18 WUAs were established by water users on 47,355 ha and in 2004, by liquidating closed joint-stock companies operating irrigation systems, another 36 WUAs were established on 86,035 ha (133,390 ha in total).

Later, until 2014, WUAs were reorganized from 54 WUAs to 37 WUAs in several stages, and each reorganization process was based on the results of feasibility studies and analyses of the Associations’ activities, comparative data of water management quality and collections’ level, geographical positions of service areas, principles of indivisibility of hydraulic units and other indicators of the Associations' activity, as well as the resolutions of WUAs’ management bodies and WUAs’ activity regulating board (hereinafter referred to as the Regulatory Board).

At the same time, it should be noted that the measures aimed at strengthening the capacities of WUAs included follow-up activities aimed at WUAs:

1) management bodies;
2) financial management;
3) water accountability and management;
4) teaching and training in technical and accounting matters;
5) operation and maintenance planning, development of business plans and preparation of the budgets;
6) legal issues and legislative changes;
7) participatory methods;
8) equipping with machinery, equipment, computer equipment and furniture.

Two computer programs adapted for WUAs accounting and water management were developed and provided to WUAs. The water management program is equipped with a computer program based on Geographic Information System (GIS), which is designed to calculate the hectares of the service area of WUAs, the composition of crops, the volumes of water delivered to the field, and the ISF and membership fees as a water user, etc.

Later, in 2017, without implementing thorough studies, analyses and evaluations, without complying with the principle of indivisibility of hydraulic units, WUAs were reorganized through merger, as a result of which there are 15 WUAs currently operating in the country. Particularly,

- “Artashat”, “Azat” and “Vedi” WUAs were merged into the unified “Artashat” WUAs, and the principle of merger was the fact, that these WUAs were obtaiing irrigation water from Artashat primary canal;
- “Armavir”, “Araks” and “Merdzapnya” WUAs were merged into the unified “Armavir” WUA, and the principle of merger was the fact, that these WUAs were obtaining irrigation water from Armavir primar canal;
- “Yerevan” and “Masis” WUAs were merged into the unified “Yerevan” WUA;
- “Vagharshapat” and “Khoy” WUAs were merged into the unified “Ejmiatsin” WUA, and the principle of merger was the fact, that these WUAs were obtaining irrigation water from Lower Hrazdan primary canal;
- “Jrvezh-Dzoraghbyur”, “Garni-Geghard”, “Naira” and “Yeghvard” WUAs were merged into the unified “Kotayk” WUA;
- “Parpi”, “Shamiram”, “Ashtarak”, “Kasakh” and “Aparan-Aragats” WUAs were merged into the unified “Aragatsotn” WUAs;
- “Gavar”, “Martuni” and “Vardenis” WUAs were merged into the unified “Gegharkunik” WUA;
- “Noyemberyan”, “Utik” and “Ijevan” WUAs were merged into the unified “Tavush” WUA;
- “Lori canal” and “Getik” WUAs were merged into the unified “Lori” WUA;
- “Sisian”, “Goris”, “Kapan” and “Meghri” WUAs were merged into the unified “Syunik” WUA;
- During the above-mentioned period the “Ararat”, “Shenik”, “Talin”, “Shirak” and “Yeghegnadzor” WUAs were not re-organized.

As a result of the reorganization, consolidation of WUAs has had a negative impact on ensuring compliance with defined procedures of participatory management, on organizing functioning of management bodies, water planning, supply, management and accounting, as well as on collection of charges for supplied irrigation water, and on several other issues.

Currently, about 209 thousand ha of cadastral irrigation lands are located within the service area of WUAs. In 2022 over 90 thousand ha were actually irrigated by WUAs.

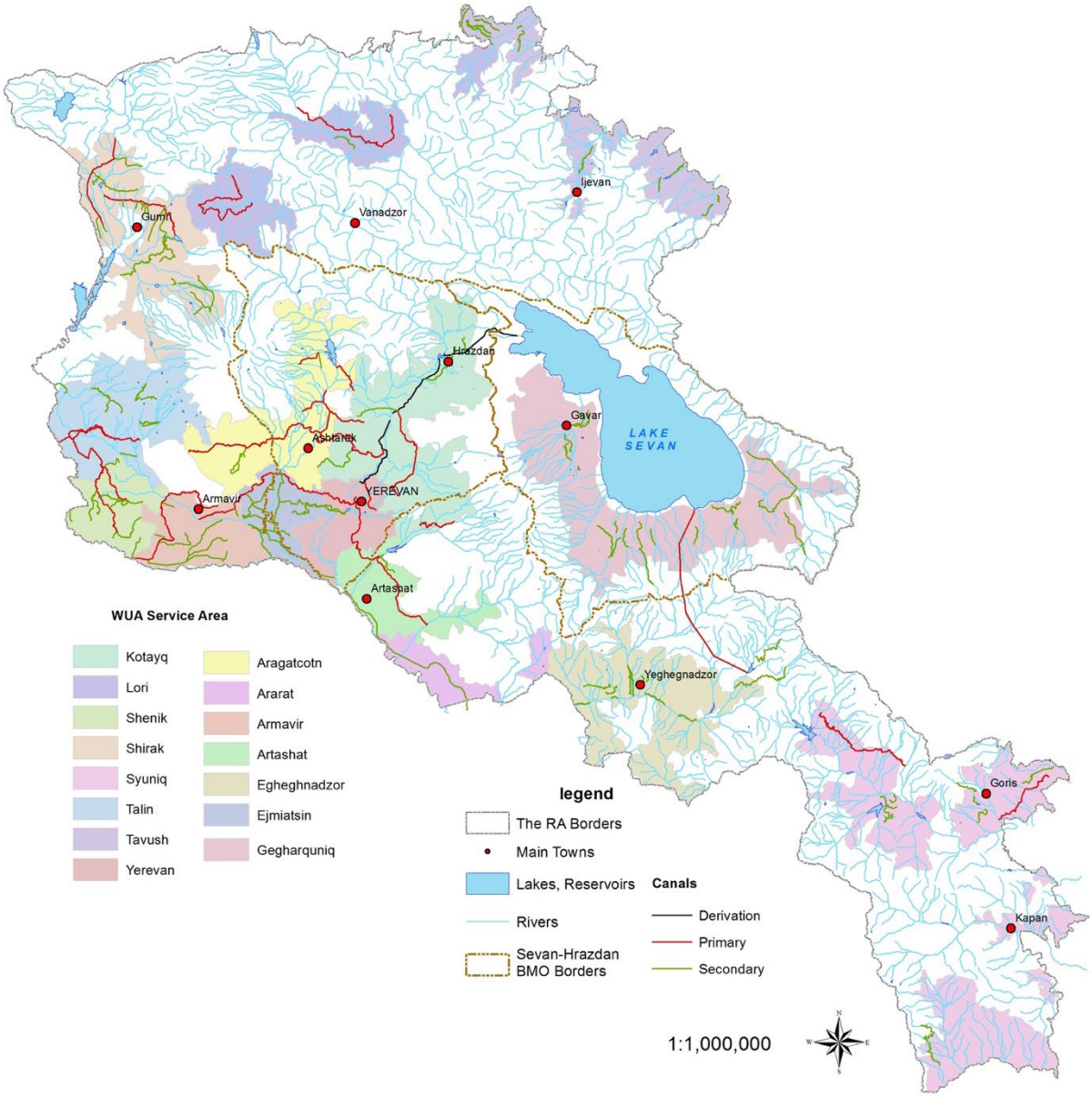

Figure 3: WUA Service Area

In order to have an idea on the technical indicators of the irrigation systems, below the summary information on the primary canals as provided:

- The total length of Talin primary canal composes 88.7 km (including the 1st, 2nd and 3rd lots), which serves “Talin” and “Shenik” WUAs;
- The total length of Armavir primary canal composes 48 km, which serves “Armavir” WUA;
- The total length of Lower Hrazdan (1st and 2nd lots together) canal composes 53 km, which serves “Yerevan” and “Ejmiatsin” WUAs;
- The total length of Artashat primary canal compose 56.8 km, which serves “Yerevan” and “Artashat” WUAs;
- The total length of Arzni-Shamiram primary canals (1st and 2nd lots together) composes 92 km, which serves “Aragatsotn and “Kotayk” WUAs.

2.2. Review of Technical and Economic Performance of WUAs

WUAs play an important role in agricultural water management. The operation of secondary and tertiary systems and small pumping stations and reservoirs has been transferred to WUAs.

According to Government of Armenia Resolution No 422-N of April 22, 2015, the functions of the Regulatory Council of the executive authority of WUAs are assigned to the Water Committee. WUAs have the following management bodies: Representatives Council and Administrative Council. Executive Directors lead the everyday works of WUAs.

The main logic of formation of WUAs is to be in line with the principle of indivisibility of hydraulic units. WUAs in Armenia currently operate secondary canals with a total length of about 1 700 km and tertiary canals or on-farm irrigation networks with a total length of about 16 000 km, as well as 55 small and medium-size reservoirs, pump stations and about 650 deep wells, of which 90 artesian wells. WUAs are in charge of providing irrigation water supply services to over 600 settlements.

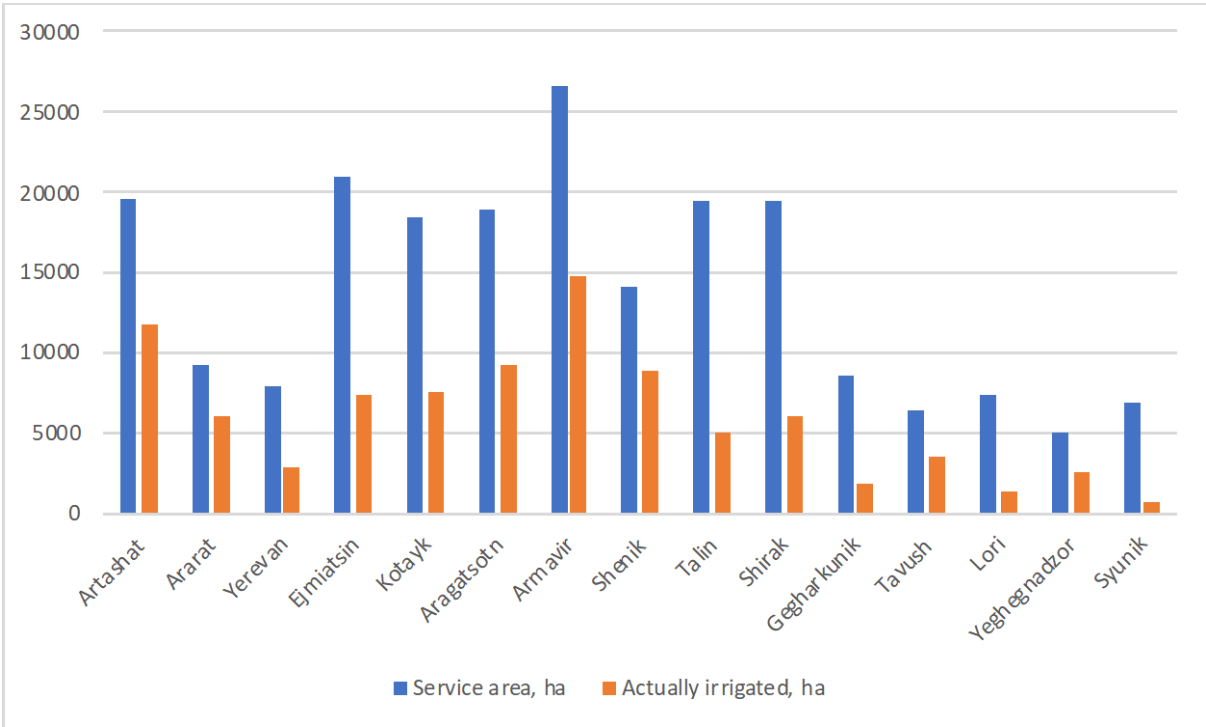

Figure 4: Service area of WUAs

The ISF for one cubic meter of irrigation water supplied to water users from 2018 to 2022 was 11.0 AMD, the amount of which is decided every year by the general meeting of the WUA, practically approving the annual budget of the WUA, which contains information about the amount of the ISF. In reality, this is Government imposed ceiling, while the real cost of irrigation water supply to farmers is higher.

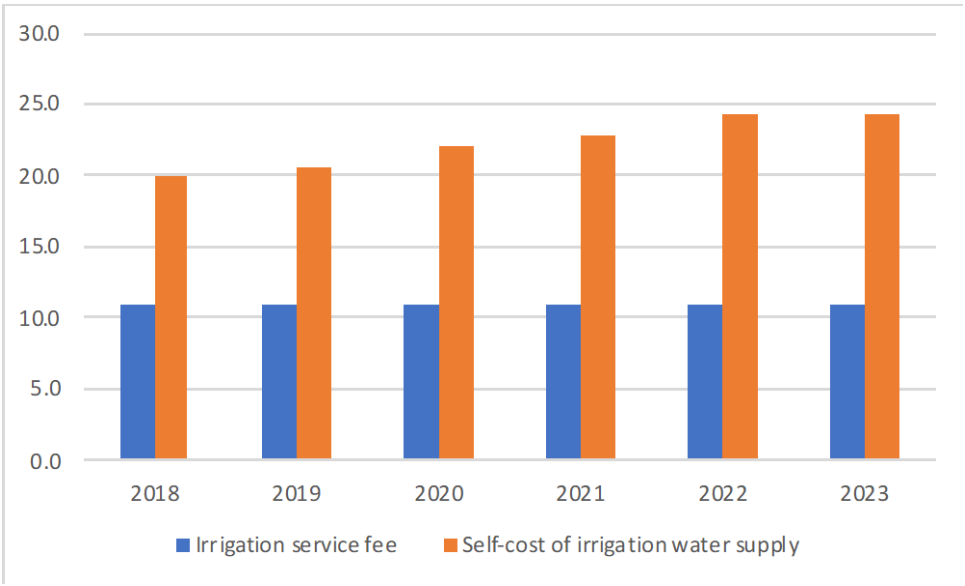

Figure 5: Dynamics of ISF and average self-cost of irrigation water supply by WUAs

It should be noted that the self-cost of irrigation water supply is not evenly distributed among the WUA, and there are significant differences. For example, in 2022 the self-cost of irrigation water supply in Aragatsotn WUA composed 11.75 AMD/m^3, while in Syunik WUA the self-cost was 95.97 AMD/m^3. This is largely due to electricity costs, and the variation of self-cost of irrigation water supply among different WUAs significantly reduced, when the electricity cost is deducted: from 8.54 AMD/m^3 in Shenik WUA up to 56.02 AMD/m^3 in Syunik WUA.

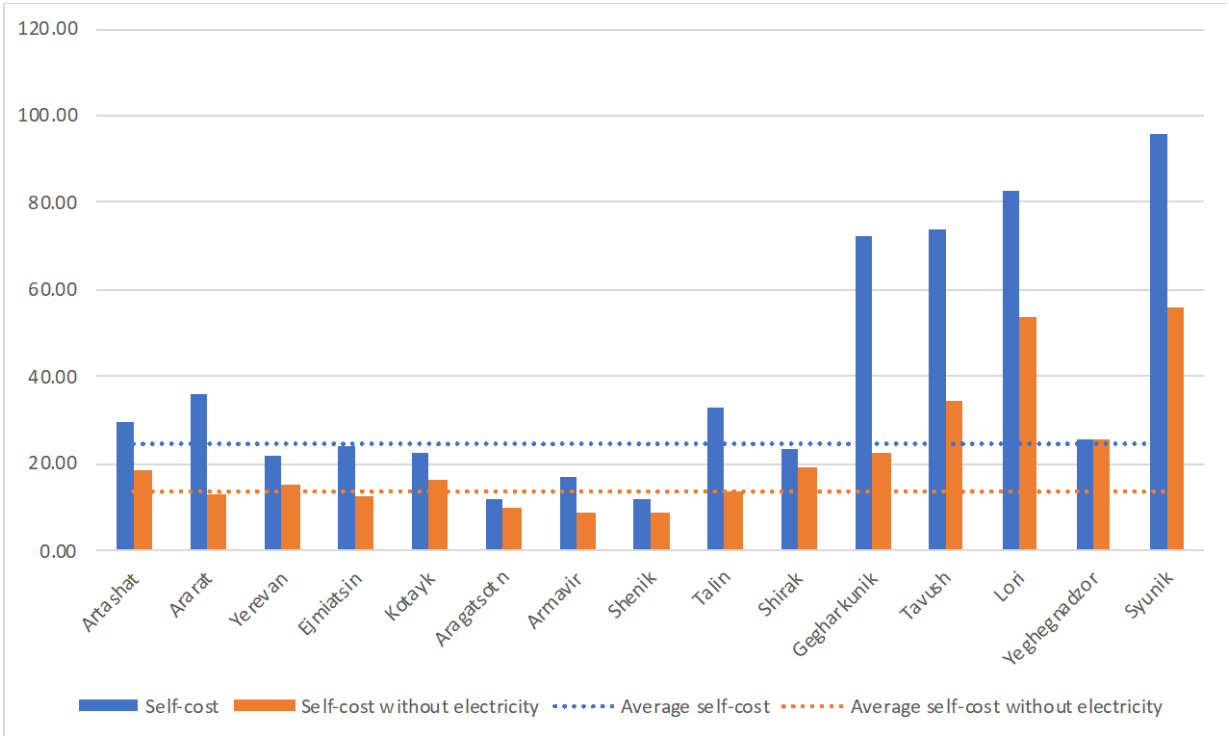

Figure 6: Self-cost of irrigation water supply according to different WUAs in 2022

The indicators presented in Table 1 show that from 2018 to 2022, the current revenue generated by irrigation water supplied to water users by WUAs increased by 6.9% on average, and the current revenue per hectare decreased by 2.4%.

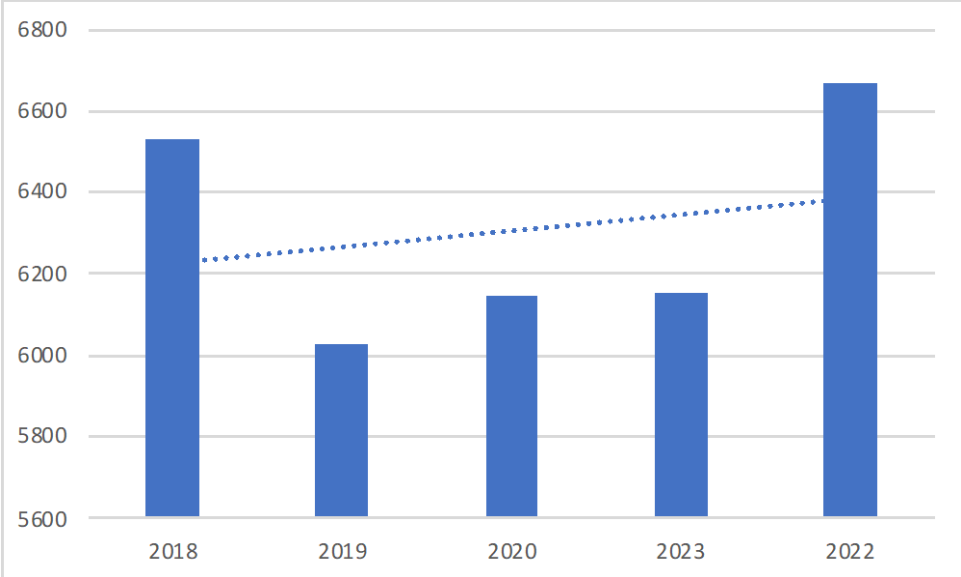

Figure 7: Current revenues from irrigation water supply, mln AMD

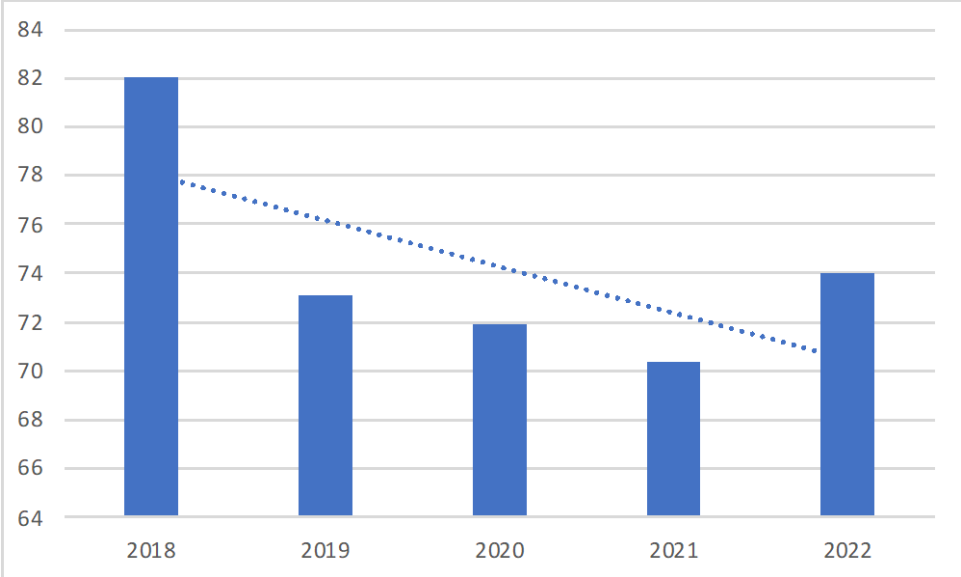

Figure 8: Current revenue per ha, AMD

From 2018 to 2022, the average indicator of collection from the current revenue of irrigation water supplied to water users increased by 6.7% (Table 1).

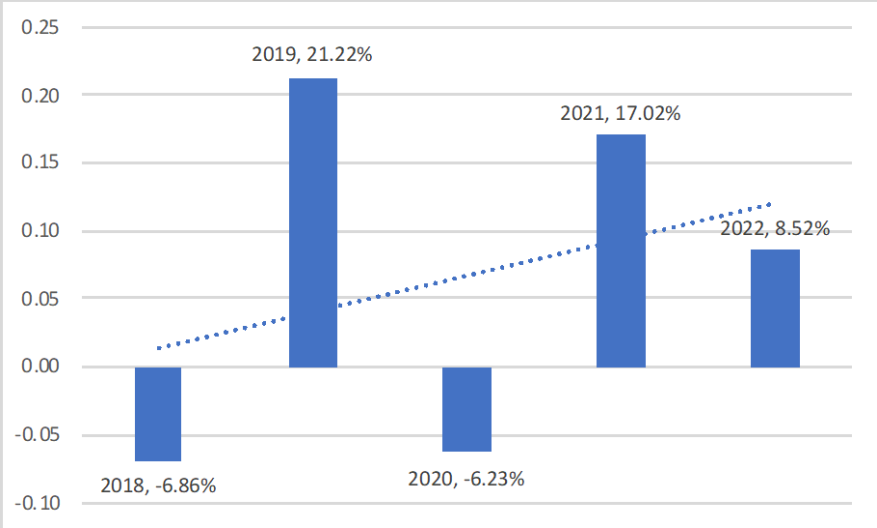

Figure 9: Dynamics of revenue from irrigation water supply to farmers

The analyses of technical and economic indicators of water user associations are presented in Tables 1 and 2 of this report.

Table 1: Analysis of the summary indicators of the irrigation system of the Republic of Armenia for the period of 2018-2023

Indicators	Measurement unit	2018	2019	2020	2021	2022	2018-2022 average	2023 [forecast]
Cadastral areas irrigated by WUAs	ha	198,283	198,283	198,283	209,434	209,434	202,743	209,434
Actual areas irrigated by WUAs	ha	79,643	82,471	85,401	87,413	90,203	85,026	93,100
Actual areas irrigated by WUAs (increase or decrease)	%	-21.4%	3.6%	3.6%	2.4%	3.2%	-1.7%	3.2%
WUAs operating costs	million AMD	11,869.5	11,307.2	11,136.9	12,806.5	14,744.5	12,372.9	15,182.8
Operating costs of WUAs per hectare	AMD	149,033.9	137,105.7	130,407.6	146,505.7	163,458.5	145,302.3	163,080.6
Operating costs of WUAs per hectare (increase or decrease)	%	44.2%	-8.0%	-4.9%	12.3%	11.6%	11.0%	-0.2%
[Capital] costs of WUAs maintenance	million AMD	0.0	0.0	0.0	0.0	0.0	0.0	0.0
[Capital] maintenance costs of WUAs per hectare	AMD	0.0	0.0	0.0	0.0	0.0	0.0	0.0
[Capital] maintenance costs of WUAs per hectare (increase or decrease)	%		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Electricity consumed by WUAs	million kw/h	119.4	119.9	115.9	134.5	137.7	125.5	142.1
Electricity consumed by WUAs (increase or decrease)	%		0.4%	-3.3%	16.0%	2.4%	3.9%	3.2%
Amount of electricity consumed by WUAs	million AMD	4,689.8	4,676.0	4,677.0	5,734.0	6,575.3	5,270.4	6,786.5
Amount of electricity consumed by WUAs (increase or decrease)	%		-0.3%	0.0%	22.6%	14.7%	9.3%	3.2%
Electricity consumed by “Jrar”	million kw/h	49.3	31.9	26.5	35.7	33.8	35.4	38.5
Electricity consumed by “Jrar” (increase or decrease)	%		-35.2%	-17.0%	34.8%	-5.3%	-5.7%	13.9%
Amount of electricity consumed by “Jrar”	million AMD	1,857.5	1,192.8	993.2	1,450.0	1,563.3	1,411.4	1,776.4
Amount of electricity consumed by “Jrar” (increase or decrease)	%		-35.8%	-16.7%	46.0%	7.8%	0.3%	13.6%
Irrigation water supplied by “Jrar” to WUAs	million.	923.4	781.0	844.1	799.2	858.9	841.3	925.1
Irrigation water supplied by “Jrar” to WUAs (increase or decrease)	%		-15.4%	8.1%	-5.3%	7.5%	-1.3%	7.7%
Tariff for irrigation water supplied by “Jrar” to WUAs (averaged)	AMD/m^2	2.11	1.95	1.79	2.06	1.88	2.0	1.90
Self-cost of irrigation water supplied by “Jrar” to WUAs (averaged)	AMD/m^2	8.05	5.97	3.46	3.52	3.53	4.9	3.53
Current income generated by irrigation water supplied by “Jrar” to WUAs	million AMD	1,949.0	1,519.3	1,511.5	1,648.3	1,618.1	1,649.2	1,757.7
Irrigation water supplied by WUAs to water users	million.	594.0	547.7	558.2	559.2	606.4	573.1	625.8
Irrigation water supplied by WUAs to water users (increase or decrease)	%		-7.8%	1.9%	0.2%	8.4%	0.7%	3.2%
ISF for irrigation water supplied by WUAs to water users	AMD/m^2	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Self-cost of irrigation water supplied by WUAs to water users	AMD/m^2	20.0	20.6	20.0	22.9	24.3	21.6	24.3
Current income generated by irrigation water supplied to water users by WUAs	million AMD	6,531.4	6,027.1	6,145.0	6,152.8	6,669.9	6,305.2	6,883.8
Current income (increase or decrease) formed by irrigation water supplied to water users by WUAs	%	31.8%	-7.7%	2.0%	0.1%	8.4%	6.9%	3.2%
Current revenue per hectare of water users (averaged)	AMD	82,007.9	73,081.4	71,954.3	70,387.4	73,943.1	74,274.8	73,939.8
Current revenue per hectare of water users (increase or decrease)	%		-10.9%	-1.5%	-2.2%	5.1%	-2.4%	0.0%

Indicators	Measurement unit	2018	2019	2020	2021	2022	2018-2022 average	2023 [forecast]
Amount collected from current revenue for irrigation water supplied to water users	million AMD	3,173.9	3,847.4	3,607.8	4,221.7	4,581.2	3,886.4	4,728.3
Amount collected from previous years' receivables for irrigation water supplied to water users	million AMD	109.3	200.3	132.6	65.2	79.6	117.4	82.2
Collecting (increase or decrease) current revenue from irrigation water supplied to water users	%	-6.9%	21.2%	-6.2%	17.0%	8.5%	6.7%	3.2%
Amount collected per hectare	AMD	39,851.7	46,652.1	42,245.0	48,295.8	50,787.5	45,566.4	50,787.3
The ratio of the amount collected by WUAs from the current revenue	%	48.6%	63.8%	58.7%	68.6%	68.7%	61.7%	68.7%
State subsidy to WUAs	million AMD	5,022.0	14,685.5	7,451.8	8,351.5	9,356.7	8,973.5	4,379.8
State subsidy to WUAs (increase or decrease compared to the previous year)	%	-3.6%	192.4%	-49.3%	12.1%	12.0%	32.7%	-53.2%
State subsidy amount per hectare	AMD	77,846.8	192,840.5	100,012.2	108,002.6	115,805.8	118,901.6	60,848.0
State subsidy to “Jrar”	million AMD	1,177.94	1,218	1,089	1,089	1,089	1,132.8	1,285
State subsidy to “Jrar” (increase or decrease)	%	4.1%	3.4%	-10.6%	0.0%	0.0%	-0.6%	18.0%
Debt of WUAs as of the last day of the reporting year	million AMD	9,438.9	1,977.7	1,876.3	1,995.5	2,482.6	3,554.2	3,019.6
Debt of WUAs (increase or decrease compared to the previous year)	%		-79.0%	-5.1%	6.3%	24.4%	-13.4%	21.6%
Receivables of WUAs as of the last day of the reporting year	million AMD	20,104.4	22,330.3	23,619.3	24,558.4	26,828.3	23,488.1	29,004.8
Receivables of WUAs (increase or decrease compared to the previous year)	%		11.1%	5.8%	4.0%	9.2%	7.5%	8.1%
Debt of “Jrar” as of the last day of the reporting year	million AMD	276.7	188.0	244.1	15.3	3.3	145.5	3.3
Debt of “Jrar” (increase or decrease compared to the previous year)	%		-32.1%	29.8%	-93.7%	-78.4%	850.8%	0.0%
Receivables of “Jrar” as of the last day of the reporting year	million AMD	2,095.7	1,146.7	1,175.3	1,339.7	1,058.8	1,363.2	1,092.8
Receivables of “Jrar” (increase or decrease compared to the previous year)	%		-45.3%	2.5%	14.0%	-21.0%	-12.4%	3.2%

Source: Analysis based on the data, provided by the Water Committee, Ministry of Territorial Administration and Infrastructures (MTAI), 2023

Table 2: Summary of planning and actual 2021-2022 of WUAs, planning indicators for 2023

N:	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2022 and 2022 average of actual indicators	2023 forecast
			Planned	Actual	Difference (actual -plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]				Planned
1	Cadastral irrigable lands of the WUAs service area	ha	209,434.1	209,434.1	0.0	0.0%	209,434.1	209,434.1	0.0	0.0%	0.0	0.0%	209,434.1	209,434.1
2	Declared irrigable lands in the WUAs service area	ha	90,081.0	87,412.7	-2,668.3	-3.0%	91,572.1	90,203.0	-1,369.1	-1.5%	2,790.3	3.2%	88,807.9	93,100.0
3	Volume of irrigation water received, including:	1000 m^3	1,079,618.4	1,034,424.0	45,194.4	15.5%	1,144,920.5	1,130,926.4	13,994.1	-20.0%	96,502.4	9.3%	1,082,675.2	1,167,200.0
3.1	Obtaining purchased water, including:	1000 m^3	835,856.0	762,515.2	73,340.8	7.0%	886,405.3	851,231.3	35,174.0	-14.8%	88,716.1	11.6%	806,873.3	878,600.0
3.1.1	a) by gravity	1000 m^3	768,091.0	682,482.8	85,608.2	-11.1%	804,552.0	778,893.2	25,658.8	-3.2%	96,410.4	14.1%	730,688.0	803,900.0
3.1.2	b) mechanically	1000 m^3	67,765.0	80,032.4	-12,267.4	18.1%	81,853.3	72,338.1	9,515.2	-11.6%	-7,694.3	-9.6%	76,185.3	74,700.0
3.2	Water from local sources, including:	1000 m^3	243,762.4	271,908.8	-28,146.4	8.5%	258,515.2	279,695.1	-21,179.9	-5.1%	7,786.3	2.9%	275,802.0	288,600.0
3.2.1	a) by gravity	1000 m^3	42,032.7	39,139.3	2,893.4	-6.9%	50,453.5	40,250.7	10,202.8	-20.2%	1,111.4	2.8%	39,695.0	41,500.0
3.2.2	b) mechanically	1000 m^3	201,729.7	232,769.5	-31,039.8	15.4%	208,061.7	239,444.4	-31,382.7	15.1%	6,674.9	2.9%	236,107.0	247,100.0
4	Consumed electricity	1000 kWh	122,589.5	134,477.2	11,887.7	9.7%	132,951.0	137,690.2	4,739.2	3.6%	3,213.0	2.4%	136,083.7	142,100.0
5	Water supply by WUAs	1000 m^3	583,963.8	559,168.7	-24,795.1	-4.2%	635,430.3	606,371.0	-29,059.3	-4.6%	47,202.3	8.4%	582,769.9	625,800.0
6	ISF for irrigation water supplied by WUAs	AMD/m^3	11.00	11.00	0.00	0.0%	11.00	11.00	0.00	0.0%	0.0	0.0%	11.0	11.00
7	Self-cost of irrigation water supplied by WUAs (sum of all current costs)	AMD/m^3	20.08	22.90	2.82	14.1%	20.50	24.32	3.81	18.6%	1.4	6.2%	23.6	24.26
8	Self-cost of irrigation water supplied by WUAs (excluding electricity costs)	AMD/m^3	11.79	12.65	0.86	7.3%	12.40	13.47	1.08	8.7%	0.8	6.5%	13.1	13.42
9	Self-cost of irrigation water supplied by WUAs (excluding cost of purchased water)	AMD/m^3	17.73	19.97	2.24	12.6%	17.77	21.65	3.88	21.8%	1.7	8.4%	20.8	21.59

N:	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2022 and 2022 average of actual indicators	2023 forecast
			Planned	Actual	Difference (actual -plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]				Planned
10	Revenue of irrigation water supply to the water users by WUAs	1000 AMD	6,638,8	6,152,754.3	-486,129.5	-7.3%	6,937,700.8	6,669,886.9	-267,813.9	-3.9%	517,132.6	8.4%	6,411,320.6	6,883,800.0
11	Membership fee for water users	1000 AMD	109,224.5	98,891.2	-10,333.3	-9.5%	111,575.1	100,013.5	-11,561.6	-10.4%	1,122.3	1.1%	99,452.4	103,200.0
12	Collection of payments related to supplied irrigation water during the reporting period	1000 AMD	5,365,239.0	4,221,662.5	-1,143,576.5	-21.3%	6,243,189.3	4,581,190.2	-1,661,999.1	-26.6%	359,527.7	8.5%	4,401,426.4	4,728,300.0
13	Collection of membership fees during the reporting period	1000 AMD	98,677.8	65,232.4	-33,445.4	-33.9%	135,242.5	79,646.7	-55,595.8	-41.1%	14,414.3	22.1%	72,439.6	82,200.0
14	Calculation or accounting of current costs, including:	1000 AMD	11,725,837.2	12,806,458.9	1,080,621.7	9.2%	13,028,029.2	14,744,452.7	1,716,423.5	13.2%	1,937,993.8	15.1%	13,775,455.8	15,182,800.0
14.1	Spring preparations and current expenditures on fixed assets	1000 AMD	1,198,124.3	1,295,311.2	97,186.9	8.1%	1,631,612.8	1,654,556.3	22,943.5	1.4%	359,245.1	27.7%	1,474,933.7	1,707,700.0
14.2	Salary and other equivalent payments (subject to payment)	1000 AMD	2,566,905.7	2,558,743.9	-8,161.8	-0.3%	2,515,012.0	2,885,683.6	370,671.6	14.7%	326,939.7	12.8%	2,722,213.8	2,978,400.0
14.3	Income tax on salary and other equivalent payments	1000 AMD	758,131.8	826,172.4	68,040.6	9.0%	807,903.0	881,209.4	73,306.4	9.1%	55,037.1	6.7%	853,690.9	866,200.0
14.4	Mandatory social security payments	1000 AMD	52,559.5	49,181.2	-3,378.3	-6.4%	39,378.7	71,047.5	31,668.8	80.4%	21,866.4	44.5%	60,114.3	81,500.0
14.5	Transportation costs and fuel	1000 AMD	305,613.6	351,760.1	46,146.5	15.1%	422,663.8	411,838.2	-10,825.6	-2.6%	60,078.2	17.1%	381,799.1	425,100.0
14.6	Banking, postal, telecommunication costs	1000 AMD	64,488.5	56,172.3	-8,316.2	-12.9%	64,296.0	56,520.0	-7,776.0	-12.1%	347.6	0.6%	56,346.1	58,300.0
14.7	Expenses related to bank and other loans	1000 AMD	0.0	0.0	0.0	0.0%	23,442.0	0.0	-23,442.0	-100.0%	0.0	0.0%	0.0	0.0
14.8	Borrowings from other sources	1000 AMD	0.0	0.0	0.0	0.0%	3,220.0	0.0	-3,220.0	-100.0%	0.0	0.0%	0.0	0.0
14.9	Economic, representative and other expenses	1000 AMD	102,610.8	47,790.4	-54,820.4	-53.4%	97,930.0	66,263.7	-31,666.3	-32.3%	18,473.4	38.7%	57,027.1	68,400.0
14.10	Expenses related to the rental of immovable or movable property, including taxes	1000 AMD	25,184.7	0.0	-25,184.7	-100.0%	58,412.0	0.0	-58,412.0	-100.0%	0.0	0.0%	0.0	0.0

N:	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2022 and 2022 average of actual indicators	2023 forecast
			Planned	Actual	Difference (actual -plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]				Planned
14.11	Electricity costs	1000 AMD	4,842,539.3	5,733,998.3	891,459.0	18.4%	5,150,960.0	6,575,311.2	1,424,351.2	27.7%	841,312.9	14.7%	6,154,654.8	6,786,500.0
14.12	Water intake costs	1000 AMD	1,371,960.0	1,641,480.4	269,520.4	19.6%	1,735,299.0	1,618,131.4	-117,167.6	-6.8%	-23,349.0	-1.4%	1,629,805.9	1,670,100.0
14.13	Reserve fund - co-financing of investment projects and fixed assets	1000 AMD	431,577.0	43,174.5	-388,402.5	-90.0%	418,700.0	49,904.4	-368,795.6	-88.1%	6,729.9	15.6%	46,539.4	51,500.0
14.14	Value added tax	1000 AMD	1,192.0	3,875.7	2,683.7	225.1%	2,935.0	2,321.0	-614.0	-20.9%	-1,554.7	-40.	3,098.4	2,400.0
14.15	Profit tax	1000 AMD	0.0	58,265.4	58,265.4		46,652.9	205,722.0	159,069.1	341.0%	147,456.6	253.1%	131,993.7	212,300.0
14.16	Tax penalties and fines	1000 AMD	1,200.0	17,006.8	15,806.8	1317.2	7,012.0	80,242.3	73,230.3	1044.4%	63,235.4	371.8%	48,624.5	82,800.0
14.17	Penalties related to electricity payments	1000 AMD	0.0	42,303.5	42,303.5		2,150.0	104,297.6	102,147.6	4751.1%	61,994.2	146.5%	73,300.6	107,600.0
14.18	Other expenses	1000 AMD	3,750.0	81,222.9	77,472.9	2065.9	450.0	81,404.0	80,954.0	17989.8%	181.1	0.2%	81,313.4	84,000.0
15	Calculation or accounting of capital expenditure, including:	1000 AMD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15.1	Capital expenditure on irrigation systems	1000 AMD	0.0	0.0	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0	0.0
15.2	Capital costs of vehicle maintenance	1000 AMD	0.0	0.0	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0	0.0
15.3	Costs of acquisition of fixed assets	1000 AMD	0.0	0.0	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0	0.0
15.4	Other capital expenditures	1000 AMD	0.0	0.0	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0	0.0
16	Total payments for expenses and payables	1000 AMD	12,013,867.6	12,608,907.4	595,039.8	5.0%	18,537,728.7	14,190,034.9	-4,347,693.8	-23.5%	1,581,127.5	12.5%	13,399,471.2	14,645,800.0
17	State financial support received	1000 AMD	6,370,101.9	8,351,466.5	1,981,364.6	31.1%	12,025,480.7	9,361,729.1	-2,663,751.6	-22.2%	1,010,262.6	12.1%	8,856,597.8	4,379,800.0
18	Debts of WUAs as of the last day of the reporting year	1000 AMD	1,517,953.2	1,995,453.9	477,500.7	31.5%	4,217,564.9	2,482,606.0	-1,734,958.9	-41.1%	487,152.1	24.4%	2,239,029.9	3,019,606.0
19	Receivables of WUAs as of the last day of the reporting year	1000 AMD	23,996,725.9	24,558,421.1	561,695.2	2.3%	25,252,932.6	26,828,296.0	1,575,363.4	6.2%	2,269,874.9	9.2%	25,693,358.6	29,004,796.0
20	Financial gap of WUAs	1000 AMD	-1,697,802.1	-1,965,999.9	-268,197.8	15.8%	-4,351,381.1	-2,650,074.9	1,701,306.2	-39.1%	-684,075.1	34.8%	-2,308,037.4	-8,475,106.0

Source: Analysis based on the data, provided by the Water Committee, MTAI, 2023

2.4. Comparative Analysis of WUA Indicators

Based on the information received from the Water Committee of the Ministry of Territorial Administration and Infrastructures of the Republic of Armenia, as well as operative bulletins of WUAs, the study team has performed comparative analysis of several key indicators for 2022 of the 15 WUAs.

Particularly, the following parameters were observed as comparative indicators:

- The ratio of the actually irrigated ares of WUAs and the cadastral areas;
- The ratio of the water supply volume by WUAs and the volume of abstracted water;
- The ratio of the collection of irrigation service fee for supplied water and the revenue .

Thus, according to the ratio of actually irrigated areas and cadastral areas of WUAs, the best performance is observed correspondingly by “Ararat”, “Shenik” and “Artashat” WUAs, and the worst performance is observed correspondingly by “Syunik”, “Lori” and “Gegharkunik” WUAs.

Table 3: The ratio of actually irrigated area and cadastral area according to WUAs, 2022

	WUA	Actually irrigated area / cadastral area
1	Ararat	0.65
2	Shenik	0.63
3	Artashat	0.59
4	Tavush	0.56
5	Armavir	0.56
6	Yeghegnadozr	0.50
7	Aragatsotn	0.49
8	Kotayk	0.41
9	Yerevan	0.38
10	Ejmiatsin	0.35
11	Shirak	0.31
12	Talin	0.26
13	Gegharkunik	0.23
14	Lori	0.19
15	Syunik	0.12

In terms of the ratio of the volume of water supply and water abstraction (bith from “Jrar” CJSC and from own source of WUAs), the best performance have correspondingly “Ararat”, “Syunik” and “Tavush” WUAs and the worst performance have “Shirak”, “Talin” and “Aragatsotn” WUAs.

Table 4: The ratio of volume of water supply and water abstraction according to WUAs, 2022

	WUA	Water supply/ abstraction
1	Ararat	0.72
2	Syunik	0.69
3	Tavush	0.66
4	Lori	0.65
5	Yeghegnadzor	0.63

6	Yerevan	0.63
7	Kotayk	0.59
8	Gegharkunik	0.59
9	Armavir	0.56
10	Ejmiatsin	0.55
11	Artashat	0.54
12	Shenik	0.53
13	Aragatsotn	0.52
14	Talin	0.34
15	Shirak	0.32

Finally, according to the ratio of collection of irrigation service fee for the water supplied and the revenue "Yerevan", "Talin" and "Gegharkunik" have the best performance indicators, while "Ejmiatsin", "Yeghegnadzor" and "Syunik" WUAs correspondingly have the worst performance.

Table 5: The ratio of collection of ISF for the water supplied and revenue according to WUAs, 2022

	WUA	Collection/Revenue
1	Yerevan	1.06
2	Talin	1.00
3	Gegharkunik	0.96
4	Ararat	0.95
5	Lori	0.95
6	Armavir	0.92
7	Aragatsotn	0.91
8	Shirak	0.88
9	Artashat	0.88
10	Tavush	0.71
11	Kotayk	0.66
12	Shenik	0.65
13	Syunik	0.64
14	Yeghegnadzor	0.58
15	Ejmiatsin	0.43

In terms of the combination of the above-metnioned three parameters for 2022, the best performance is observed by "Ararat", "Yerevan" and "Armavir" WUAs, while the worst performance is observed by "Ejmiatsin", "Syunik" and "Shirak" WUAs.

Table 6: Perforamance of WUAs according to the combination of the selected parameters, 2022

		Actually irrigated area / cadastral area	Water supply/ abstraction	Collection/ revenue	Total
1	Ararat	0.65	0.72	0.95	**2.33**
2	Yerevan	0.38	0.63	1.06	**2.06**
3	Armavir	0.56	0.56	0.92	**2.03**
4	Artashat	0.59	0.54	0.88	**2.01**
5	Tavush	0.56	0.66	0.71	**1.94**
6	Aragatsotn	0.49	0.52	0.91	**1.92**
7	Shenik	0.63	0.53	0.65	**1.81**
8	Lori	0.19	0.65	0.95	**1.79**

		Actually irrigated area / cadastral area	Water supply/ abstraction	Collection/ revenue	Total
9	Gegharkunik	0.23	0.59	0.96	**1.78**
10	Yeghegnadzor	0.50	0.63	0.58	**1.72**
11	Kotayk	0.41	0.59	0.66	**1.66**
12	Talin	0.26	0.34	1.00	**1.60**
13	Shirak	0.31	0.32	0.88	**1.52**
14	Syunik	0.12	0.69	0.64	**1.44**
15	Ejmiatsin	0.35	0.55	0.43	**1.33**

3. OPTIONS TO REFORM IRRIGATION SERVICE FEES TO ACHIEVE COST-RECOVERY LEVEL

The approach for reforming the irrigation service fee should be based on balancing the two main principles of cost-recovery and affordability:

- Cost recovery principle: costs for irrigation water supply, at least in terms of operational and maintenance costs, should be covered by the irrigation service fee;
- Affordability principle: irrigation service fee should be affordable for the water users.

One of the most important strategic measures for reforming ISF is reducing the self-cost of irrigation water supply, as ensuring the financial stability of WUAs is one of the main targets of their subsequent development process. Reducing the self-cost of irrigation water is one of the primary steps to achieve the specified result.

In the self-cost of irrigation water of WUAs, as the average indicators of 2021 and 2022, the main cost is electricity cost - 44.00% of costs, salaries and other equivalent payments - 19.77% of costs, spring preparations and current expenditures on fixed assets -10.66% of costs, expenses related to procurement of water-12.56% of costs, remaining expenses about 13.01% (Table 7).

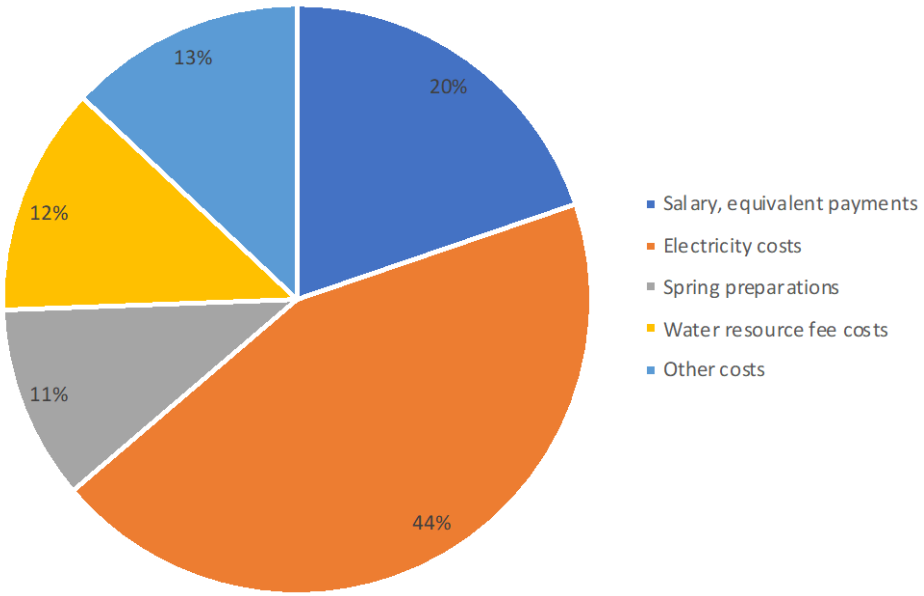

Figure 10: Distribution of average self-cost of irrigation water supply by WUAs in 2021-2022, according to cost categories

Table 7: Irrigation water self-cost indexes calculated based on 2021-2022 actual indicators of WUAs and forecasted based on 2023 plan indicators

No	Indicator name	Measurement unit	2021				2022				2021 and 2022 average share of current expenses [%]	2022 and 2022 average of actual figures	2023 [forecast]	
			Planned		Actual		Planned		Actual				Planned	
			Sum	Share in current expenses [%]	Sum	Share in current expenses [%]	Sum	Share in current expenses [%]	Sum	Share in current expenses [%]			Sum	Share in current expenses [%]
1	Calculation or accounting of current costs, including:	1000 AMD	11,725,837.2	100.00%	12,806,458.9	100.00%	13,028,029.2	100.00%	14,744,452.7	100.00%	100.00%	13,775,455.8	15,182,800.0	100.00%
1.1	Spring preparations and current expenditures on fixed assets	1000 AMD	1,198,124.3	10.22%	1,295,311.2	10.11%	1,631,612.8	12.52%	1,654,556.3	11.22%	10.67%	1,474,933.7	1,707,700.0	11.25%
1.2	Salary and other equivalent payments (subject to payment)	1000 AMD	2,566,905.7	21.89%	2,558,743.9	19.98%	2,515,012.0	19.30%	2,885,683.6	19.57%	19.78%	2,722,213.8	2,978,400.0	19.62%
1.3	Income tax on salary and other equivalent payments	1000 AMD	758,131.8	6.47%	826,172.4	6.45%	807,903.0	6.20%	881,209.4	5.98%	6.21%	853,690.9	866,200.0	5.71%
1.4	Mandatory social security payments	1000 AMD	52,559.5	0.45%	49,181.2	0.38%	39,378.7	0.30%	71,047.5	0.48%	0.43%	60,114.3	81,500.0	0.54%
1.5	Transportation costs and fuel	1000 AMD	305,613.6	2.61%	351,760.1	2.75%	422,663.8	3.24%	411,838.2	2.79%	2.77%	381,799.1	425,100.0	2.80%
1.6	Banking, postal, telecommunication costs	1000 AMD	64,488.5	0.55%	56,172.3	0.44%	64,296.0	0.49%	56,520.0	0.38%	0.41%	56,346.1	58,300.0	0.38%
1.7	Expenses related to bank and other loans	1000 AMD	0.0	0.00%	0.0	0.00%	23,442.0	0.18%	0.0	0.00%	0.00%	0.0	0.0	0.00%
1.8	Borrowings from other sources	1000 AMD	0.0	0.00%	0.0	0.00%	3,220.0	0.02%	0.0	0.00%	0.00%	0.0	0.0	0.00%

No	Indicator name	Measurement unit	2021				2022				2021 and 2022 average share of current expenses [%]	2022 and 2022 average of actual figures	2023 [forecast]	
			Planned		Actual		Planned		Actual				Planned	
			Sum	Share in current expenses [%]	Sum	Share in current expenses [%]	Sum	Share in current expenses [%]	Sum	Share in current expenses [%]			Sum	Share in current expenses [%]
1.9	Economic, representative and other expenses	1000 AMD	102,610.8	0.88%	47,790.4	0.37%	97,930.0	0.75%	66,263.7	0.45%	0.41%	57,027.1	68,400.0	0.45%
1.10	Expenses related to the rental of immovable or movable property, including taxes	1000 AMD	25,184.7	0.21%	0.0	0.00%	58,412.0	0.45%	0.0	0.00%	0.00%	0.0	0.0	0.00%
1.11	Electricity costs	1000 AMD	4,842,539.3	41.30%	5,733,998.3	44.77%	5,150,960.0	39.54%	6,575,311.2	44.60%	44.68%	6,154,654.8	6,786,500.0	44.70%
1.12	Water intake costs	1000 AMD	1,371,960.0	11.70%	1,641,480.4	12.82%	1,735,299.0	13.32%	1,618,131.4	10.97%	11.90%	1,629,805.9	1,670,100.0	11.00%
1.13	Reserve fund - co-financing of investment projects and fixed assets	1000 AMD	431,577.0	3.68%	43,174.5	0.34%	418,700.0	3.21%	49,904.4	0.34%	0.34%	46,539.4	51,500.0	0.34%
1.14	Value added tax	1000 AMD	1,192.0	0.01%	3,875.7	0.03%	2,935.0	0.02%	2,321.0	0.02%	0.02%	3,098.4	2,400.0	0.02%
1.15	Profit tax	1000 AMD	0.0	0.00%	58,265.4	0.45%	46,652.9	0.36%	205,722.0	1.40%	0.93%	131,993.7	212,300.0	1.40%
1.16	Tax penalties and fines	1000 AMD	1,200.0	0.01%	17,006.8	0.13%	7,012.0	0.05%	80,242.3	0.54%	0.34%	48,624.5	82,800.0	0.55%
1.17	Penalties related to electricity payments	1000 AMD	0.0	0.00%	42,303.5	0.33%	2,150.0	0.02%	104,297.6	0.71%	0.52%	73,300.6	107,600.0	0.71%
1.18	Other expenses	1000 AMD	3,750.0	0.03%	81,222.9	0.63%	450.0	0.00%	81,404.0	0.55%	0.59%	81,313.4	84,000.0	0.55%

Source: Analysis based on the data, provided by the Water Committee, MTAI, 2023

The self-cost of irrigation water supplied to water users by WUAs, calculated with the sum of all current costs, in 2021 was 22.91 AMD per cubic meter, and in 2022 - 24.33 AMD per cubic meter, or exceeded the previous year's indicator by 6.2% (Table 2).

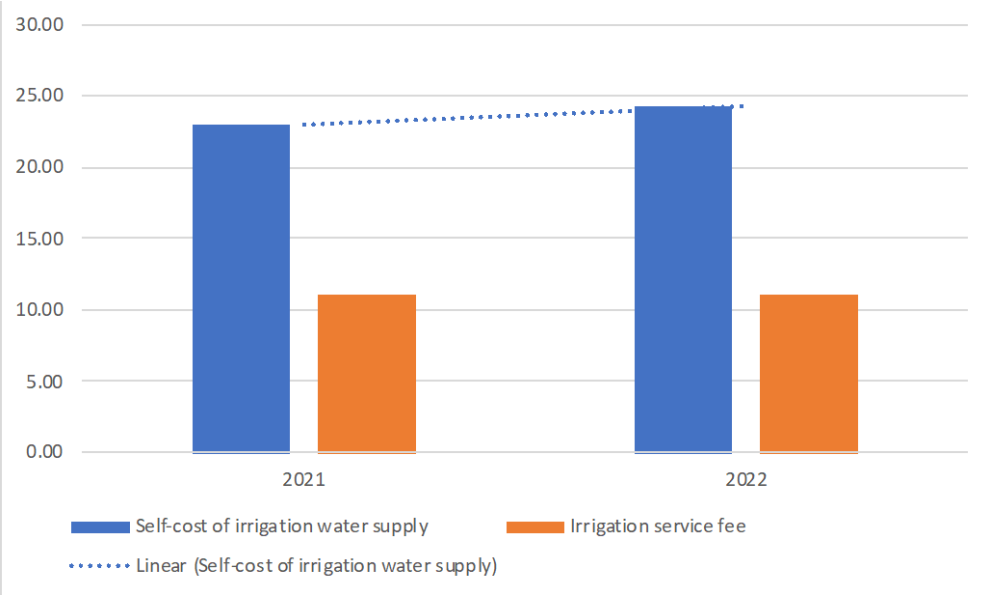

Figure 11: Self-cost of irrigation water supply in 2021 and 2022

The same indicator (self-cost), without the cost of electricity, was 12.80 AMD per cubic meter in 2021, and 13.65 AMD per cubic meter in 2022, or exceeded the previous year's indicator by 6.6% (Table 2). The same indicator (self-cost), without the cost of purchased water, was AMD 19.82 per cubic meter in 2021, and AMD 21.49 per cubic meter in 2022, or exceeded the previous year's indicator by 8.4%.

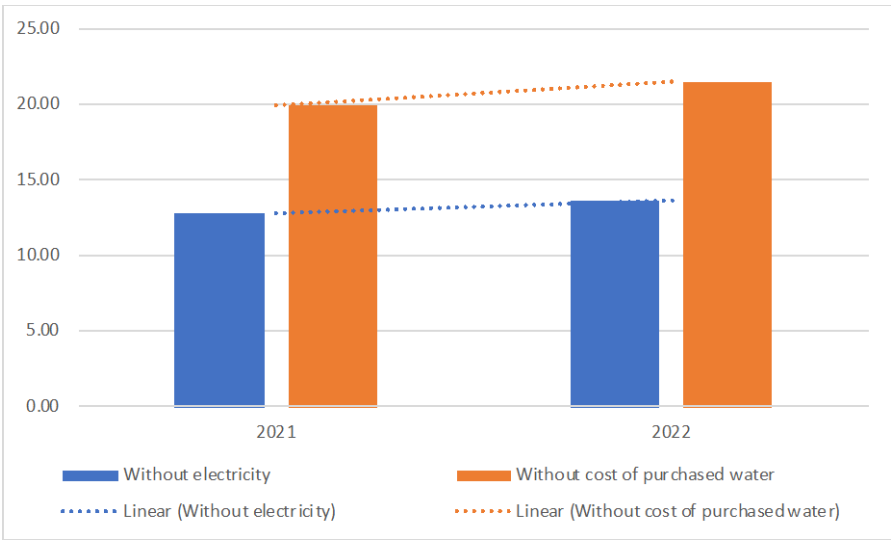

Figure 12: Self-cost of irrigation water supply in 2021 and 2022, excluding electricity costs

It should be noted the ISF 11.0 AMD/m^3 remain the same from 2010 to 2022, despite the fact that in the same period the electricity price increased from 25 AMD/kWh up to 48.53 AMD/kWh, and the average annual inflation was 4%. Thus, ISF has not been adjusted to inflation, increase of electricity price and increased O&M costs.

Reducing the self-cost of irrigation water will reduce or minimize the existing financial gap in the budgets of WUAs, while easing the burden of the state, which subsidizes existing financial gaps resulting from the operation of WUAs.

In the annual budgets of WUAs, the largest expense line is the cost of electricity spent on mechanical water supply, so the most significant of the possible self-cost reduction measures is to replace mechanical irrigation with gravity systems, which will provide an opportunity to save electricity, which in turn will reduce the self-cost of water.

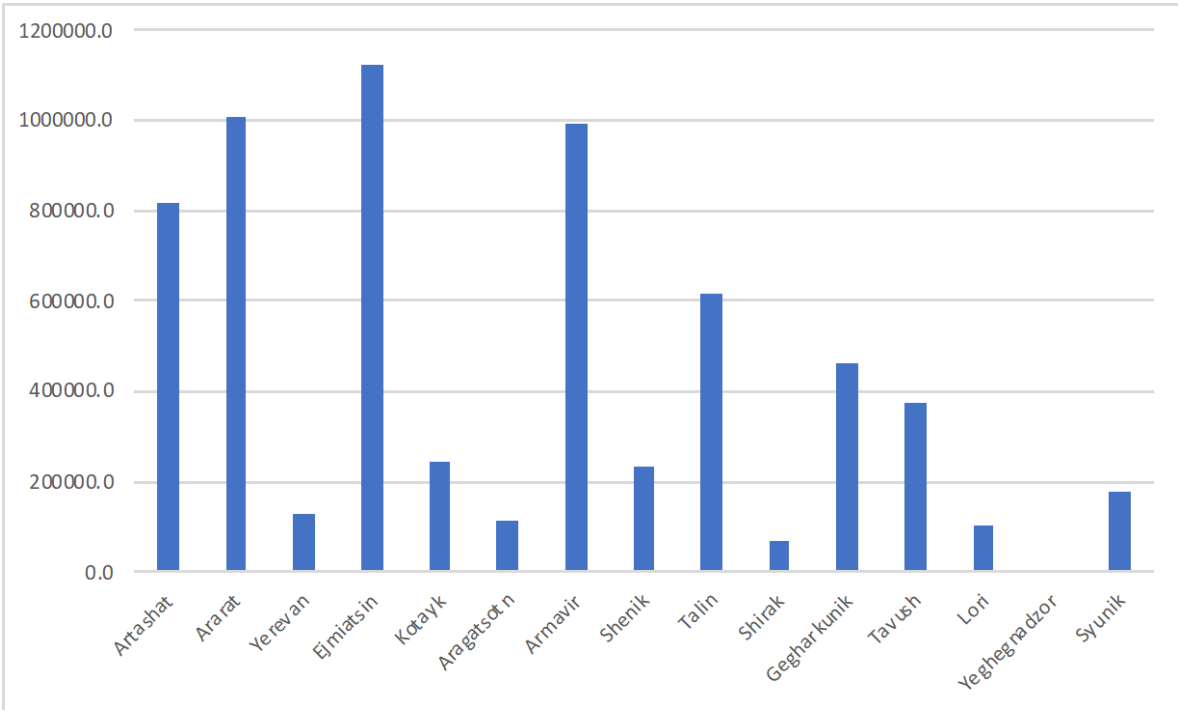

Figure 13: WUA electricity costs in 2022, AMD

Another way to reduce the self-cost of irrigation water is to upgrade pumping stations by equipping them with more efficient pumping units. The latter refers to those pumping stations, where there is no possibility of replacement with a gravity system. The modernization of pumping stations will lead to a decrease the specific cost of electricity, that is, less electricity will be spent for pumping a unit of water, ensuring the satisfaction of water demand and saving electricity costs.

Figure 14: Kaghtsrashen pump station

Repair and reconstruction works of irrigation systems can provide a significant result in reducing the self-cost of irrigation water, which will directly lead to the reduction of water losses in irrigation systems. The mentioned measures can provide maximum results if applied to mechanical water transfer systems, in particular drainage canals of pumping stations and tertiary canals used for transferring water pumped by deep wells. In this case, the reduction of water losses leads to the saving of the amount of water taken from the water-sources and, accordingly, the amount of electricity used for the water intake.

Figure 15: Canals within the service area of "Kotayk" WUA

The application of new irrigation technologies (drip and rain sprinkler irrigation) in the area of mechanical water supply can have a significant impact on lowering the self-cost of irrigation water, which leads to a significant saving of water used.

In reducing the self-cost of water, the factor of the institutional development component cannot be ignored. In particular, the continuous development of the water accountability system, the furnishing by hydrometric observation points with modern water meters and the application of hydrometric approach, the more detailed accounting and analysis of the actual consumed electricity, as well as the improvement of irrigation management, which will lead to the saving of financial resources and the reduction of the self-cost of water.

Strategic measures to reduce the self-cost of water are proposed to be considered in the following group of programs:

- programs aimed at reducing the costs of irrigation system operation;
- programs aimed at replacing mechanically operating irrigation systems with gravity;
- programs for the modernization of mechanically operating irrigation systems;
- programs directed to the construction of drip or rain sprinkler irrigation networks in irrigated lands under the rule of mechanically operating irrigation systems;
- programs aimed at ensuring the maintenance and secure operation of irrigation systems;
- programs aimed at increasing the effectiveness of the expenditures made by WUAs;
- programs aimed at the reduction of water losses, the installation of water measuring devices, as well as the modernization of the water metering system.

Reducing the self-cost of irrigation water is hindered by the following problems in irrigation systems:

- presence of large losses of irrigation water in irrigation systems;
- the relatively large weight of the costs of mechanically operated irrigation systems in the total self-cost of irrigation water;
- the high wear and tear of existing irrigation systems and due to this, the amount of water losses, as well as the continuous increase in the need for capital investments;
- physical and moral wear and tear of pumping equipment providing mechanical water supply, high electricity costs associated with their operation.

In order to reduce the self-cost of irrigation water and consequently reduce the ISF for supplied irrigation water, it is recommended to implement the following measures:

- reduce irrigation water losses by implementing an annual program of major repairs of irrigation systems, defining it by the Law on the State Budget of the Republic of Armenia for each year;
- direct the funds of the donor programs aimed at the modernization of irrigation systems to the replacement of mechanically operating systems with gravity irrigation systems;
- in order to attract investments in irrigation systems, to implement a targeted public-private partnership policy, within the framework of which it is advisable to implement small and medium-sized reservoir construction projects, applying beneficial approaches for the private sector;
- in order to carry out continuous accounting of the supplied irrigation water, to modernize the water intake points in the irrigation water supply systems and the dividing nodes from the main water pipes to the tertiary canals, equipping them with modern water measuring equipment and a corresponding control centre;
- establish a monitoring system (annual monitoring plan and evaluation) for the purpose of evaluating the costs incurred by the irrigation water supply organizations to evaluate the qualitative and quantitative indicators formed as a result of the incurred costs, in particular, what qualitative new capabilities have been created for the water supply organization, what additional value has been created the incurred expenditure and as a result of the effective implementation of the activity, how the incurred expenditure affected the quality of services provided to water users or other result indicators.

As a result of the implementation of the measures mentioned above, the expected results can be: the increase of the volumes of supplied irrigation water and therefore the revenues, the improvement or modernization of the technical condition of the irrigation system and therefore the reduction of the self-cost of irrigation water, the increase of the specific weight of the irrigation water to be supplied by gravity, therefore the saving of electricity, which will lead to the reduction of the self-cost of irrigation water, the promotion of small and medium-sized reservoir construction and therefore the reduction of the self-cost of irrigation water, the formation of the accountability system for the receipt of water and irrigation water

from local sources and the supply to water users and therefore the clear accrual of revenues, effective monitoring (annual monitoring plan and evaluation) of the incurred costs system availability.

As **Option 1** for reforming ISF, it is proposed to consider a gradual increase of the fee of irrigation water to be supplied to water users over a period of six years, increasing it by 2 drams every two years (in case of an increase of 2 AMD each time, the ISF increase will be 15%) per cubic meter of water, in which case each year (582,000 cubic meters average of water supply in 2021 and 2022, see Table 2) will increase the income of WUAs by 1.166 million AMD (Table 9) or an average of 61.7% of the income (Table 1) will increase annually by AMD 709.2 million (Table 9). However, in the 4th line of the table presented in Table 9 (see the "Description" column), it is shown that the 61.7% of revenue indicator is used as the average collection indicator for 2024, and each subsequent year, by increasing it by 15% compared to the previous year. It should be also noted again that the ISF for one cubic meter of irrigation water supplied to water users did not change from 2010 to 2022 and amounted to 11.0 AMD/m^3.

In the table presented in Table 9, it is also indicated what the debt and financial gap indicators of WUAs will look like in case of application of Option 1, which will significantly decrease (see the 8th, 9th and 10th lines of the table presented in Table 9, as well as their corresponding "Description" column).

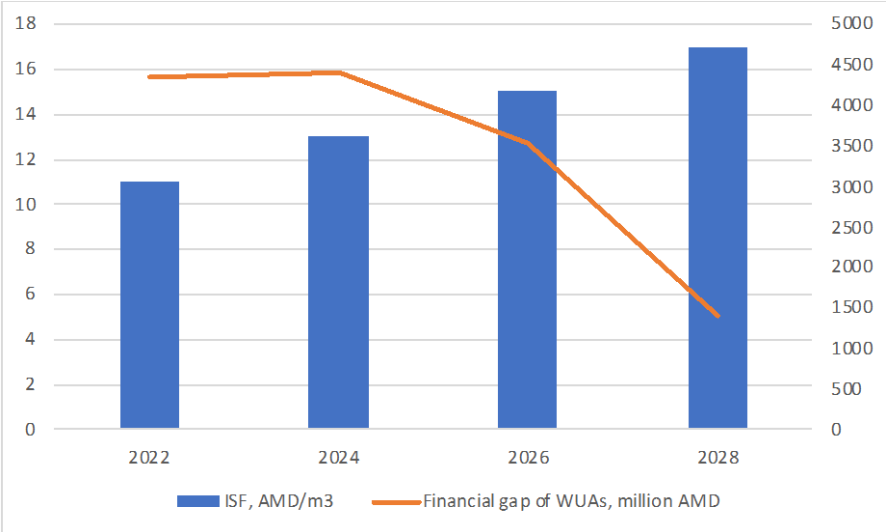

Figure 16: Proposal option 1 of reforming ISF to cover O&M and reduce financial gap

As **Option 2** for reforming ISF, it is proposed to consider Table 4 indicators and direct the subsidies to be provided from the RoA state budget only to WUAs for the reimbursement of electricity and purchased water costs via paying suppliers directly from the treasury account on behalf of WUAs. At the same time, it is suggested to discuss the recommendations presented in this report on the optimization of electricity and water costs in the context of including them in the program of government measures.

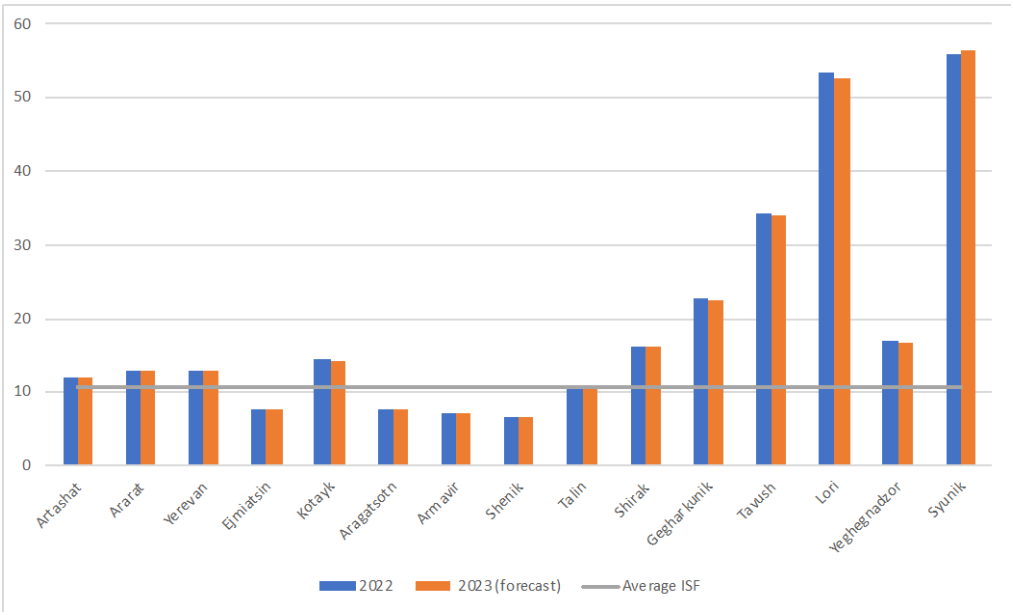

Figure 17: Proposed Option 2, ISF without electricity costs and purchased water

As **Option 3** it is proposed to observe the possibility to introduce a two-tier ISF for WUAs, a per hectare fee to cover the fixed cost, and a variable cost based on the volume of irrigation water received. A per hectare fixed fee could be applied only for the water users who have contracts with WUAs in the given year.

This approach was adopted by the Government of Armenia Protocol Session Resolution No 33 of August 25, 2016 within the Strategy for Improvement of Irrigation Sector's Financial Sustainability. However, at that period the policy implementation authorities and decision-makers find it unrealistic application of the two-tier ISF, so it was not actually introduced. However, as one of the options for cost-recovery the study team proposed that decision makers to take this possibility into consideration together with the other two options.

As for variable cost based on the volume of irrigation water received, different approaches can be applied: a) fixed price (independent of the volume of irrigation water use); b) decreasing price (price of irrigation water per 1 m^3 decreases parallel to the decrease of water use volume); and c) increasing price (price increases when certain marginal volume of irrigation water use is exceeded). This latter approach is usually applied under water stress conditions.

Table 8: Self-cost of irrigation water, calculated by the actual indicators of WUAs for 2021-2022 and forecasted, based on planning indications for 2023

№	Name of the WUA	Self-cost of irrigation water supplied to water users by the WUA, calculated with the sum of all current costs (AMD)			Self-cost of irrigation water supplied to water users by the WUA, excluding electricity costs (AMD)			Self-cost of irrigation water supplied by the WUA to water users, excluding purchased water cost (AMD)			Self-cost of irrigation water supplied by WUA to water users, excluding electricity and purchased water costs (AMD)		
		2021	2022	2023 (prediction)	2021	2022	2023 (prediction)	2021	2022	2023 (prediction)	2021	2022	2023 (prediction)
1	Aratashat	24.02	29.36	29.32	14.57	18.62	18.58	17.23	22.77	22.74	7.78	12.03	11.99
2	Ararat	33.13	35.98	35.91	12.40	13.03	12.95	33.09	35.94	35.87	12.36	12.99	12.92
3	Yerevan	19.40	21.96	21.87	13.96	15.50	15.41	16.57	19.44	19.35	11.13	12.99	12.89
4	Ejmiatsin	22.12	24.27	24.23	11.92	12.26	12.22	16.83	19.65	19.61	6.63	7.64	7.60
5	Kotayk	19.83	22.43	22.35	14.40	16.24	16.17	17.83	20.56	20.49	12.40	14.38	14.31
6	Aragatsotn	10.39	11.75	11.71	8.76	9.72	9.68	8.54	9.83	9.78	6.92	7.80	7.75
7	Armavir	20.89	16.96	16.93	9.45	8.65	8.62	19.39	15.48	15.45	7.95	7.17	7.14
8	Shenik	11.27	11.80	11.77	7.81	8.54	8.51	9.50	9.92	9.89	6.05	6.66	6.63
9	Talin	30.61	32.98	32.90	14.23	13.49	13.42	27.61	29.98	29.90	11.22	10.49	10.43
10	Shirak	21.02	23.72	23.58	17.23	19.14	19.01	17.98	20.85	20.71	14.18	16.27	16.14
11	Gegharkunik	69.75	72.31	72.21	24.35	22.65	22.52	69.75	72.31	72.21	24.35	22.65	22.52
12	Tavush	71.24	74.06	73.82	31.78	34.31	34.10	71.24	74.06	73.82	31.78	34.31	34.10
13	Lori	75.44	82.73	81.62	48.70	53.47	52.64	75.44	82.73	81.62	48.70	53.47	52.64
14	Yeghegnadzor	22.15	25.86	25.70	22.15	25.86	25.70	14.84	16.94	16.80	14.84	16.94	16.80
15	Syunik	85.36	95.97	97.03	52.69	56.02	56.48	85.30	95.88	96.94	52.64	55.93	56.39
	Average indicator	**22.91**	**24.33**	**24.27**	**12.80**	**13.65**	**13.59**	**19.82**	**21.49**	**21.43**	**9.72**	**10.81**	**10.75**

Source: Analysis based on the data, provided by the Water Committee, MTAI, 2023

Table 9: Scenario of irrigation ISF increase supplied to water users by WUAs for option 2 presented in the report

No	Names of indicators	Measurement unit	2024	Increase or decrease compared to the previous year	2025	Increase or decrease compared to the previous year	2026	Increase or decrease compared to the previous year	2027	Increase or decrease compared to the previous year	2028	Increase or decrease compared to the previous year	2029	Increase or decrease compared to the previous year	Explanation
1	Supply of water by WUAs to water users	1000 m^3	583,000	0	583,000	0	583,000	0	583,000	0	583,000	0	583,000	0	The average indicator for the years 2021 and 2022 is taken as the water supply indicator and as an assumption, it will not change for the years 2024-2029.
2	ISF for irrigation water supplied by WUAs to water users	AMD/ m^2	13	2	13	0	15.0	2	15	0	17	2	17	0	Option N1 of the report proposes to increase the ISF by two drams every two years starting from 2024
3	Irrigation water supply to the company's water users	1000 AMD	7,579,000	695,200	7,579,000	0	8,745,000	1,166,000	8,745,000	0	9,911,000	1,166,000	9,911,000	0	The revenue is calculated based on the multiplication of the price of water supply and irrigation water
4	Revenue from irrigation water supplied by WUAs to water users	1000 AMD	5,437,545	709,245	6,253,177	815,632	6,253,177	0	7,191,154	937,977	8,269,827	1,078,673	9,510,301	1,240,474	61.7% of revenue collection is used as the average rate of collection for 2024, with increasing the collection rate by 15% each subsequent year.
5	Calculation or accounting of current costs	1000 AMD	13,775,500	0	13,775,500	0	13,775,500	0	13,775,500	0	13,775,500	0	13,775,500	0	The average indicator of 2021 and 2022 is taken as the current expenditure indicator, and it is assumed that it will not change for the years 2024-2029.
6	Total payments for expenses and payables	1000 AMD	14,228,441	-417,359	14,160,500	-67,941	14,160,500	0	14,102,750	-57,750	14,053,662	-49,088	14,011,938	-41,724	As the payment of expenses and debts, the assumption is applied that in case of an increase in the ISF, 15% of

No	Names of indicators	Measurement unit	2024	Increase or decrease compared to the previous year	2025	Increase or decrease compared to the previous year	2026	Increase or decrease compared to the previous year	2027	Increase or decrease compared to the previous year	2028	Increase or decrease compared to the previous year	2029	Increase or decrease compared to the previous year	Explanation
															the debts incurred in previous years will be paid every year.
7	State financial support	1000 AMD	4,379,800	0	4,379,800	0	4,379,800	0	4,379,800	0	4,379,800	0	4,379,800	0	The indicator of 2023 is taken as the basis for state financial support and the assumption that the amount of support will not change in the following years
8	Debts of WUAs as of the last day of the reporting year	1000 AMD	3,019,606	0	2,566,665	-452,941	2,566,665	0	2,181,665	-385,000	1,854,415	-327,250	1,576,253	-278,162	Based on the creditor debt indicator, which will be the last indicator of the year 2023 and the indicators of the 6th line of this table
9	Receivables of WUAs as of the last day of the reporting year	1000 AMD	2,566,665	-452,941	2,181,665	-385,000	2,181,665	0	1,854,415	-327,250	1,576,253	-278,162	1,339,815	-236,438	Calculated based on a 15% accounts payable scenario per year
10	Financial gap of WUAs	1000 AMD	-4,411,096	4,064,010	-3,527,523	883,573	-3,527,523	0	-2,531,796	995,727	-1,404,035	1,127,761	-121,837	1,282,198	The financial gabs has been calculated based on the assumptions suggested in this table

Source: Analysis based on the data, provided by the Water Committee, MTAI, 2023

4. AFFORDABILITY ASSESSMENT AND IDENTIFICATION OF ACCOMPANYING MEASURES

To improve cost-recovery, Chapter 3 of this report proposes three options for reforming ISF. One of the options envisaged gradual increase of the ISF from the current 11 AMD/m^3 up to 17 AMD/m^3 in 2026. This chapter performs initial assessment of implications of such increase on farmers and explores the feasibility of practical accompanying measures, where the increase of ISF would be unacceptable.

To perform the assessment, the study team has reviewed the report "Crop Production Costs and Revenues in Armenia" (2009), prepared within the High-Value Agriculture Component of the Water-to-Market Activity of the Irrigated Agriculture Project, funded by the Millennium Challenge Corporation. The analysis performed in 2009 was updated with recent information on all aspects of fruit and vegetable production costs by the farmers, including the following:

- Material costs;
- Fertilizers (Manure, Nitrogen, Phosphorous, Potassium);
- Soil preparation works (soil preparation and ploughing, soil levelling, weed-hooking);
- Seeds;
- Chemicals;
- Irrigation service fee;
- Harvesting;
- Labour.

There is no consensus in the literature on the threshold to evaluate the affordability of water expenditures for farmers. To some extent this is a political decision, that the Armenian Government has to make. In Iran, for example, water charges must be within the range of 1-3% of the gross value of crop output; in India, a policy review recommended that water rates should lie within the range of 5-12% of gross farm revenue.

Given the absence of widely accepted threshold defining affordability of irrigation water, the study team explored the issue more in detail with respect to the specific Armenian context and informal discussions with farmers. Thus, in the context of this study it is proposed to consider that there might be affordability issues if the share of ISF exceeds 10% of the overall production cost for farmers.

Once again, 10% is taken as an affordability threshold for illustrative purposes - knowing that it is just an assumption, and that further research and policy negotiations should establish a suitable threshold for Armenia.

In the light of these assumptions, below are the summary results of the affordability analysis performed, in the context of the share of ISF in the overall cost structure for farmers.

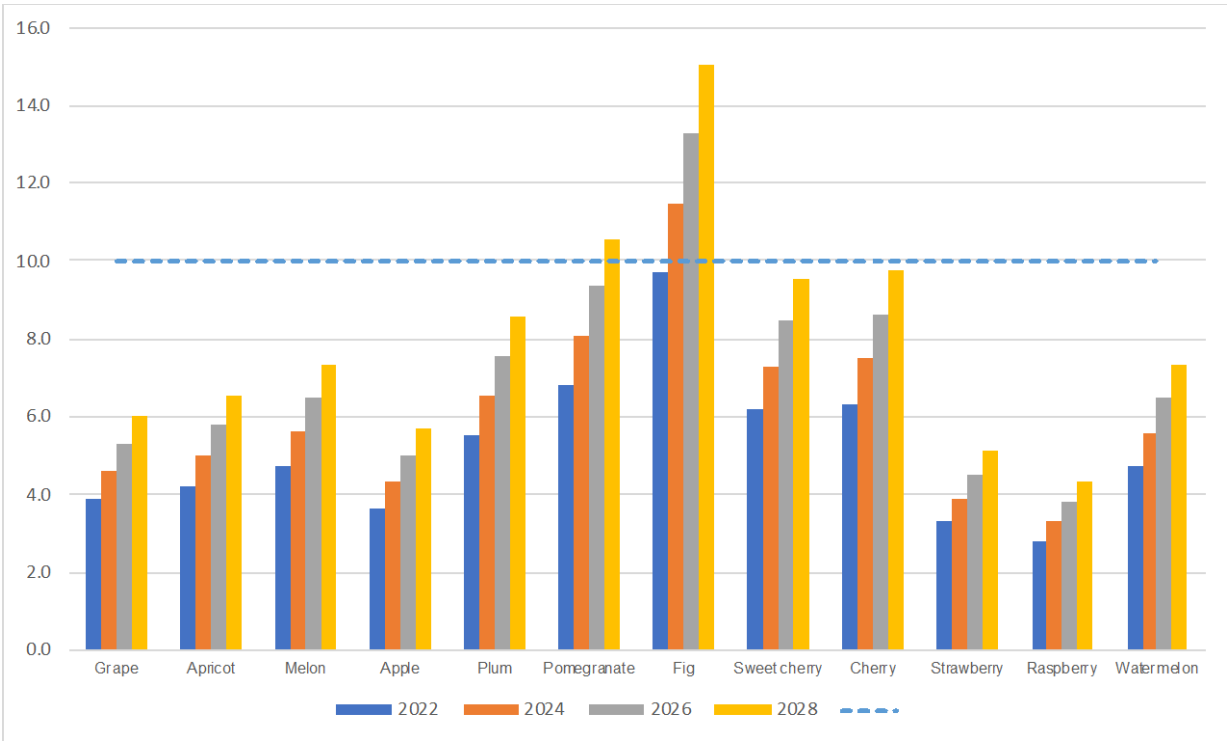

Figure 18: Share of ISF in the overall cost structure for fruits

The analysis shows that under the current situation, for fruit production ISF does not create any affordability issue for farmers given that in the overall cost structure for farmers, the share of ISF varies between 2.8% (for raspberry) up to 9.7% (for fig). With the proposed increase of ISF up to 17 AMD/m^3 in 2026, in case all other parameters remain the same, the share of ISF in overall fruit production costs for farmers will range from 4.3% up to 10.6% (pomegranate) and 15.0% (fig). Thus, certain affordability issues for production of pomegranate and fig might emerge.

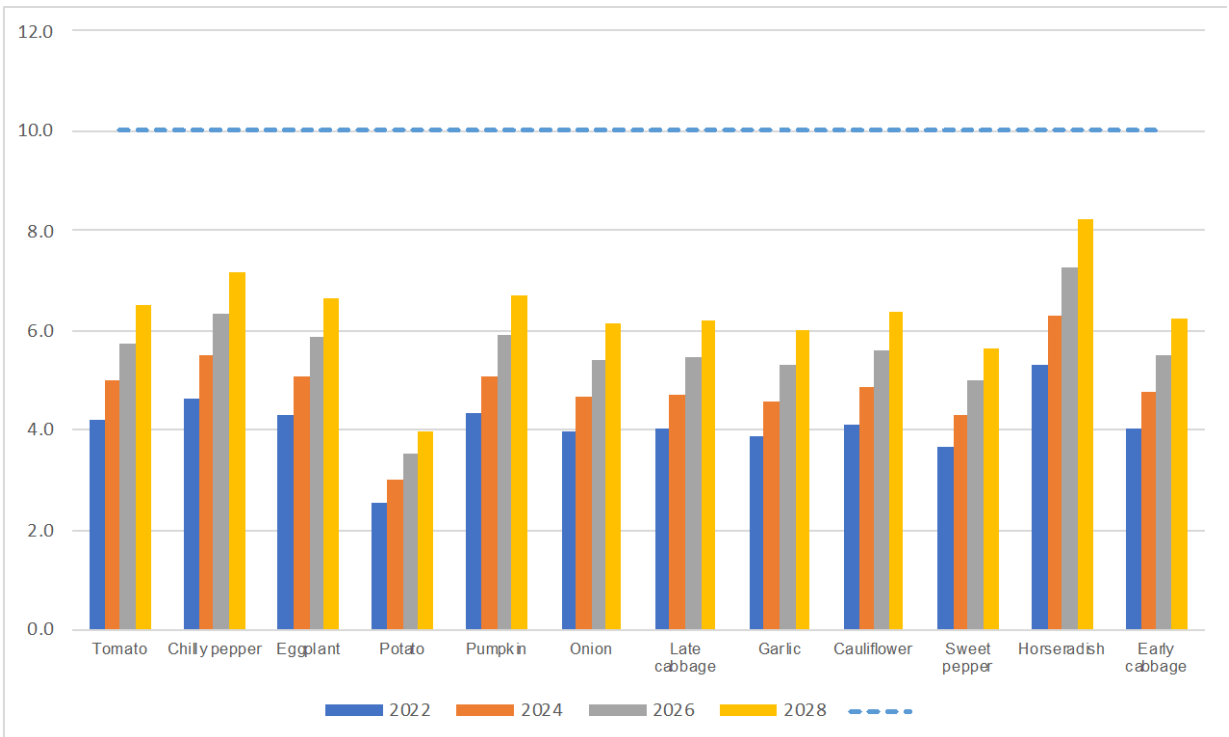

Figure 19: Share of ISF in the overall cost structure for vegetables

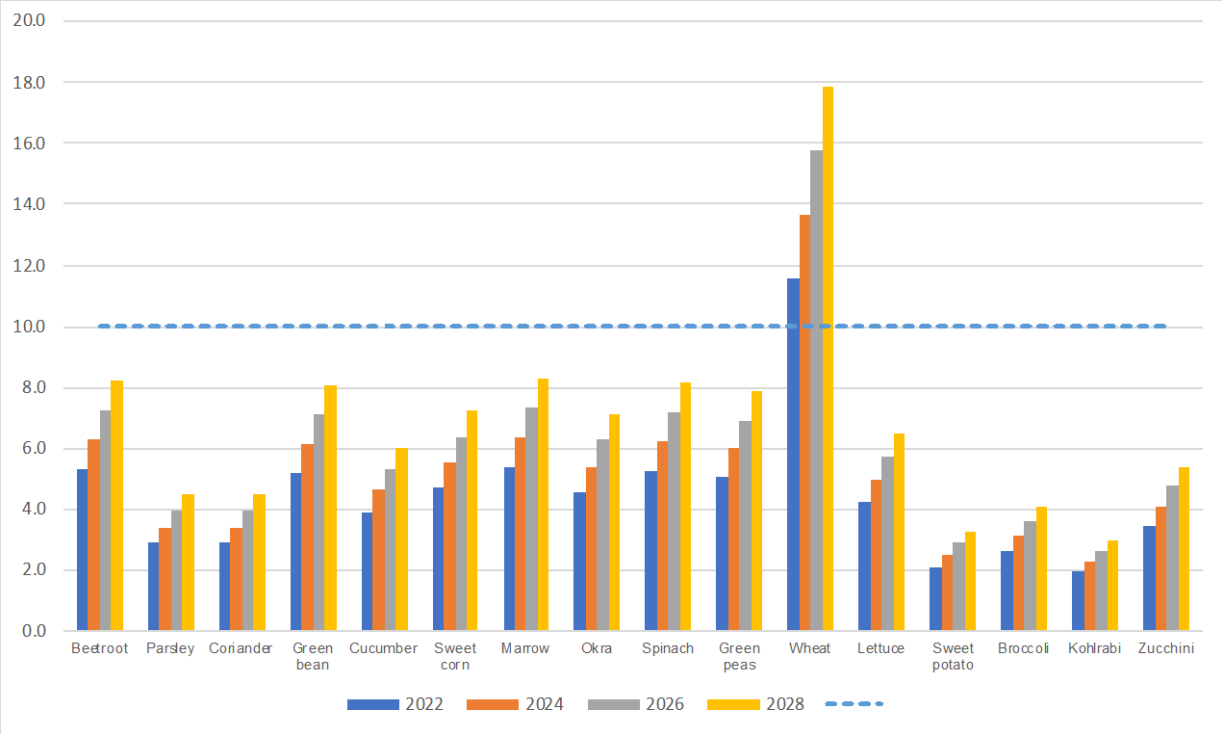

Figure 20: Share of ISF in the overall cost structure for vegetables (continued)

As for vegetables, there is only affordability issue with wheat production, given that under the current situation ISF for wheat is already above the 10% threshold (11.6%) of the total productions cost, and in 2026 this figure is expected to further increase up to 17.9%, aggravating the affordability issues among farmers that grow wheat. For all other types of vegetables the ISF is fully within the affordability benchmark both under the current scenario (ranging from 1.9% for kohlrabi up to 5.4% for marrow) and in 2026, after the increase of ISF up to 17 AMD/m^3 (ranging from 3% for kohlrabi up to 8.3% for marrow). Thus, except wheat, no affordability issues should emerge with the proposed option 1 of reforming ISF for vegetables.

Having said this, it should be noted that about 27,000 ha of agricultural lands within the service area of WUAs, according to the Water Committee of MTAI are over-normative lands, using more water due to high infiltration of soils. The issue with over-normative lands is still open and Government did not find any solution, and while the farmers of these lands pay regular ISF similar to the other farmers, their debt to WUAs continues to accumulate.

Thus, the proposed scenario of ISF reform most likely will create affordability issues for over-normative land owners, and there is a need to address this issue, together with certain types of crop production (fig, pomegranate, wheat), where ISF revision will exceed the 10% affordability threshold.

There is a certain range of accompanying measures to reduce the affordability concerns, which require policy interventions from the Government side. For example, in Khachik village, which is bordering with Azerbaijan and the cost of irrigation is very high, the Government is subsidizing it. Moreover, the farmers of the village pay only 50% of the current ISF (5.5 AMD/m^3) and the rest is subsidized by the Government.

In this regards, the key policy questions that he Government needs to answer includes the following: How could the state subsidies be best allocated to different irrigation schemes or irrigators? How affordable this would be? For whom?

Based on this, to mitigate the affordability concerns there might be a decision to provide subsidies by crops (e.g. for pomegranate, fig, wheat), where ISF exceeds affordability threshold. Alternatively, the irrigation subsidies can be maintained and reduced to the maximum acceptable level for the farmers. Another approach would be establishment of cross-subsidization mechanisms from other WUAs. The choice of one of the options will depend on the availability of public budget, or acceptability considerations, and ultimately, it is a political decision.

Finally, another alternative could be to establish differentiated ISF based on the type of irrigated crops. But for this the overall strategy objectives must be clear: are unprofitable crops (e.g. wheat) necessary for the livelihoods in rural areas? In this case lower ISF could be applied to unprofitable crops and higher ISF to profitable crops. If, in contrast, only profitable crops should be grown in Armenia, irrigation subsidies could be removed and unprofitable crops will disappear or be reduced as a direct effect.

5. THE CURRENT SYSTEM OF IRRIGATION SUBSIDIES AND OPTIONS FOR REFORMS

5.1. The Current System of Irrigation Subsidies and Existing Problems

The legal relations for providing financial assistance to WUAs from the state budget of the RA are regulated by the following legal acts:

- Civil Code of the RoA,
- Law of the RoA "On WUAs and WUA Federations", 2002,
- Law of the RoA "On the State Budget System of the Republic of Armenia", 1997
- Armenian laws on the state budget, Government resolutions on medium-term public expenditures framework
- Resolution of the GoA on the approval of medium-term public expenditures framework and other by-laws including Resolution of the GoA No.1937-N dated 24.12.2003 "On the Approval of Procedures for Providing State Assistance and Grants to Legal Entities from the State Budget of the Republic of Armenia",
- Resolution of the GoA No.188-N dated 08.02.2007 "On Fundamental Concepts of Improvement of State Financial Assistance to WUAs and on Approving Loss Norms for Delivered Irrigation Water",
- Resolution of the GoA No.1334-N dated 25.10.2007 "On the Approval of Sample Agreement Form for Providing Financial Assistance to Associations Providing Irrigation Services and on Amending Resolution of the GoA No.188-N dated 08.02.2007",
- Resolution of the GoA No.1291-N dated 30.09.2010 "On Approving the Mid-Term Strategy for Providing State Assistance to Water Users Associations and Ensuring the Implementation of some Actions Emerging from the Strategy".

Calculation of subsidies provided to the Armenian irrigation sector is based on the cost structure, meantime expenses are specified by state governance bodies implementing the state policy in the respective sector with the agreement of the Ministry of Finance of the RA. The subsidy is provided based on the subsidy providing agreement signed between the organization and the state body in charge of regulation of respective sector. The resolution also specifies the content of that agreement and its main provisions.

In particular, according to Resolution of the GoA No.1937-N dated 24-12-2003 "On the Approval of Procedures for Providing State Assistance and Grants to Legal Entities from the State Budget of the Republic of Armenia", the cost structure and expenses which serve as a basis for calculation of subsidies are set by the state governance bodies implementing state policy in the respective sector with the agreement of the Ministry of Finance of the RA. In case of WUAs, the State Committee of Water Systems (currently Water Committee) is the respective state governance body.

In order to get funding for the next year, WUAs submit applications to the Water Committee. Applications are approved if they comply with the requirements of relevant resolutions of the GoA and if the preconditions are met. WUAs get state funding based on the agreement approved by Resolution of the GoA No.1334-N dated 25.10.2007 "On the Approval of Sample Agreement Form for Providing Financial Assistance to Associations Providing Irrigation Services and on Amending Resolution of the GoA No.188-N dated 08.02.2007".

As a matter of fact, the state subsidies allocated to WUAs in Armenia is aimed to cover the financial gap, resulted due to self-cost of the irrigation water supply by WUAs and the collected irrigation service fee.

Thus, the state subsidies to WUAs are provided according to traditional expense method. The subsidies are provided under agreements upon fulfilment of the following preconditions:

- maximal threshold for irrigation water fee (selling tariff);
- minimal irrigated area – to be determined individually for each entity;
- maximal threshold for payables which shall not exceed the level clearly defined by the agreement.

Regulations specify irrigation water loss levels and how they will be applied. The manipulation with irrigation water loss levels may serve as a precedent for the frequent revision of subsidy amount to be fixed by the agreement.

In the period of 2018-2022 Armenia has on average spent annualy 8973.5 mln AMD from the state budget, in order to subsidize WUAs (or approximately 118900 AMD per 1 hectare), which on average composes over 0.13% of country's GDP. Despite this, the irrigation subsidies did not result in significant improvements in irrigation, and have not promoted significant improvements in accessibility of irrigation water, reduction of potential risks of soil degradation and improvement of financial indicators of WUAs.

If we explore the dynamics since 2006, it is evident that in terms of long-term economic efficiciency the subsidies have not been particularly efficient, taking into consideration the dynamics of certain key indicators (actually irrigated areas, operation costs, electricity consumption, water supply, debts of the sector), and there is an emiment need to reform the current system of subsidies.

5.2. Proposed Principles for Reforming Irrigation Subsidies

While reforming the system of subsidies allocation to WUA sone should take into consideration the following main drawbacks of the current system:

- No significant improvements are recorded in the irrigation system indicators and thus the subsidies, the way they are set-up currently, have very little potential to help achieving established/desirable policy objectives for the irrigation system of the Republic of Armenia. Particularly, the analysis shows that in the last 15 years decrease of actually irrigated areas, increase of electricity consumption, reduction of actual water supply, and increase of the average debts of the sector is observed, which questions the efficiency of allocated subsidies.
- There are several difficulties and challenges in implementing, ensuring compliance and monitoring the process of allocation of irrigation subsidies in Armenia. Currently irrigation subsidies are provided according to traditional expense method, under an agreement to compensate for the electricity tariff. Regulations specify irrigation water loss levels and how they will be applied, however, the manipulation with irrigation water loss levels very often serve as a precedent for the frequent revision of subsidy amount to be fixed by the agreement.
- The irrigation subsidies, particularly in the form they are allocated currently, are not fully in line with the four principles of financing of water resources management, particularly the user pays principle, which states that beneficiaries of water services must adequately contribute to the provision of these services, and the costs of providing water services must in fact be covered by the beneficiaries of such services. Thus, only partial application of the user pays principle is applied, given that the ISF does not cover full service costs, and not even O&M cost, and moreover, no investment costs are

considered. It is expected that this contributes to the progressive deterioration of the state and performance of the irrigation infrastructure.

- As the analysis of several indicators (actually irrigated areas, operating costs, consumed electricity, supplied water, debts of the sector) above showed, allocation of subsidies did not have any significant positive impact on long-term economic efficiency of the irrigation sector
- Subsidies, in the form they are now create certain barriers in terms of political and social acceptance. Particularly, while the positive impact on vulnerable and poor farmers is obvious, there are serious doubts about the appropriateness of allocation subsidies for wealthy farmers with large land areas, for when the full application of ISF would not create any affordability issue. To avoid similar issues in other sectors (e.g. gas, electricity) of economy in Armenia, the allocation of subsidies in gas and electricity sectors was replaced by targeted allocation of targeted fixed lump sum to the poorest part of population, to help them covering the respective service fees.

On the other hand, reforming the system of subsidies will make it possible to ease the burden on the Armenian state budget, develop for efficient mechanisms for providing state budget funding, as well as increase the efficiency of WUAs financial performance as more independent and autonomous organizations.

Thus, the Government of Armenia should make a transition from subsidies covering the budget deficit of WUAs to subsidies promoting local investments. Subsidies may also be used for efficient regulation of the irrigation sector and providing necessary support to WUAs through development of the service provision capacities. In this regards it is advisable to make a shift to formation of a budget for WUAs, which is based on the realistic needs of operation, maintenance and management.

Before development of new arrangements for funding the WUAs from the Armenian state budget and ensuring the measures for their introduction, there is a need to clarify the approach and answer the following questions:

- Is there currently a vision of adequate improvements, political will, need, substantiation, resources and legal framework?
- Would the introduction of new arrangements will result in higher efficiency (of financial efficiency in particular) of WUAs and irrigation sector in general?
- Would the introduction of new arrangements will result in higher efficiency of funding of some of programs financed from the Armenian state budget?
- Is there a need to change the content, structure or methods of providing funding to WUAs from the Armenian state budget?
- Would the introduction of new arrangements will result in institutional development and capacity strengthening and maturation of WUAs and will promote subsidies for local investments?
- Would these new arrangements will ensure full cost-recovery of management, operation and maintenance activities of WUAs?

Although the process of WUA funding from the State budget of the RA has to be continued in order to strengthen administrative and operational capacities of WUAs, the main focus of assistance should be shifted towards the elements of practical operation which will increase members' interests towards the wealth and the good performance of their organization.

Summarizing, it could be stated that development of new arrangements for funding of WUAs from state budget of the RoA should be based on the following principles:

- The introduction of new arrangements will result, in general, in higher efficiency of irrigation sector, in particular in improving the financial efficiency and operational sustainability.
- The introduction of new arrangements will result in improved the funding efficiency and reporting of some programs being implemented through the Armenian state budget.
- The introduction of new arrangements will result in institutional development and capacity strengthening and maturation of WUAs and will promote subsidies for local investments.
- The introduction of new arrangements will enhance full cost-recovery of management, operation and maintenance activities of WUAs.

As for the specific option of reforming the sytem of irrigation subsidies, then its selection is highly contingent upon which option of covering irrigation service fee, presented in the Chapter 3 of this report, is selected by the policy makers.

With one of the options it was proposed to allocate state budget subsidies only for covering the electricity costs and purchase of bulk water by WUAs, through direct payments to the suppliers of these services on the name of WUAs.

If the option for differentiated irrigation service fee is selected (based on the crop pattern), and for example a decision is made, that in Armenia only profitable crops should be grown, then the irrigation subsidies could be eliminated and, over the time, as a direct impact, the non-profitable would disappear or be significantly reduced.

One of the potential options is provision of subsidies according to crops (e.g. pomegranate, fig, wheat) in cases, where affordability issues arise. Another option would be to reduce the irrigation subsidies to the extent possible, and make the irrigation service fee the closes to the acceptable level for farmers.

There is also another option to apply cross-subsidies between WUAs.

Finally, in the 2018 OECD study on “Reforming “Harmful” Irrigation Subsidies in Armenia” proposed another option of reforming irrigation subsidies. Particularly, it was suggested that WUAs become subjects of medium-term public expenditure framework (MTEF) of the state budget of Armenia. This means that WUAs would submit applications to the budget each year and plan expensing of budget funds according to methodological instructions specified for MTEF programs. Under this option the state has to set only one precondition - the delivery of a specific volume of irrigation water and define specific “rule of games” for paying against it.

Thus, selection of the proposed options is contingent upon the possibilities of the state budget, acceptance by the farmers, and finally it is a political decision.

At the same time, no matter which option the policy makers define for reforming the system of irrigation subsidier, it is highly recommended to also reform the mechansims of providing state budget funding to the WUAs. Particularly, it is proposed to provide the state financial support to WUAs through the banks, serving the WUAs.

Thus, the water users will be provided with requested grants by the banks serving the sector on the following conditions:

a) The water user opens an account at the bank, and the latter will be provided with exclusive right to manage that account. Bank will get from WUA electronic data bases were the arrears of the water user are reflected. The water user pays his payable amount on his bank account and the bank accrues on the

water user's account the proportional amount of the grant provided from the state budget on the WUA name.

b) In case of getting the respective powers, the bank will process outstanding payable amount of water user as an interest loan provided from the state budget through the bank on the name of the water user. The interest of such loan will be discussed during application of the model. Within 10 banking days after completion of the month, the bank transfers the funds appeared in the name of WUA to WUA's bank account opened in the same bank. Payments from that account will be made on non-cash basis through WUA's bank order.

From one side the bank actually acts as a financial agent of the Government of Armenia, and on the other side – as a collecting agent, i.e. collects fees for delivered irrigation water for an adequate commission fee.

Application of this approach provides several advantages:

- WUA gets all fees for the delivered irrigation water, which increases the level of financial sustainability of WUA and reduces payables risks.
- Under this option, the GoA may order water users to grow and sell to the state the required agricultural product which will have maximal impact on GDP.
- The water user (as a person and a citizen) will directly see and feel the assistance of the state, which among others may also have political importance.
- The process of fund allocations from the state budget of the RA becomes more transparent.

Under the arrangement presented in this option the state may also provide various financial assistances to farmers or compensate for damages, for instance compensate irrigation water fees of water users, or damages caused by the loss of agricultural products due to frost or other weather impacts.

6. POLICY RECOMMENDATIONS FOR DECISION MAKERS

The irrigation service fee for the water supply by WUAs to farmers has not changed in Armenia since 2010 and composes 11 AMD/m^3, which within the same period the electricity tariff has raised from 25 AMD/kWh up to 48.53 AMD/kWh, the average annual inflation was a the rate of 4% and the O&M costs of WUAs have significantly increased. In 2022 the average self-cost of irrigation water supply by WUAs has composed 24.3 AMD/m3, thus there as a priority need to revise current ISF.

The approach for reforming the irrigation service fee should be based on balancing the two main principles of cost-recovery and affordability:

- Cost recovery principle: costs for irrigation water supply, at least in terms of operational and maintenance costs, should be covered by the irrigation service fee;
- Affordability principle: irrigation service fee should be affordable for the water users.

Several options for reforming ISF for the irrigation water supplied to farmers by WUAs are proposed for consideration:

- As the first option of reforming ISF it is suggested to explore the possibility for gradual increase of the irrigation service fee supplied to the farmers by WUAs within 6 years, every other year increasing it by 2 AMD;
- Under the second option it is proposed to direct the state budget subsidies to WUAs only for compensation of the consumed electricity and purchase of bulk water, through making direct payments of these service supplies through treasursy accounts on behalf of WUAs;
- The thir option proposes exploring the possibility of introduction of two-tier ISF, including fixed fee per hectare of lands and variable fee based on the volume of water used. Moreover, while defining the fee for variable cost based on the volume of irrigation water received, different approaches can be applied: a) fixed price (independent of the volume of irrigation water use); b) decreasing price (price of irrigation water per 1 m^3 decreases parallel to the decrease of water use volume); and c) increasing price (price increases when certain marginal volume of irrigation water use is exceeded). This latter approach is usually applied under water stress conditions.

In case of application of the first option of reforming ISF certain affordability issues might arise for a set of crops (pomegranate, fig, wheat), for which the ISF will exceed the 10% threshold value of production costs of farmers. However, the proposed threshold value explored by the study team (10% of production costs) needs more detailed analysis by the decision-makers.

The proposed scenario for reforming ISF most likely will create affordability issues also for about 27,000 ha of agricultural lands within the service area of WUAs which are over-normative lands, thus there is a need to develop accompanying measures for them to mitigate the impact, including for the farmers for whom the ISF exceeds the 10% threshold value for the crops cultivated (fig, pomegranate, wheat).

Another urgent issue, which the decision makers and policy implementers should pay attention to, is the current system subsidies, allocated to WUAs. The study of the dynamics of subsidies allocated over the past 15 years shows that in terms of long-term economic efficiciency the subsidies have not been particularly helpful, taking into consideration certain key indicators (actually irrigated areas, operation costs, electricity consumption, water supply, debts of the sector), and there is an emiment need to reform the current system of subsidies

However, the details of reforming the system of irrigation subsidies are highly contingent upoin which option of cost-recovery of ISF is selected by the policy makers.

Based on that, several possible options of reforming irrigation subsidies are possible, including the following:

- Allocate the state budget subsidies only for compensating the WUA costs for consumed electricity and purchase of bulk water, through direct payments to service providers, made bfrom the threasary account on behalf of WUAs;
- Allocate subsidies according to certain crops (for example pomegranate, fig, wheat), hwen the ISF raises affordability issues;
- Make the size of irrigation subsidies closest to the affordability level for farmers;
- Perform cross-subsidization of WUAs;
- Provide subsidies directly to farmers and not to WUAs, putting the main emphasis on vulnerarble population (for example, based on the socially vulnerable population scoring system).

At the same time, no matter which option the policy makers define for reforming the system of irrigation subsidies, it is proposed to also reform the mechansims of providing state budget funding to the WUAs. Thus, the water users will be provided with requested grants by the banks serving the sector, which will provide several advantages:

- WUA gets all fees for the delivered irrigation water, which increases the level of financial sustainability of WUA and reduces payables risks.
- Under this option, the GoA may order water users to grow and sell to the state the required agricultural product which will have maximal impact on GDP.
- The water user (as a person and a citizen) will directly see and feel the assistance of the state, which among others may also have political importance.
- The process of fund allocations from the state budget of the RA becomes more transparent.

Under the arrangement presented in this option the state may also provide various financial assistances to farmers or compensate for damages, for instance compensate irrigation water fees of water users, or damages caused by the loss of agricultural products due to frost or other weather impacts.

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ANNEXES

Annex 1: Artashat WUA - Planned/actual indicators for 2021-2022, forecasts for 2023

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned ...	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned ...			Planned
1	Cadastral irrigable lands of the WUA service area	ha	19,705.6	19,705.6	0.0	0.0%	19,705.6	19,705.6	0.0	0.0%	0.0	0.0%	19,705.6
2	Declared irrigable lands in the WUA service area	ha	11,600.0	11,641.9	41.9	0.4%	11,700.0	11,695.0	-5.0	0.0%	53.1	0.5%	11,700.0
3	Volume of irrigation water received (intake), including:	1000 m^3	150,000.0	137,615.0	12,385.0	23.6%	153,500.0	141,727.6	11,772.4	-31.2%	4,112.6	3.0%	141,900.0
3.1	Obtaining purchased water, including:	1000 m^3	123,800.0	114,015.0	9,785.0	8.4%	126,000.0	110,508.7	15,491.3	-19.0%	-3,506.3	-3.1%	110,600.0
3.1.1	a) by gravity	1000 m^3	93,800.0	75,690.1	18,109.9	-19.3%	88,000.0	73,462.2	14,537.8	-16.5%	-2,227.9	-2.9%	73,500.0
3.1.2	b) mechanically	1000 m^3	30,000.0	38,324.9	-8,324.9	27.7%	38,000.0	37,046.5	953.5	-2.5%	-1,278.4	-3.3%	37,100.0
3.2	Water from local sources, including:	1000 m^3	26,200.0	23,600.0	2,600.0	15.2%	27,500.0	31,218.9	-3,718.9	-12.1%	7,618.9	32.3%	31,300.0
3.2.1	a) by gravity	1000 m^3	4,200.0	5,600.0	-1,400.0	33.3%	2,500.0	1,749.6	750.4	-30.0%	-3,850.4	-68.8%	1,800.0
3.2.2	b) mechanically	1000 m^3	22,000.0	18,000.0	4,000.0	-18.2%	25,000.0	29,469.3	-4,469.3	17.9%	11,469.3	63.7%	29,500.0
4	Consumed electricity	1000 kWh	17,500.0	17,903.8	403.8	2.3%	17,900.0	17,762.8	-137.2	-0.8%	-141.0	-0.8%	17,800.0
5	Water supply by the WUA	1000 m^3	65,250.0	76,318.8	11,068.8	17.0%	86,727.5	76,107.7	-10,619.8	-12.2%	-211.1	-0.3%	76,100.0
6	ISF for water supplied by the WUA	AMD/m^3	11.00	11.00	0.00	0.0%	11.00	11.00	0.00	0.0%	0.0	0.0%	11.00
7	Self-cost of irrigation water supplied by WUAs to farmers, calculated with the	AMD/m^3	25.46	24.02	-1.44	-5.7%	22.68	29.36	6.67	29.4%	5.3	22.2%	29.32

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned			Planned
	sum of all current costs												
7.1	Self-cost of irrigation water supplied by WUAs to farmers, excluding electricity costs	AMD/m^3	15.32	14.57	-0.75	-4.9%	14.68	18.62	3.94	26.8%	4.0	27.8%	18.58
7.2	Self-cost of irrigation water supplied by WUAs to farmers, excluding electricity costs	AMD/m^3	18.71	17.23	-1.48	-7.9%	16.61	22.77	6.16	37.1%	5.5	32.2%	22.74
8	Self-cost of irrigation water supplied by WUAs to farmers, excluding electricity costs	AMD/m^3	932,250.0	839,506.3	-92,743.7	-9.9%	954,002.5	837,185.1	-116,817.4	-12.2%	-2,321.2	-0.3%	837,100.0
9	Calculated membership fee	1000 AMD	16,550.0	11,641.9	-4,908.1	-29.7%	11,700.0	11,965.0	265.0	2.3%	323.1	2.8%	12,000.0
10	Collection of payments related to supplied irrigation water during the reporting period	1000 AMD	906,396.3	571,029.1	-335,367.2	-37.0%	911,355.7	598,518.1	-312,837.6	-34.3%	27,489.0	4.8%	599,000.0
11	Collection of membership fees during the reporting period	1000 AMD	17,550.0	9,469.7	-8,080.3	-46.0%	16,400.0	9,365.1	-7,034.9	-42.9%	-104.6	-1.1%	9,400.0
12	Calculation or accounting of current costs, including:	1000 AMD	1,661,313.0	1,832,973.8	171,660.8	10.3%	1,967,310.9	2,234,308.8	266,997.9	13.6%	401,334.9	21.9%	2,231,600.0
12.1	Spring preparations and current expenditures on fixed assets	1000 AMD	119,350.0	145,259.5	25,909.5	21.7%	232,000.0	182,492.0	-49,508.0	-21.3%	37,232.5	25.6%	182,600.0
12.2	Salary and other equivalent payments (subject to payment)	1000 AMD	279,836.7	289,054.2	9,217.5	3.3%	306,328.8	317,294.0	10,965.2	3.6%	28,239.8	9.8%	317,400.0

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned			Planned
12.3	Income tax on salary and other equivalent payments	1000 AMD	78,928.3	92,277.9	13,349.6	16.9%	95,537.1	96,106.8	569.7	0.6%	3,828.9	4.1%	91,600.0
12.4	Mandatory social security payments	1000 AMD	4,000.0	5,310.3	1,310.3	32.8%	4,000.0	7,461.4	3,461.4	86.5%	2,151.1	40.5%	8,300.0
12.5	Transportation costs and fuel	1000 AMD	25,400.0	32,224.2	6,824.2	26.9%	48,000.0	35,186.1	-12,813.9	-26.7%	2,961.9	9.2%	35,200.0
12.6	Banking, postal, telecommunication costs	1000 AMD	9,060.0	8,886.2	-173.8	-1.9%	6,585.0	9,250.6	2,665.6	40.5%	364.4	4.1%	9,300.0
12.7	Expenses related to bank and other loans	1000 AMD		0.0	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0
12.8	Borrowings from other sources	1000 AMD		0.0	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0
12.9	Economic, representative and other expenses	1000 AMD	20,000.0	8,874.6	-11,125.4	-55.6%	21,000.0	10,811.8	-10,188.2	-48.5%	1,937.2	21.8%	10,800.0
12.10	Expenses related to the rental of immovable or movable property, including taxes	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0
12.11	Electricity costs	1000 AMD	661,500.0	721,088.9	59,588.9	9.0%	694,520.0	817,476.8	122,956.8	17.7%	96,387.9	13.4%	817,800.0
12.12	Water abstraction costs	1000 AMD	440,338.0	517,952.9	77,614.9	17.6%	526,640.0	500,975.4	-25,664.6	-4.9%	-16,977.5	-3.3%	501,200.0
12.13	Reserve fund - co-financing of investment projects and fixed assets	1000 AMD	20,000.0	6,118.5	-13,881.5	-69.4%	32,000.0	6,982.9	-25,017.1	-78.2%	864.4	14.1%	7,000.0
12.14	Value added tax	1000 AMD	400.0	242.4	-157.6	-39.4%	700.0	242.3	-457.7	-65.4%	-0.1	-0.1%	200.0
12.15	Profit tax	1000 AMD		0.0	0.0	0.0%	0.0	181,352.1	181,352.1		181,352.1		181,400.0
12.16	Tax penalties and fines	1000 AMD		0.0	0.0	0.0%	0.0	52,954.8	52,954.8		52,954.8		53,000.0
12.17	Penalties related to electricity payments	1000 AMD		4,679.4	4,679.4		0.0	15,158.7	15,158.7		10,479.3	223.9%	15,200.0
12.18	Other expenses	1000 AMD	2,500.0	1,004.8	-1,495.2	-59.8%		563.0	563.0		-441.8	-44.0%	600.0
13	Calculation or accounting of capital	1000 AMD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned			Planned
	expenditure, including:												
13.1	Capital expenditure on maintenance of irrigation systems	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0
13.2	Capital costs of vehicle maintenance	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0
13.3	Costs of acquisition of fixed assets	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0
13.4	Other capital expenditures	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0
14	Total payments for expenses and payables	1000 AMD	1,637,858.7	1,733,649.7	95,791.0	5.8%	2,993,322.1	2,035,700.7	-957,621.4	-32.0%	302,051.0	17.4%	2,036,600.0
15	State financial support received	1000 AMD	685,358.4	1,106,267.1	420,908.7	61.4%	2,061,780.3	1,439,508.1	-622,272.2	-30.2%	333,240.9	30.1%	4,379,800.0
16	Debts of WUAs as of the last day of the reporting year	1000 AMD	470,023.9	539,351.0	69,327.1	14.7%	523,941.4	721,117.0	197,175.6	37.6%	181,766.0	33.7%	916,117.0
17	Receivables of WUAs as of the last day of the reporting year	1000 AMD	2,680,781.1	2,967,807.3	287,026.2	10.7%	3,010,454.1	3,248,101.0	237,646.9	7.9%	280,293.7	9.4%	3,488,801.0
18	Financial gap of WUAs	1000 AMD	-498,577.9	-586,234.8	-87,656.9	17.6%	-527,727.5	-709,426.4	-181,698.9	34.4%	-123,191.7	21.0%	-647,830.6

Source: Analysis based on the data, provided by WUAs and the Water Committee, MTAI, 2023

Annex 2: Ararat WUA - Planned/actual indicators for 2021-2022, forecasts for 2023

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]			Planned
1	Cadastral irrigable lands of the WUA service area	ha	9,334.9	9,334.9	0.0	0.0%	9,334.9	9,334.9	0.0	0.0%	0.0	0.0%	9,334.9
2	Declared irrigable lands in the WUA service area	ha	5,900.0	5,986.8	86.8	1.5%	6,020.0	6,049.1	29.1	0.5%	62.3	1.0%	6,100.0
3	Volume of irrigation water received (intake), including:	1000 m^3	54,800.0	57,130.0	-2,330.0	-70.0%	55,800.0	60,812.1	-5,012.1	-70.4%	3,682.1	6.4%	61,300.0
3.1	Obtaining purchased water, including:	1000 m^3	1,800.0	1,400.8	399.2	-22.2%	1,800.0	1,619.0	181.0	-10.1%	218.2	15.6%	1,600.0
3.1.1	a) by gravity	1000 m^3	1,800.0	1,400.8	399.2	-22.2%	1,800.0	1,619.0	181.0	-10.1%	218.2	15.6%	1,600.0
3.1.2	b) mechanically	1000 m^3			0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0
3.2	Water from local sources, including:	1000 m^3	53,000.0	55,729.2	-2,729.2	-47.8%	54,000.0	59,193.1	-5,193.1	-60.3%	3,463.9	6.2%	59,700.0
3.2.1	a) by gravity	1000 m^3	600.0	278.3	321.7	-53.6%	600.0	175.0	425.0	-70.8%	-103.3	-37.1%	200.0
3.2.2	b) mechanically	1000 m^3	52,400.0	55,450.9	-3,050.9	5.8%	53,400.0	59,018.1	-5,618.1	10.5%	3,567.2	6.4%	59,500.0
4	Consumed electricity	1000 kWh	21,254.3	20,039.9	-1,214.4	-5.7%	22,500.0	21,567.6	-932.4	-4.1%	1,527.7	7.6%	21,700.0
5	Water supply by the WUA	1000 m^3	35,620.0	40,102.2	4,482.2	12.6%	36,270.0	44,036.6	7,766.6	21.4%	3,934.4	9.8%	44,400.0
6	ISF for water supplied by the WUA	AMD/m^3	11.00	11.00	0.00	0.0%	11.00	11.00	0.00	0.0%	0.0	0.0%	11.00
7	Self-cost of irrigation water supplied by WUAs to farmers, calculated with the sum of all current costs	AMD/m^3	36.67	33.13	-3.54	-9.7%	37.15	35.98	-1.17	-3.2%	2.8	8.6%	35.91
7.1	Self-cost of irrigation water supplied by WUAs to farmers, excluding electricity costs	AMD/m^3	13.64	12.40	-1.24	-9.1%	11.47	13.03	1.56	13.6%	0.6	5.1%	12.95
7.2	Self-cost of irrigation water supplied by WUAs to farmers,	AMD/m^3	36.62	33.09	-3.53	-9.6%	37.10	35.94	-1.16	-3.1%	2.8	8.6%	35.87

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]			Planned
	excluding electricity costs												
8	Self-cost of irrigation water supplied by WUAs to farmers, excluding electricity costs	AMD/m^3	391,820.0	441,127.2	49,307.2	12.6%	398,970.0	484,402.1	85,432.1	21.4%	43,274.9	9.8%	488,400.0
9	Calculated membership fee	1000 AMD	5,900.0	5,986.8	86.8	1.5%	6,020.0	6,049.1	29.1	0.5%	62.3	1.0%	6,100.0
10	Collection of payments related to supplied irrigation water during the reporting period	1000 AMD	382,638.0	423,185.1	40,547.1	10.6%	384,172.1	461,887.9	77,715.8	20.2%	38,702.8	9.1%	466,000.0
11	Collection of membership fees during the reporting period	1000 AMD	6,350.0	5,612.6	-737.4	-11.6%	6,470.0	5,803.9	-666.1	-10.3%	191.3	3.4%	5,900.0
12	Calculation or accounting of current costs, including:	1000 AMD	1,306,136.5	1,328,467.6	22,331.0	1.7%	1,347,347.2	1,584,299.2	236,952.0	17.6%	255,831.6	19.3%	1,594,300.0
12.1	Spring preparations and current expenditures on fixed assets	1000 AMD	129,000.0	99,413.7	-29,586.3	-22.9%	120,000.0	122,609.5	2,609.5	2.2%	23,195.7	23.3%	123,600.0
12.2	Salary and other equivalent payments (subject to payment)	1000 AMD	239,546.0	247,044.6	7,498.6	3.1%	180,258.1	279,659.1	99,401.0	55.1%	32,614.5	13.2%	282,000.0
12.3	Income tax on salary and other equivalent payments	1000 AMD	68,111.4	79,487.7	11,376.3	16.7%	59,403.1	85,197.8	25,794.7	43.4%	5,710.1	7.2%	81,800.0
12.4	Mandatory social security payments	1000 AMD	1,939.1	5,438.9	3,499.8	180.5%	0.0	7,566.7	7,566.7	#DIV/0!	2,127.8	39.1%	8,500.0
12.5	Transportation costs and fuel	1000 AMD	26,776.0	28,711.5	1,935.5	7.2%	23,176.0	34,093.2	10,917.2	47.1%	5,381.7	18.7%	34,400.0
12.6	Banking, postal, telecommunication costs	1000 AMD	7,700.0	7,240.5	-459.5	-6.0%	6,330.0	7,303.1	973.1	15.4%	62.6	0.9%	7,400.0

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]			Planned
12.7	Expenses related to bank and other loans	1000 AMD		0.0	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0
12.8	Borrowings from other sources	1000 AMD		0.0	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0
12.9	Economic, representative and other expenses	1000 AMD	3,400.0	3,403.5	3.5	0.1%	4,990.0	3,924.5	-1,065.5	-21.4%	521.0	15.3%	4,000.0
12.10	Expenses related to the rental of immovable or movable property, including taxes	1000 AMD	7,180.0		-7,180.0	-100.0%	3,672.0		-3,672.0	-100.0%	0.0	0.0%	0.0
12.11	Electricity costs	1000 AMD	820,416.0	831,326.0	10,910.0	1.3%	931,500.0	1,010,624.3	79,124.3	8.5%	179,298.3	21.6%	1,019,100.0
12.12	Water abstraction costs	1000 AMD	1,818.0	1,414.9	-403.1	-22.2%	1,818.0	1,633.9	-184.1	-10.1%	219.0	15.5%	1,600.0
12.13	Reserve fund - co-financing of investment projects and fixed assets	1000 AMD		0.0	0.0	0.0%	15,000.0	0.0	-15,000.0	-100.0%	0.0	0.0%	0.0
12.14	Value added tax	1000 AMD	250.0	173.0	-77.0	-30.8%	1,200.0	180.8	-1,019.3	-84.9%	7.7	4.5%	200.0
12.15	Profit tax	1000 AMD		0.0	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0
12.16	Tax penalties and fines	1000 AMD		0.0	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0
12.17	Penalties related to electricity payments	1000 AMD		6,720.1	6,720.1		0.0	15,206.4	15,206.4		8,486.4	126.3%	15,300.0
12.18	Other expenses	1000 AMD		18,093.2	18,093.2			16,300.0	16,300.0		-1,793.2	-9.9%	16,400.0
13	Calculation or accounting of capital expenditure, including:	1000 AMD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13.1	Capital expenditure on maintenance of irrigation systems	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0
13.2	Capital costs of vehicle maintenance	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0
13.3	Costs of acquisition of fixed assets	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]			Planned
13.4	Other capital expenditures	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0
14	Total payments for expenses and payables	1000 AMD	1,304,337.9	1,320,416.2	16,078.3	1.2%	1,274,149.6	1,484,679.3	210,529.7	16.5%	164,263.1	12.4%	1,497,200.0
15	State financial support received	1000 AMD	863,469.2	972,660.3	109,191.1	12.6%	831,882.4	974,991.4	143,109.0	17.2%	2,331.1	0.2%	4,379,800.0
16	Debts of WUAs as of the last day of the reporting year	1000 AMD	599.5	2,206.8	1,607.3	268.1%	826,756.4	91,435.0	-735,321.4	-88.9%	89,228.2	4043.3%	188,535.0
17	Receivables of WUAs as of the last day of the reporting year	1000 AMD	190,247.4	209,216.9	18,969.5	10.0%	224,014.8	233,284.0	9,269.2	4.1%	24,067.1	11.5%	255,884.0
18	Financial gap of WUAs	1000 AMD	-52,480.2	78,835.0	131,315.2	-250.2%	-878,381.5	-133,431.1	744,950.4	-84.8%	-212,266.1	-269.3%	-27,298.1

Source: Analysis based on the data, provided by WUAs and the Water Committee, MTAI, 2023

Annex 3: Yerevan WUA - Planned/actual indicators for 2021-2022, forecasts for 2023

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]			Planned
1	Cadastral irrigable lands of the WUA service area	ha	7,862.3	7,862.3	0.0	0.0%	7,862.3	7,862.3	0.0	0.0%	0.0	0.0%	7,862.3
2	Declared irrigable lands in the WUA service area	ha	3,090.0	2,959.1	-130.9	-4.2%	3,400.0	2,967.2	-432.9	-12.7%	8.1	0.3%	3,000.0
3	Volume of irrigation water received (intake), including:	1000 m^3	34,600.0	29,737.6	4,862.4	-66.6%	40,000.0	31,807.1	8,192.9	-85.2%	2,069.5	7.0%	32,200.0
3.1	Obtaining purchased water, including:	1000 m^3	25,650.0	23,521.8	2,128.2	-7.6%	31,000.0	23,635.5	7,364.5	-50.2%	113.7	0.5%	23,900.0
3.1.1	a) by gravity	1000 m^3	22,650.0	20,458.6	2,191.4	-9.7%	27,600.0	21,149.1	6,450.9	-23.4%	690.5	3.4%	21,400.0
3.1.2	b) mechanically	1000 m^3	3,000.0	3,063.2	-63.2	2.1%	3,400.0	2,486.4	913.6	-26.9%	-576.8	-18.8%	2,500.0
3.2	Water from local sources, including:	1000 m^3	8,950.0	6,215.8	2,734.2	-59.1%	9,000.0	8,171.6	828.4	-35.0%	1,955.8	31.5%	8,300.0
3.2.1	a) by gravity	1000 m^3	1,300.0	934.9	365.1	-28.1%	1,500.0	1,050.8	449.2	-29.9%	115.9	12.4%	1,100.0
3.2.2	b) mechanically	1000 m^3	7,650.0	5,280.9	2,369.1	-31.0%	7,500.0	7,120.8	379.2	-5.1%	1,839.9	34.8%	7,200.0
4	Consumed electricity	1000 kWh	2,530.0	2,398.8	-131.2	-5.2%	3,200.0	2,571.0	-629.0	-19.7%	172.2	7.2%	2,600.0
5	Water supply by the WUA	1000 m^3	21,521.0	19,527.9	-1,993.1	-9.3%	25,040.0	19,880.8	-5,159.2	-20.6%	352.9	1.8%	20,100.0
6	ISF for water supplied by the WUA	AMD/m^3	11.00	11.00	0.00	0.0%	11.00	11.00	0.00	0.0%	0.0	0.0%	11.00
7	Self-cost of irrigation water supplied by WUAs to farmers, calculated with the sum of all current costs	AMD/m^3	18.38	19.40	1.03	5.6%	17.80	21.96	4.16	23.4%	2.6	13.2%	21.87
7.1	Self-cost of irrigation water supplied by WUAs to farmers, excluding electricity costs	AMD/m^3	13.50	13.96	0.46	3.4%	12.56	15.50	2.94	23.4%	1.5	11.0%	15.41
7.2	Self-cost of irrigation water supplied by WUAs to farmers,	AMD/m^3	15.71	16.57	0.86	5.5%	15.12	19.44	4.32	28.6%	2.9	17.3%	19.35

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator, %/1	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator, %/1			Planned
	excluding electricity costs												
8	Self-cost of irrigation water supplied by WUAs to farmers, excluding electricity costs	AMD/m^3	236,733.0	214,807.0	-21,926.0	-9.3%	275,440.0	218,127.5	-57,312.5	-20.8%	3,320.5	1.5%	221,100.0
9	Calculated membership fee	1000 AMD	10,745.0	2,959.1	-7,785.9	-72.5%	10,745.0	2,967.2	-7,777.8	-72.4%	8.1	0.3%	3,000.0
10	Collection of payments related to supplied irrigation water during the reporting period	1000 AMD	217,774.0	188,334.8	-29,439.2	-13.5%	302,000.0	200,191.1	-101,808.9	-33.7%	11,856.3	6.3%	202,000.0
11	Collection of membership fees during the reporting period	1000 AMD	9,800.0	5,935.4	-3,864.6	-39.4%	10,000.0	5,859.6	-4,140.4	-41.4%	-75.8	-1.3%	5,900.0
12	Calculation or accounting of current costs, including:	1000 AMD	395,474.0	378,871.1	-16,602.9	-4.2%	445,717.0	436,576.8	-9,140.2	-2.1%	57,705.7	15.2%	439,500.0
12.1	Spring preparations and current expenditures on fixed assets	1000 AMD	31,500.0	37,877.5	6,377.5	20.2%	55,000.0	45,102.1	-9,897.9	-18.0%	7,224.7	19.1%	45,600.0
12.2	Salary and other equivalent payments (subject to payment)	1000 AMD	135,770.9	117,700.8	-18,070.1	-13.3%	123,266.9	136,063.1	12,796.2	10.4%	18,362.3	15.6%	137,600.0
12.3	Income tax on salary and other equivalent payments	1000 AMD	41,758.1	37,377.7	-4,380.4	-10.5%	38,593.1	42,389.6	3,796.5	9.8%	5,011.9	13.4%	40,800.0
12.4	Mandatory social security payments	1000 AMD	1,550.0	1,018.4	-531.6	-34.3%	1,613.0	2,206.2	593.2	36.8%	1,187.7	116.6%	2,500.0
12.5	Transportation costs and fuel	1000 AMD	8,000.0	15,236.2	7,236.2	90.5%	18,500.0	20,704.8	2,204.8	11.9%	5,468.7	35.9%	20,900.0
12.6	Banking, postal, telecommunication costs	1000 AMD	4,500.0	1,444.1	-3,055.9	-67.9%	4,500.0	2,011.5	-2,488.5	-55.3%	567.4	39.3%	2,000.0

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]			Planned
12.7	Expenses related to bank and other loans	1000 AMD		0.0	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0
12.8	Borrowings from other sources	1000 AMD		0.0	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0
12.9	Economic, representative and other expenses	1000 AMD	10,000.0	417.4	-9,582.6	-95.8%	6,000.0	715.0	-5,285.0	-88.1%	297.6	71.3%	700.0
12.10	Expenses related to the rental of immovable or movable property, including taxes	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0
12.11	Electricity costs	1000 AMD	104,995.0	106,257.5	1,262.5	1.2%	131,200.0	128,417.6	-2,782.4	-2.1%	22,160.1	20.9%	129,800.0
12.12	Water abstraction costs	1000 AMD	57,400.0	55,284.2	-2,115.8	-3.7%	67,044.0	50,005.1	-17,038.9	-25.4%	-5,279.1	-9.5%	50,600.0
12.13	Reserve fund - co-financing of investment projects and fixed assets	1000 AMD		0.0	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0
12.14	Value added tax	1000 AMD		275.2	275.2		0.0	308.4	308.4		33.2	12.1%	300.0
12.15	Profit tax	1000 AMD		0.0	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0
12.16	Tax penalties and fines	1000 AMD		0.0	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0
12.17	Penalties related to electricity payments	1000 AMD		0.0	0.0	0.0%	0.0	1,685.6	1,685.6		1,685.6		1,700.0
12.18	Other expenses	1000 AMD		5,982.2	5,982.2			6,967.6	6,967.6		985.5	16.5%	7,000.0
13	Calculation or accounting of capital expenditure, including:	1000 AMD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13.1	Capital expenditure on maintenance of irrigation systems	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0
13.2	Capital costs of vehicle maintenance	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0
13.3	Costs of acquisition of fixed assets	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0
13.4	Other capital expenditures	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]			Planned
14	Total payments for expenses and payables	1000 AMD	402,475.9	365,757.4	-36,718.5	-9.1%	480,213.8	440,197.9	-40,015.9	-8.3%	74,440.5	20.4%	445,100.0
15	State financial support received	1000 AMD	149,927.4	181,509.5	31,582.1	21.1%	168,213.8	218,569.5	50,355.7	29.9%	37,060.0	20.4%	4,379,800.0
16	Debts of WUAs as of the last day of the reporting year	1000 AMD	0.0	16,731.6	16,731.6		166,065.9	12,010.0	-154,055.9	-92.8%	-4,721.6	-28.2%	6,410.0
17	Receivables of WUAs as of the last day of the reporting year	1000 AMD	670,003.8	964,868.9	294,865.1	44.0%	938,308.9	990,703.0	52,394.1	5.6%	25,834.1	2.7%	1,006,903.0
18	Financial gap of WUAs	1000 AMD	-24,974.5	-6,709.3	18,265.2	-73.1%	-166,065.9	-27,587.7	138,478.2	-83.4%	-20,878.4	311.2%	-17,148.5

Source: Analysis based on the data, provided by WUAs and the Water Committee, MTAI, 2023

Annex 4: Ejmiatsin WUA - Planned/actual indicators for 2021-2022, forecasts for 2023

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]			Planned
1	Cadastral irrigable lands of the WUA service area	ha	20,985.8	20,985.8	0.0	0.0%	20,985.8	20,985.8	0.0	0.0%	0.0	0.0%	20,985.8
2	Declared irrigable lands in the WUA service area	ha	8,300.0	7,580.5	-719.5	-8.7%	8,700.0	7,416.3	-1,283.7	-14.8%	-164.2	-2.2%	7,300.0
3	Volume of irrigation water received (intake), including:	1000 m^3	152,700.0	173,697.5	-20,997.5	51.0%	165,400.0	168,145.7	-2,745.7	10.0%	-5,551.8	-3.2%	165,500.0
3.1	Obtaining purchased water, including:	1000 m^3	107,500.0	112,455.9	-4,955.9	15.5%	119,300.0	107,086.1	12,213.9	-22.4%	-5,369.8	-4.8%	105,400.0
3.1.1	a) by gravity	1000 m^3	75,000.0	74,860.5	139.5	-0.2%	83,700.0	76,339.4	7,360.6	-8.8%	1,478.9	2.0%	75,100.0
3.1.2	b) mechanically	1000 m^3	32,500.0	37,595.4	-5,095.4	15.7%	35,600.0	30,746.7	4,853.3	-13.6%	-6,848.7	-18.2%	30,300.0
3.2	Water from local sources, including:	1000 m^3	45,200.0	61,241.6	-16,041.6	35.5%	46,100.0	61,059.6	-14,959.6	32.5%	-182.0	-0.3%	60,100.0
3.2.1	a) by gravity	1000 m^3			0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0
3.2.2	b) mechanically	1000 m^3	45,200.0	61,241.6	-16,041.6	35.5%	46,100.0	61,059.6	-14,959.6	32.5%	-182.0	-0.3%	60,100.0
4	Consumed electricity	1000 kWh	19,000.0	22,304.9	3,304.9	17.4%	21,800.0	23,407.9	1,607.9	7.4%	1,103.0	4.9%	23,000.0
5	Water supply by the WUA	1000 m^3	84,443.1	96,172.2	11,729.1	13.9%	91,466.0	93,320.8	1,854.8	2.0%	-2,851.4	-3.0%	91,900.0
6	ISF for water supplied by the WUA	AMD/m^3	11.00	11.00	0.00	0.0%	11.00	11.00	0.00	0.0%	0.0	0.0%	11.00
7	Self-cost of irrigation water supplied by WUAs to farmers, calculated with the sum of all current costs	AMD/m^3	20.16	22.12	1.96	9.7%	19.42	24.27	4.85	25.0%	2.2	9.8%	24.23
7.1	Self-cost of irrigation water supplied by WUAs to farmers, excluding electricity costs	AMD/m^3	11.34	11.92	0.58	5.1%	11.59	12.26	0.67	5.8%	0.3	2.9%	12.22

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]			Planned
7.2	Self-cost of irrigation water supplied by WUAs to farmers, excluding electricity costs	AMD/m^3	14.83	16.83	2.00	13.5%	14.01	19.65	5.64	40.3%	2.8	16.8%	19.61
8	Self-cost of irrigation water supplied by WUAs to farmers, excluding electricity costs	AMD/m^3	928,874.1	1,057,894.4	129,020.3	13.9%	1,006,126.0	1,026,529.2	20,403.2	2.0%	-31,365.2	-3.0%	1,010,900.0
9	Calculated membership fee	1000 AMD	7,200.0	7,580.5	380.5	5.3%	8,700.0	7,416.3	-1,283.7	-14.8%	-164.2	-2.2%	7,300.0
10	Collection of payments related to supplied irrigation water during the reporting period	1000 AMD	625,000.0	443,583.3	-181,416.7	-29.0%	1,068,790.5	437,853.4	-630,937.1	-59.0%	-5,729.9	-1.3%	431,000.0
11	Collection of membership fees during the reporting period	1000 AMD	3,000.0	1,302.1	-1,697.9	-56.6%	7,000.0	1,487.0	-5,513.0	-78.8%	184.9	14.2%	1,500.0
12	Calculation or accounting of current costs, including:	1000 AMD	1,702,287.3	2,126,960.5	424,673.2	24.9%	1,776,254.0	2,265,299.8	489,045.8	27.5%	138,339.3	6.5%	2,226,400.0
12.1	Spring preparations and current expenditures on fixed assets	1000 AMD	156,000.0	233,527.2	77,527.2	49.7%	170,000.0	279,510.7	109,510.7	64.4%	45,983.5	19.7%	275,100.0
12.2	Salary and other equivalent payments (subject to payment)	1000 AMD	238,500.6	251,377.8	12,877.2	5.4%	260,000.0	261,118.8	1,118.8	0.4%	9,741.0	3.9%	257,000.0
12.3	Income tax on salary and other equivalent payments	1000 AMD	74,684.8	84,340.4	9,655.6	12.9%	83,901.0	83,809.5	-91.5	-0.1%	-530.9	-0.6%	78,600.0

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]			Planned
12.4	Mandatory social security payments	1000 AMD	2,651.9	4,837.6	2,185.7	82.4%	4,864.0	5,958.9	1,094.9	22.5%	1,121.3	23.2%	6,500.0
12.5	Transportation costs and fuel	1000 AMD	22,500.0	22,733.4	233.4	1.0%	27,000.0	26,474.2	-525.8	-1.9%	3,740.8	16.5%	26,100.0
12.6	Banking, postal, telecommunication costs	1000 AMD	5,000.0	5,665.3	665.3	13.3%	6,000.0	4,837.8	-1,162.2	-19.4%	-827.5	-14.6%	4,800.0
12.7	Expenses related to bank and other loans	1000 AMD		0.0	0.0	0.0%	3,840.0	0.0	-3,840.0	-100.0%	0.0	0.0%	0.0
12.8	Borrowings from other sources	1000 AMD		0.0	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0
12.9	Economic, representative and other expenses	1000 AMD	5,000.0	3,039.8	-1,960.2	-39.2%	5,000.0	3,481.6	-1,518.4	-30.4%	441.8	14.5%	3,400.0
12.10	Expenses related to the rental of immovable or movable property, including taxes	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0
12.11	Electricity costs	1000 AMD	744,800.0	980,835.3	236,035.3	31.7%	716,000.0	1,120,883.8	404,883.8	56.5%	140,048.5	14.3%	1,103,300.0
12.12	Water abstraction costs	1000 AMD	450,150.0	508,711.3	58,561.3	13.0%	494,649.0	431,307.7	-63,341.3	-12.8%	-77,403.6	-15.2%	424,500.0
12.13	Reserve fund - co-financing of investment projects and fixed assets	1000 AMD	3,000.0	7,719.0	4,719.0	157.3%	5,000.0	6,143.1	1,143.1	22.9%	-1,575.9	-20.4%	6,000.0
12.14	Value added tax	1000 AMD		1,501.4	1,501.4		0.0	0.0	0.0	0.0%	-1,501.4	-100.0%	0.0
12.15	Profit tax	1000 AMD		7,554.3	7,554.3		0.0	0.0	0.0	0.0%	-7,554.3	-100.0%	0.0
12.16	Tax penalties and fines	1000 AMD		2,174.2	2,174.2		0.0	5,623.4	5,623.4		3,449.2	158.6%	5,500.0
12.17	Penalties related to electricity payments	1000 AMD		7,439.3	7,439.3		0.0	23,030.7	23,030.7		15,591.4	209.6%	22,700.0
12.18	Other expenses	1000 AMD		5,504.2	5,504.2			13,119.7	13,119.7		7,615.5	138.4%	12,900.0
13	Calculation or accounting of capital expenditure, including:	1000 AMD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]			Planned
13.1	Capital expenditure on maintenance of irrigation systems	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0
13.2	Capital costs of vehicle maintenance	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0
13.3	Costs of acquisition of fixed assets	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0
13.4	Other capital expenditures	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0
14	Total payments for expenses and payables	1000 AMD	1,702,287.3	1,955,391.5	253,104.2	14.9%	2,884,185.3	2,096,812.9	-787,372.4	-27.3%	141,421.4	7.2%	2,063,900.0
15	State financial support received	1000 AMD	1,047,594.0	1,527,727.9	480,133.9	45.8%	1,808,394.8	1,622,390.8	-186,004.0	-10.3%	94,662.9	6.2%	4,379,800.0
16	Debts of WUAs as of the last day of the reporting year	1000 AMD	620,950.7	759,066.8	138,116.1	22.2%	1,015,423.0	904,523.0	-110,900.0	-10.9%	145,456.2	19.2%	1,067,023.0
17	Receivables of WUAs as of the last day of the reporting year	1000 AMD	5,478,983.6	5,757,827.9	278,844.3	5.1%	5,695,163.4	6,350,514.0	655,350.6	11.5%	592,686.1	10.3%	6,936,214.0
18	Financial gap of WUAs	1000 AMD	-647,644.0	-741,844.9	-94,200.9	14.5%	-1,015,423.0	-939,604.7	75,818.3	-7.5%	-197,759.8	26.7%	-840,724.8

Source: Analysis based on the data, provided by WUAs and the Water Committee, MTAI, 2023

Annex 5: Kotayk WUA - Planned/actual indicators for 2021-2022, forecasts for 2023

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]			Planned
1	Cadastral irrigable lands of the WUA service area	ha	18,453.5	18,453.5	0.0	0.0%	18,453.5	18,453.5	0.0	0.0%	0.0	0.0%	18,453.5
2	Declared irrigable lands in the WUA service area	ha	9,000.0	7,209.2	-1,790.8	-19.9%	8,220.0	7,559.8	-660.2	-8.0%	350.6	4.9%	7,900.0
3	Volume of irrigation water received (intake), including:	1000 m^3	76,067.0	69,417.8	6,649.2	-92.5%	78,524.5	67,310.2	11,214.3	-64.0%	-2,107.6	-3.0%	70,400.0
3.1	Obtaining purchased water, including:	1000 m^3	70,957.0	65,288.4	5,668.6	-54.8%	74,031.0	62,817.0	11,214.0	-69.8%	-2,471.4	-3.8%	65,700.0
3.1.1	a) by gravity	1000 m^3	68,942.0	64,239.5	4,702.5	-6.8%	69,177.7	60,758.5	8,419.2	-12.2%	-3,481.0	-5.4%	63,500.0
3.1.2	b) mechanically	1000 m^3	2,015.0	1,048.9	966.1	-47.9%	4,853.3	2,058.5	2,794.8	-57.6%	1,009.6	96.3%	2,200.0
3.2	Water from local sources, including:	1000 m^3	5,110.0	4,129.4	980.6	-37.7%	4,493.5	4,493.2	0.3	5.8%	363.8	8.8%	4,700.0
3.2.1	a) by gravity	1000 m^3	2,707.0	2,048.5	658.5	-24.3%	2,707.0	2,403.0	304.0	-11.2%	354.5	17.3%	2,500.0
3.2.2	b) mechanically	1000 m^3	2,403.0	2,080.9	322.1	-13.4%	1,786.5	2,090.2	-303.7	17.0%	9.3	0.4%	2,200.0
4	Consumed electricity	1000 kWh	5,000.0	4,820.5	-179.5	-3.6%	4,800.0	4,299.3	-500.7	-10.4%	-521.2	-10.8%	4,500.0
5	Water supply by the WUA	1000 m^3	44,879.5	38,636.0	-6,243.5	-13.9%	43,504.5	40,008.2	-3,496.3	-8.0%	1,372.2	3.6%	41,800.0
6	ISF for water supplied by the WUA	AMD/m^3	11.00	11.00	0.00	0.0%	11.00	11.00	0.00	0.0%	0.0	0.0%	11.00
7	Self-cost of irrigation water supplied by WUAs to farmers, calculated with the sum of all current costs	AMD/m^3	16.71	19.83	3.12	18.7%	19.51	22.43	2.92	15.0%	2.6	13.1%	22.35
7.1	Self-cost of irrigation water supplied by WUAs to farmers, excluding electricity costs	AMD/m^3	12.03	14.40	2.37	19.7%	14.88	16.24	1.37	9.2%	1.8	12.8%	16.17

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]			Planned
7.2	Self-cost of irrigation water supplied by WUAs to farmers, excluding electricity costs	AMD/m^3	14.64	17.83	3.20	21.8%	17.36	20.56	3.21	18.5%	2.7	15.3%	20.49
8	Self-cost of irrigation water supplied by WUAs to farmers, excluding electricity costs	AMD/m^3	456,564.0	413,018.9	-43,545.1	-9.5%	429,581.0	426,165.5	-3,415.5	-0.8%	13,146.6	3.2%	459,800.0
9	Calculated membership fee	1000 AMD	17,800.0	22,839.0	5,039.0	28.3%	20,858.0	17,100.0	-3,758.0	-18.0%	-5,739.0	-25.1%	17,900.0
10	Collection of payments related to supplied irrigation water during the reporting period	1000 AMD	426,133.1	374,010.0	-52,123.1	-12.2%	464,768.0	407,538.9	-57,229.1	-12.3%	33,528.9	9.0%	426,000.0
11	Collection of membership fees during the reporting period	1000 AMD	3,794.8	13,605.4	9,810.6	258.5%	21,205.7	17,835.2	-3,370.5	-15.9%	4,229.8	31.1%	18,600.0
12	Calculation or accounting of current costs, including:	1000 AMD	749,720.3	766,005.9	16,285.6	2.2%	848,741.9	897,222.7	48,480.8	5.7%	131,216.8	17.1%	934,400.0
12.1	Spring preparations and current expenditures on fixed assets	1000 AMD	85,000.0	74,055.3	-10,944.7	-12.9%	135,000.0	97,397.5	-37,602.5	-27.9%	23,342.2	31.5%	101,800.0
12.2	Salary and other equivalent payments (subject to payment)	1000 AMD	231,784.3	251,859.6	20,075.3	8.7%	237,751.8	291,085.0	53,333.2	22.4%	39,225.4	15.6%	304,200.0
12.3	Income tax on salary and other equivalent payments	1000 AMD	66,240.5	76,676.9	10,436.4	15.8%	75,047.7	83,735.2	8,687.5	11.6%	7,058.3	9.2%	83,300.0
12.4	Mandatory social security payments	1000 AMD	10,951.5	5,053.3	-5,898.2	-53.9%	10,207.4	7,695.6	-2,511.8	-24.6%	2,642.3	52.3%	8,900.0
12.5	Transportation costs and fuel	1000 AMD	27,000.0	40,533.1	13,533.1	50.1%	54,600.0	46,011.3	-8,588.7	-15.7%	5,478.2	13.5%	48,100.0

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]			Planned
12.6	Banking, postal, telecommunication costs	1000 AMD	8,000.0	8,532.5	532.5	6.7%	5,300.0	6,194.0	894.0	16.9%	-2,338.5	-27.4%	6,500.0
12.7	Expenses related to bank and other loans	1000 AMD		0.0	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0
12.8	Borrowings from other sources	1000 AMD		0.0	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0
12.9	Economic, representative and other expenses	1000 AMD	6,500.0	5,429.3	-1,070.7	-16.5%	5,800.0	11,719.7	5,919.7	102.1%	6,290.4	115.9%	12,200.0
12.10	Expenses related to the rental of immovable or movable property, including taxes	1000 AMD	1,100.0		-1,100.0	-100.0%	1,500.0		-1,500.0	-100.0%	0.0	0.0%	0.0
12.11	Electricity costs	1000 AMD	209,950.0	209,780.0	-170.0	-0.1%	201,552.0	247,386.6	45,834.6	22.7%	37,606.6	17.9%	258,500.0
12.12	Water abstraction costs	1000 AMD	92,844.0	76,966.7	-15,877.3	-17.1%	93,583.0	74,517.8	-19,065.2	-20.4%	-2,448.9	-3.2%	77,900.0
12.13	Reserve fund - co-financing of investment projects and fixed assets	1000 AMD	10,000.0	8,354.6	-1,645.4	-16.5%	25,000.0	16,155.7	-8,844.3	-35.4%	7,801.1	93.4%	16,900.0
12.14	Value added tax	1000 AMD	350.0	0.0	-350.0	-100.0%	0.0	246.5	246.5		246.5		300.0
12.15	Profit tax	1000 AMD		0.0	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0
12.16	Tax penalties and fines	1000 AMD		16.9	16.9		1,700.0	0.0	-1,700.0	-100.0%	-16.9	-100.0%	0.0
12.17	Penalties related to electricity payments	1000 AMD		1,705.8	1,705.8		1,700.0	3,443.1	1,743.1	102.5%	1,737.3	101.8%	3,600.0
12.18	Other expenses	1000 AMD		7,041.9	7,041.9			11,634.7	11,634.7		4,592.8	65.2%	12,200.0
13	Calculation or accounting of capital expenditure, including:	1000 AMD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13.1	Capital expenditure on maintenance of irrigation systems	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]			Planned
13.2	Capital costs of vehicle maintenance	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0
13.3	Costs of acquisition of fixed assets	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0
13.4	Other capital expenditures	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0
14	Total payments for expenses and payables	1000 AMD	852,879.1	771,647.5	-81,231.6	-9.5%	1,093,937.5	915,565.2	-178,372.3	-16.3%	143,917.7	18.7%	956,800.0
15	State financial support received	1000 AMD	396,294.2	403,243.2	6,949.0	1.8%	597,157.7	452,134.5	-145,023.2	-24.3%	48,891.2	12.1%	4,379,800.0
16	Debts of WUAs as of the last day of the reporting year	1000 AMD	20,572.2	87,669.4	67,097.2	326.2%	146,020.9	66,458.0	-79,562.9	-54.5%	-21,211.4	-24.2%	44,058.0
17	Receivables of WUAs as of the last day of the reporting year	1000 AMD	619,959.4	657,959.4	38,000.0	6.1%	622,772.4	707,729.0	84,956.6	13.6%	49,769.6	7.6%	740,829.0
18	Financial gap of WUAs	1000 AMD	-47,229.2	-68,458.3	-21,229.1	44.9%	-156,827.0	-104,514.6	52,312.4	-33.4%	-36,056.4	52.7%	-86,486.4

Source: Analysis based on the data, provided by WUAs and the Water Committee, MTAI, 2023

Annex 6: Aragatsotn WUA - Planned/actual indicators for 2021-2022, forecasts for 2023

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]			Planned
1	Cadastral irrigable lands of the WUA service area	ha	18,976.7	18,976.7	0.0	0.0%	18,976.7	18,976.7	0.0	0.0%	0.0	0.0%	18,976.7
2	Declared irrigable lands in the WUA service area	ha	8,751.0	9,141.8	390.8	4.5%	9,140.0	9,327.2	187.2	2.0%	185.4	2.0%	9,500.0
3	Volume of irrigation water received (intake), including:	1000 m^3	105,500.0	101,387.0	4,113.0	-52.5%	117,305.0	109,442.3	7,862.7	#DIV/0!	8,055.3	7.9%	111,500.0
3.1	Obtaining purchased water, including:	1000 m^3	105,000.0	100,705.0	4,295.0	-4.1%	116,000.0	107,959.0	8,041.0	-6.9%	7,254.0	7.2%	110,000.0
3.1.1	a) by gravity	1000 m^3	105,000.0	100,705.0	4,295.0	-4.1%	116,000.0	107,959.0	8,041.0	-6.9%	7,254.0	7.2%	110,000.0
3.1.2	b) mechanically	1000 m^3		0.0	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0
3.2	Water from local sources, including:	1000 m^3	500.0	682.0	-182.0	-48.4%	1,305.0	1,483.3	-178.3	#DIV/0!	801.3	117.5%	1,500.0
3.2.1	a) by gravity	1000 m^3	450.0	682.0	-232.0	51.6%	1,305.0	966.2	338.8	-26.0%	284.2	41.7%	1,000.0
3.2.2	b) mechanically	1000 m^3	50.0		50.0	-100.0%	0.0	517.1	-517.1	#DIV/0!	517.1	#DIV/0!	500.0
4	Consumed electricity	1000 kWh	2,300.0	2,158.1	-141.9	-6.2%	2,600.0	2,444.0	-156.0	-6.0%	285.9	13.2%	2,500.0
5	Water supply by the WUA	1000 m^3	55,598.0	55,115.4	-482.6	-0.9%	59,000.0	56,684.0	-2,316.0	-3.9%	1,568.6	2.8%	57,700.0
6	ISF for water supplied by the WUA	AMD/m^3	11.00	11.00	0.00	0.0%	11.00	11.00	0.00	0.0%	0.0	0.0%	11.00
7	Self-cost of irrigation water supplied by WUAs to farmers, calculated with the sum of all current costs	AMD/m^3	11.42	10.39	-1.04	-9.1%	12.18	11.75	-0.43	-3.5%	1.4	13.1%	11.71
7.1	Self-cost of irrigation water supplied by WUAs to farmers, excluding electricity costs	AMD/m^3	9.73	8.76	-0.96	-9.9%	10.38	9.72	-0.65	-6.3%	1.0	10.9%	9.68

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]			Planned
7.2	Self-cost of irrigation water supplied by WUAs to farmers, excluding electricity costs	AMD/m^3	9.52	8.54	-0.97	-10.2%	10.19	9.83	-0.36	-3.6%	1.3	15.1%	9.78
8	Self-cost of irrigation water supplied by WUAs to farmers, excluding electricity costs	AMD/m^3	611,578.0	606,265.0	-5,313.0	-0.9%	649,000.0	623,524.0	-25,476.0	-3.9%	17,259.0	2.8%	634,700.0
9	Calculated membership fee	1000 AMD	8,304.5	9,141.8	837.3	10.1%	9,140.0	9,327.2	187.2	2.0%	185.4	2.0%	9,500.0
10	Collection of payments related to supplied irrigation water during the reporting period	1000 AMD	555,300.0	382,346.0	-172,954.0	-31.1%	568,800.0	411,666.1	-157,133.9	-27.6%	29,320.1	7.7%	419,000.0
11	Collection of membership fees during the reporting period	1000 AMD	7,600.0	0.0	-7,600.0	-100.0%	13,700.0	2,724.8	-10,975.2	-80.1%	2,724.8	#DIV/0!	2,800.0
12	Calculation or accounting of current costs, including:	1000 AMD	635,065.0	572,495.4	-62,569.6	-9.9%	718,478.0	666,108.6	-52,369.4	-7.3%	93,613.2	16.4%	675,500.0
12.1	Spring preparations and current expenditures on fixed assets	1000 AMD	37,195.0	37,205.0	10.0	0.0%	93,300.0	50,047.3	-43,252.7	-46.4%	12,842.3	34.5%	51,000.0
12.2	Salary and other equivalent payments (subject to payment)	1000 AMD	219,095.0	219,563.0	468.0	0.2%	195,512.0	238,271.5	42,759.5	21.9%	18,708.5	8.5%	242,700.0
12.3	Income tax on salary and other equivalent payments	1000 AMD	57,565.0	66,846.5	9,281.5	16.1%	62,608.0	73,484.0	10,876.0	17.4%	6,637.5	9.9%	71,300.0
12.4	Mandatory social security payments	1000 AMD	5,600.0	3,537.0	-2,063.0	-36.8%	2,600.0	5,393.2	2,793.2	107.4%	1,856.2	52.5%	6,100.0
12.5	Transportation costs and fuel	1000 AMD	55,200.0	35,494.0	-19,706.0	-35.7%	55,200.0	42,443.0	-12,757.0	-23.1%	6,949.0	19.6%	43,200.0

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]			Planned
12.6	Banking, postal, telecommunication costs	1000 AMD	7,600.0	5,657.2	-1,942.8	-25.6%	8,200.0	5,866.8	-2,333.2	-28.5%	209.6	3.7%	6,000.0
12.7	Expenses related to bank and other loans	1000 AMD		0.0	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0
12.8	Borrowings from other sources	1000 AMD		0.0	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0
12.9	Economic, representative and other expenses	1000 AMD	13,368.0	6,542.0	-6,826.0	-51.1%	13,120.0	5,774.0	-7,346.0	-56.0%	-768.0	-11.7%	5,900.0
12.10	Expenses related to the rental of immovable or movable property, including taxes	1000 AMD	2,200.0		-2,200.0	-100.0%	1,240.0		-1,240.0	-100.0%	0.0	0.0%	0.0
12.11	Electricity costs	1000 AMD	94,300.0	89,444.6	-4,855.4	-5.1%	106,340.0	114,913.0	8,573.0	8.1%	25,468.4	28.5%	117,000.0
12.12	Water abstraction costs	1000 AMD	106,050.0	101,716.3	-4,333.7	-4.1%	117,160.0	109,041.8	-8,118.2	-6.9%	7,325.5	7.2%	111,100.0
12.13	Reserve fund - co-financing of investment projects and fixed assets	1000 AMD	35,500.0	1,776.0	-33,724.0	-95.0%	21,000.0	9,958.0	-11,042.0	-52.6%	8,182.0	460.7%	10,100.0
12.14	Value added tax	1000 AMD	192.0	393.0	201.0	104.7%	0.0	410.0	410.0		17.0	4.3%	400.0
12.15	Profit tax	1000 AMD		2,876.0	2,876.0		40,198.0	0.0	-40,198.0	-100.0%	-2,876.0	-100.0%	0.0
12.16	Tax penalties and fines	1000 AMD	1,200.0	809.0	-391.0	-32.6%	2,000.0	8,872.0	6,872.0	343.6%	8,063.0	996.7%	9,000.0
12.17	Penalties related to electricity payments	1000 AMD		622.8	622.8		0.0	1,143.0	1,143.0		520.2	83.5%	1,200.0
12.18	Other expenses	1000 AMD		13.0	13.0			491.0	491.0		478.0	3676.9%	500.0
13	Calculation or accounting of capital expenditure, including:	1000 AMD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13.1	Capital expenditure on maintenance of irrigation systems	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]			Planned
13.2	Capital costs of vehicle maintenance	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0
13.3	Costs of acquisition of fixed assets	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0
13.4	Other capital expenditures	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0
14	Total payments for expenses and payables	1000 AMD	741,518.0	631,113.3	-110,404.7	-14.9%	961,877.0	655,166.3	-306,710.7	-31.9%	24,053.0	3.8%	667,300.0
15	State financial support received	1000 AMD	175,822.0	231,979.9	56,157.9	31.9%	378,214.0	214,447.4	-163,766.6	-43.3%	-17,532.5	-7.6%	4,379,800.0
16	Debts of WUAs as of the last day of the reporting year	1000 AMD	54,523.0	114,743.8	60,220.8	110.5%	101,773.0	125,092.0	23,319.0	22.9%	10,348.2	9.0%	133,292.0
17	Receivables of WUAs as of the last day of the reporting year	1000 AMD	1,840,730.0	2,064,649.0	223,919.0	12.2%	2,144,849.0	2,290,458.0	145,609.0	6.8%	225,809.0	10.9%	2,512,858.0
18	Financial gap of WUAs	1000 AMD	-57,319.0	-131,531.2	-74,212.2	129.5%	-102,936.0	-151,420.0	-48,484.0	47.1%	-19,888.8	15.1%	-141,475.6

Source: Analysis based on the data, provided by WUAs and the Water Committee, MTAI, 2023

Annex 7: Armavir WUA - Planned/actual indicators for 2021-2022, forecasts for 2023

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]			Planned
1	Cadastral irrigable lands of the WUA service area	ha	26,619.1	26,619.1	0.0	0.0%	26,619.1	26,619.1	0.0	0.0%	0.0	0.0%	26,619.1
2	Declared irrigable lands in the WUA service area	ha	14,500.0	14,291.3	-208.7	-1.4%	14,500.0	14,863.5	363.5	2.5%	572.2	4.0%	15,500.0
3	Volume of irrigation water received (intake), including:	1000 m^3	225,000.0	172,756.4	52,243.6	2.1%	225,000.0	215,104.1	9,895.9	0.9%	42,347.7	24.5%	224,300.0
3.1	Obtaining purchased water, including:	1000 m^3	180,000.0	109,093.0	70,907.0	-39.4%	180,000.0	166,271.0	13,729.0	-7.6%	57,178.0	52.4%	173,400.0
3.1.1	a) by gravity	1000 m^3	180,000.0	109,093.0	70,907.0	-39.4%	180,000.0	166,271.0	13,729.0	-7.6%	57,178.0	52.4%	173,400.0
3.1.2	b) mechanically	1000 m^3			0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0
3.2	Water from local sources, including:	1000 m^3	45,000.0	63,663.4	-18,663.4	41.5%	45,000.0	48,833.1	-3,833.1	8.5%	-14,830.3	-23.3%	50,900.0
3.2.1	a) by gravity	1000 m^3			0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0
3.2.2	b) mechanically	1000 m^3	45,000.0	63,663.4	-18,663.4	41.5%	45,000.0	48,833.1	-3,833.1	8.5%	-14,830.3	-23.3%	50,900.0
4	Consumed electricity	1000 kWh	20,500.0	25,484.0	4,984.0	24.3%	20,500.0	20,493.1	-6.9	0.0%	-4,990.9	-19.6%	21,400.0
5	Water supply by the WUA	1000 m^3	125,100.0	96,050.4	-29,049.6	-23.2%	125,100.0	119,597.9	-5,502.1	-4.4%	23,547.5	24.5%	124,700.0
6	ISF for water supplied by the WUA	AMD/m^3	11.00	11.00	0.00	0.0%	11.00	11.00	0.00	0.0%	0.0	0.0%	11.00
7	Self-cost of irrigation water supplied by WUAs to farmers, calculated with the sum of all current costs	AMD/m^3	14.41	20.89	6.48	45.0%	18.35	16.96	-1.39	-7.6%	-3.9	-18.8%	16.93
7.1	Self-cost of irrigation water supplied by WUAs to farmers, excluding electricity costs	AMD/m^3	7.85	9.45	1.60	20.3%	11.60	8.65	-2.95	-25.4%	-0.8	-8.4%	8.62
7.2	Self-cost of irrigation water supplied by WUAs to farmers,	AMD/m^3	14.41	19.39	4.99	34.6%	16.90	15.48	-1.42	-8.4%	-3.9	-20.2%	15.45

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]			Planned
	excluding electricity costs												
8	Self-cost of irrigation water supplied by WUAs to farmers, excluding electricity costs	AMD/m^3	1,376,100.0	1,056,554.7	-319,545.3	-23.2%	1,376,100.0	1,315,576.5	-60,523.5	-4.4%	259,021.8	24.5%	1,371,700.0
9	Calculated membership fee	1000 AMD	13,785.0	10,140.0	-3,645.0	-26.4%	14,500.0	14,863.5	363.5	2.5%	4,723.5	46.6%	15,500.0
10	Collection of payments related to supplied irrigation water during the reporting period	1000 AMD	951,000.0	681,511.9	-269,488.1	-28.3%	1,050,500.0	763,278.4	-287,221.6	-27.3%	81,766.5	12.0%	796,000.0
11	Collection of membership fees during the reporting period	1000 AMD	15,785.0	10,140.0	-5,645.0	-35.8%	27,712.0	13,400.0	-14,312.0	-51.6%	3,260.0	32.1%	14,000.0
12	Calculation or accounting of current costs, including:	1000 AMD	1,802,185.0	2,006,527.5	204,342.5	11.3%	2,295,960.1	2,028,411.5	-267,548.6	-11.7%	21,884.0	1.1%	2,111,200.0
12.1	Spring preparations and current expenditures on fixed assets	1000 AMD	125,100.0	96,050.4	-29,049.6	-23.2%	125,100.0	119,597.9	-5,502.1	-4.4%	23,547.5	24.5%	124,700.0
12.2	Salary and other equivalent payments (subject to payment)	1000 AMD	11.00	11.00	0.00	0.0%	11.00	11.00	0.00	0.0%	0.0	0.0%	11.00
12.3	Income tax on salary and other equivalent payments	1000 AMD	14.41	20.89	6.48	45.0%	18.35	16.96	-1.39	-7.6%	-3.9	-18.8%	16.93
12.4	Mandatory social security payments	1000 AMD	7.85	9.45	1.60	20.3%	11.60	8.65	-2.95	-25.4%	-0.8	-8.4%	8.62
12.5	Transportation costs and fuel	1000 AMD	14.41	19.39	4.99	34.6%	16.90	15.48	-1.42	-8.4%	-3.9	-20.2%	15.45
12.6	Banking, postal, telecommunication costs	1000 AMD	1,376,100.0	1,056,554.7	-319,545.3	-23.2%	1,376,100.0	1,315,576.5	-60,523.5	-4.4%	259,021.8	24.5%	1,371,700.0

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]			Planned
12.7	Expenses related to bank and other loans	1000 AMD	13,785.0	10,140.0	-3,645.0	-26.4%	14,500.0	14,863.5	363.5	2.5%	4,723.5	46.6%	15,500.0
12.8	Borrowings from other sources	1000 AMD	951,000.0	681,511.9	-269,488.1	-28.3%	1,050,500.0	763,278.4	-287,221.6	-27.3%	81,766.5	12.0%	796,000.0
12.9	Economic, representative and other expenses	1000 AMD	15,785.0	10,140.0	-5,645.0	-35.8%	27,712.0	13,400.0	-14,312.0	-51.6%	3,260.0	32.1%	14,000.0
12.10	Expenses related to the rental of immovable or movable property, including taxes	1000 AMD	1,802,185.0	2,006,527.5	204,342.5	11.3%	2,295,960.1	2,028,411.5	-267,548.6	-11.7%	21,884.0	1.1%	2,111,200.0
12.11	Electricity costs	1000 AMD	125,100.0	96,050.4	-29,049.6	-23.2%	125,100.0	119,597.9	-5,502.1	-4.4%	23,547.5	24.5%	124,700.0
12.12	Water abstraction costs	1000 AMD	11.00	11.00	0.00	0.0%	11.00	11.00	0.00	0.0%	0.0	0.0%	11.00
12.13	Reserve fund - co-financing of investment projects and fixed assets	1000 AMD	14.41	20.89	6.48	45.0%	18.35	16.96	-1.39	-7.6%	-3.9	-18.8%	16.93
12.14	Value added tax	1000 AMD	7.85	9.45	1.60	20.3%	11.60	8.65	-2.95	-25.4%	-0.8	-8.4%	8.62
12.15	Profit tax	1000 AMD	14.41	19.39	4.99	34.6%	16.90	15.48	-1.42	-8.4%	-3.9	-20.2%	15.45
12.16	Tax penalties and fines	1000 AMD	1,376,100.0	1,056,554.7	-319,545.3	-23.2%	1,376,100.0	1,315,576.5	-60,523.5	-4.4%	259,021.8	24.5%	1,371,700.0
12.17	Penalties related to electricity payments	1000 AMD	13,785.0	10,140.0	-3,645.0	-26.4%	14,500.0	14,863.5	363.5	2.5%	4,723.5	46.6%	15,500.0
12.18	Other expenses	1000 AMD	951,000.0	681,511.9	-269,488.1	-28.3%	1,050,500.0	763,278.4	-287,221.6	-27.3%	81,766.5	12.0%	796,000.0
13	Calculation or accounting of capital expenditure, including:	1000 AMD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13.1	Capital expenditure on maintenance of irrigation systems	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0
13.2	Capital costs of vehicle maintenance	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0
13.3	Costs of acquisition of fixed assets	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]			Planned
13.4	Other capital expenditures	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0
14	Total payments for expenses and payables	1000 AMD	1,892,840.5	1,986,453.1	93,612.6	4.9%	3,994,986.3	1,988,006.5	-2,006,979.8	-50.2%	1,553.4	0.1%	2,073,100.0
15	State financial support received	1000 AMD	911,978.0	1,268,941.0	356,963.0	39.1%	2,871,774.3	1,230,231.3	-1,641,543.0	-57.2%	-38,709.7	-3.1%	4,379,800.0
16	Debts of WUAs as of the last day of the reporting year	1000 AMD	44,495.0	151,358.8	106,863.8	240.2%	69,834.0	183,170.0	113,336.0	162.3%	31,811.2	21.0%	221,270.0
17	Receivables of WUAs as of the last day of the reporting year	1000 AMD	7,256,504.8	7,193,923.0	-62,581.8	-0.9%	7,519,523.0	7,731,816.0	212,293.0	2.8%	537,893.0	7.5%	8,309,016.0
18	Financial gap of WUAs	1000 AMD	-58,572.5	-177,219.0	-118,646.5	202.6%	-114,834.0	-164,266.8	-49,432.8	43.0%	12,952.2	-7.3%	-170,742.9

Source: Analysis based on the data, provided by WUAs and the Water Committee, MTAI, 2023

Annex 8: Shenik WUA - Planned/actual indicators for 2021-2022, forecasts for 2023

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]			Planned
1	Cadastral irrigable lands of the WUA service area	ha	14,135.7	14,135.7	0.0	0.0%	14,135.7	14,135.7	0.0	0.0%	0.0	0.0%	14,135.7
2	Declared irrigable lands in the WUA service area	ha	6,996.0	7,694.5	698.5	10.0%	7,653.0	8,858.9	1,205.9	15.8%	1,164.4	15.1%	10,200.0
3	Volume of irrigation water received (intake), including:	1000 m^3	127,099.0	109,398.9	17,700.1	-11.2%	127,700.0	135,958.9	-8,258.9	-29.0%	26,560.0	24.3%	156,600.0
3.1	Obtaining purchased water, including:	1000 m^3	124,999.0	107,235.0	17,764.0	-14.2%	125,000.0	134,242.6	-9,242.6	7.4%	27,007.6	25.2%	154,600.0
3.1.1	a) by gravity	1000 m^3	124,999.0	107,235.0	17,764.0	-14.2%	125,000.0	134,242.6	-9,242.6	7.4%	27,007.6	25.2%	154,600.0
3.1.2	b) mechanically	1000 m^3			0.0	0.0%			0.0	0.0%	0.0	0.0%	0.0
3.2	Water from local sources, including:	1000 m^3	2,100.0	2,163.9	-63.9	3.0%	2,700.0	1,716.3	983.7	-36.4%	-447.6	-20.7%	2,000.0
3.2.1	a) by gravity	1000 m^3			0.0	0.0%			0.0	0.0%	0.0	0.0%	0.0
3.2.2	b) mechanically	1000 m^3	2,100.0	2,163.9	-63.9	3.0%	2,700.0	1,716.3	983.7	-36.4%	-447.6	-20.7%	2,000.0
4	Consumed electricity	1000 kWh	3,780.0	4,865.4	1,085.4	28.7%	4,915.0	4,881.3	-33.7	-0.7%	15.9	0.3%	5,600.0
5	Water supply by the WUA	1000 m^3	71,938.0	59,833.5	-12,104.5	-16.8%	72,278.0	71,922.3	-355.7	-0.5%	12,088.8	20.2%	82,800.0
6	ISF for water supplied by the WUA	AMD/m^3	11.00	11.00	0.00	0.0%	11.00	11.00	0.00	0.0%	0.0	0.0%	11.00
7	Self-cost of irrigation water supplied by WUAs to farmers, calculated with the sum of all current costs	AMD/m^3	11.14	11.27	0.13	1.2%	10.35	11.80	1.45	14.0%	0.5	4.7%	11.77
7.1	Self-cost of irrigation water supplied by WUAs to farmers, excluding electricity costs	AMD/m^3	9.05	7.81	-1.24	-13.7%	7.75	8.54	0.80	10.3%	0.7	9.3%	8.51
7.2	Self-cost of irrigation water supplied by	AMD/m^3	9.38	9.50	0.12	1.3%	8.72	9.92	1.20	13.8%	0.4	4.4%	9.89

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]			Planned
	WUAs to farmers, excluding electricity costs												
8	Self-cost of irrigation water supplied by WUAs to farmers, excluding electricity costs	AMD/m^3	801,077.7	658,168.5	-142,909.2	-17.8%	795,058.0	791,144.9	-3,913.1	-0.5%	132,976.4	20.2%	910,800.0
9	Calculated membership fee	1000 AMD	6,996.0	7,694.5	698.5	10.0%	7,653.0	8,858.9	1,205.9	15.8%	1,164.4	15.1%	10,200.0
10	Collection of payments related to supplied irrigation water during the reporting period	1000 AMD	522,326.6	455,710.3	-66,616.3	-12.8%	638,140.0	506,436.4	-131,703.6	-20.6%	50,726.1	11.1%	583,000.0
11	Collection of membership fees during the reporting period	1000 AMD	8,000.0	4,374.1	-3,625.9	-45.3%	10,135.8	6,022.4	-4,113.4	-40.6%	1,648.3	37.7%	6,900.0
12	Calculation or accounting of current costs, including:	1000 AMD	801,077.7	674,036.5	-127,041.2	-15.9%	748,424.4	848,670.9	100,246.5	13.4%	174,634.4	25.9%	974,300.0
12.1	Spring preparations and current expenditures on fixed assets	1000 AMD	86,766.3	94,543.9	7,777.6	9.0%	110,947.5	125,351.3	14,403.8	13.0%	30,807.4	32.6%	144,300.0
12.2	Salary and other equivalent payments (subject to payment)	1000 AMD	164,355.4	164,340.6	-14.8	0.0%	142,682.0	197,353.6	54,671.6	38.3%	33,013.0	20.1%	227,200.0
12.3	Income tax on salary and other equivalent payments	1000 AMD	47,000.0	50,494.7	3,494.7	7.4%	47,620.0	59,856.7	12,236.7	25.7%	9,362.0	18.5%	65,600.0
12.4	Mandatory social security payments	1000 AMD	6,363.8	2,869.1	-3,494.7	-54.9%	2,000.0	4,806.7	2,806.7	140.3%	1,937.6	67.5%	6,100.0
12.5	Transportation costs and fuel	1000 AMD	28,000.0	37,992.1	9,992.1	35.7%	38,000.0	48,402.3	10,402.3	27.4%	10,410.2	27.4%	55,700.0

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]			Planned
12.6	Banking, postal, telecommunication costs	1000 AMD	1,000.5	1,130.9	130.4	13.0%	3,500.0	1,462.4	-2,037.6	-58.2%	331.5	29.3%	1,700.0
12.7	Expenses related to bank and other loans	1000 AMD		0.0	0.0	0.0%	9,000.0	0.0	-9,000.0	-100.0%	0.0	0.0%	0.0
12.8	Borrowings from other sources	1000 AMD		0.0	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0
12.9	Economic, representative and other expenses	1000 AMD	5,726.0	3,978.7	-1,747.3	-30.5%	4,500.0	5,230.3	730.3	16.2%	1,251.6	31.5%	6,000.0
12.10	Expenses related to the rental of immovable or movable property, including taxes	1000 AMD	5,550.7		-5,550.7	-100.0%	4,500.0		-4,500.0	-100.0%	0.0	0.0%	0.0
12.11	Electricity costs	1000 AMD	150,066.0	206,493.0	56,427.0	37.6%	188,550.0	234,180.1	45,630.1	24.2%	27,687.1	13.4%	269,600.0
12.12	Water abstraction costs	1000 AMD	126,249.0	105,739.3	-20,509.7	-16.2%	118,170.0	135,230.6	17,060.6	14.4%	29,491.3	27.9%	155,700.0
12.13	Reserve fund - co-financing of investment projects and fixed assets	1000 AMD	180,000.0	136.9	-179,863.1	-99.9%	70,000.0	0.0	-70,000.0	-100.0%	-136.9	-100.0%	0.0
12.14	Value added tax	1000 AMD		0.0	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0
12.15	Profit tax	1000 AMD		0.0	0.0	0.0%	5,814.9	24,369.9	18,555.0	319.1%	24,369.9		28,100.0
12.16	Tax penalties and fines	1000 AMD		0.0	0.0	0.0%	3,140.0	5,769.2	2,629.2	83.7%	5,769.2		6,600.0
12.17	Penalties related to electricity payments	1000 AMD		1,019.2	1,019.2		0.0	1,785.0	1,785.0		765.8	75.1%	2,100.0
12.18	Other expenses	1000 AMD		5,298.1	5,298.1			4,872.8	4,872.8		-425.3	-8.0%	5,600.0
13	Calculation or accounting of capital expenditure, including:	1000 AMD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13.1	Capital expenditure on maintenance of irrigation systems	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]			Planned
13.2	Capital costs of vehicle maintenance	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0
13.3	Costs of acquisition of fixed assets	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0
13.4	Other capital expenditures	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0
14	Total payments for expenses and payables	1000 AMD	682,268.0	747,390.9	65,122.9	9.5%	986,743.3	829,291.3	-157,452.0	-16.0%	81,900.4	11.0%	954,800.0
15	State financial support received	1000 AMD	135,268.0	316,145.6	180,877.6	133.7%	338,436.1	301,346.9	-37,089.2	-11.0%	-14,798.7	-4.7%	4,379,800.0
16	Debts of WUAs as of the last day of the reporting year	1000 AMD	286,158.2	114,848.7	-171,309.5	-59.9%	363,169.5	126,685.0	-236,484.5	-65.1%	11,836.3	10.3%	146,185.0
17	Receivables of WUAs as of the last day of the reporting year	1000 AMD	4,342,535.0	3,697,907.0	-644,628.0	-14.8%	3,854,825.0	4,016,407.0	161,582.0	4.2%	318,500.0	8.6%	4,347,507.0
18	Financial gap of WUAs	1000 AMD	-302,831.6	-86,009.6	216,822.0	-71.6%	-363,200.9	-142,170.6	221,030.3	-60.9%	-56,161.0	65.3%	-114,090.1

Source: Analysis based on the data, provided by WUAs and the Water Committee, MTAI, 2023

Annex 9: Talin WUA - Planned/actual indicators for 2021-2022, forecasts for 2023

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]			Planned
1	Cadastral irrigable lands of the WUA service area	ha	19,498.1	19,498.1	0.0	0.0%	19,498.1	19,498.1	0.0	0.0%	0.0	0.0%	19,498.1
2	Declared irrigable lands in the WUA service area	ha	4,850.0	4,936.3	86.3	1.8%	5,200.0	5,090.5	-109.5	-2.1%	154.2	3.1%	5,200.0
3	Volume of irrigation water received (intake), including:	1000 m^3	69,000.0	83,212.0	-14,212.0	-65.8%	84,000.0	93,772.0	-9,772.0	-73.0%	10,560.0	12.7%	95,800.0
3.1	Obtaining purchased water, including:	1000 m^3	68,000.0	83,092.0	-15,092.0	22.2%	82,500.0	93,568.0	-11,068.0	13.4%	10,476.0	12.6%	95,600.0
3.1.1	a) by gravity	1000 m^3	68,000.0	83,092.0	-15,092.0	22.2%	82,500.0	93,568.0	-11,068.0	13.4%	10,476.0	12.6%	95,600.0
3.1.2	b) mechanically	1000 m^3			0.0	0.0%			0.0	0.0%	0.0	0.0%	0.0
3.2	Water from local sources, including:	1000 m^3	1,000.0	120.0	880.0	-88.0%	1,500.0	204.0	1,296.0	-86.4%	84.0	70.0%	200.0
3.2.1	a) by gravity	1000 m^3	1,000.0	120.0	880.0	-88.0%	1,500.0	204.0	1,296.0	-86.4%	84.0	70.0%	200.0
3.2.2	b) mechanically	1000 m^3			0.0	0.0%			0.0	0.0%	0.0	0.0%	0.0
4	Consumed electricity	1000 kWh	12,000.0	10,821.6	-1,178.4	-9.8%	12,000.0	12,965.0	965.0	8.0%	2,143.4	19.8%	13,200.0
5	Water supply by the WUA	1000 m^3	32,430.0	27,894.1	-4,535.9	-14.0%	39,480.0	31,502.0	-7,978.0	-20.2%	3,607.9	12.9%	32,200.0
6	ISF for water supplied by the WUA	AMD/m^3	11.00	11.00	0.00	0.0%	11.00	11.00	0.00	0.0%	0.0	0.0%	11.00
7	Self-cost of irrigation water supplied by WUAs to farmers, calculated with the sum of all current costs	AMD/m^3	24.56	30.61	6.05	24.6%	20.43	32.98	12.55	61.4%	2.4	7.7%	32.90
7.1	Self-cost of irrigation water supplied by WUAs to farmers, excluding electricity costs	AMD/m^3	9.76	14.23	4.47	45.8%	8.27	13.49	5.21	63.0%	-0.7	-5.2%	13.42

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]			Planned
7.2	Self-cost of irrigation water supplied by WUAs to farmers, excluding electricity costs	AMD/m^3	22.44	27.61	5.16	23.0%	19.32	29.98	10.66	55.2%	2.4	8.6%	29.90
8	Self-cost of irrigation water supplied by WUAs to farmers, excluding electricity costs	AMD/m^3	356,730.0	306,835.5	-49,894.5	-14.0%	434,280.0	346,522.0	-87,758.0	-20.2%	39,686.5	12.9%	354,200.0
9	Calculated membership fee	1000 AMD	4,850.0	4,936.3	86.3	1.8%	5,200.0	5,090.5	-109.5	-2.1%	154.2	3.1%	5,200.0
10	Collection of payments related to supplied irrigation water during the reporting period	1000 AMD	265,000.0	203,474.5	-61,525.5	-23.2%	282,239.0	226,210.0	-56,029.0	-19.9%	22,735.5	11.2%	231,000.0
11	Collection of membership fees during the reporting period	1000 AMD	6,510.0	4,004.0	-2,506.0	-38.5%	3,650.0	4,270.0	620.0	17.0%	266.0	6.6%	4,400.0
12	Calculation or accounting of current costs, including:	1000 AMD	796,565.0	853,977.9	57,412.9	7.2%	806,620.0	1,038,814.3	232,194.3	28.8%	184,836.4	21.6%	1,059,400.0
12.1	Spring preparations and current expenditures on fixed assets	1000 AMD	42,300.0	52,868.5	10,568.5	25.0%	95,000.0	81,867.8	-13,132.2	-13.8%	28,999.3	54.9%	83,600.0
12.2	Salary and other equivalent payments (subject to payment)	1000 AMD	112,800.0	118,235.4	5,435.4	4.8%	105,000.0	145,291.6	40,291.6	38.4%	27,056.2	22.9%	148,400.0
12.3	Income tax on salary and other equivalent payments	1000 AMD	50,693.0	38,454.0	-12,239.0	-24.1%	34,060.0	44,919.3	10,859.3	31.9%	6,465.2	16.8%	43,700.0

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]			Planned
12.4	Mandatory social security payments	1000 AMD	2,500.0	2,296.8	-203.2	-8.1%	2,400.0	3,721.6	1,321.6	55.1%	1,424.8	62.0%	4,200.0
12.5	Transportation costs and fuel	1000 AMD	24,000.0	25,867.2	1,867.2	7.8%	25,000.0	29,243.3	4,243.3	17.0%	3,376.2	13.1%	29,900.0
12.6	Banking, postal, telecommunication costs	1000 AMD	3,500.0	3,404.8	-95.2	-2.7%	4,000.0	3,397.8	-602.2	-15.1%	-7.0	-0.2%	3,500.0
12.7	Expenses related to bank and other loans	1000 AMD		0.0	0.0	0.0%	2,500.0	0.0	-2,500.0	-100.0%	0.0	0.0%	0.0
12.8	Borrowings from other sources	1000 AMD		0.0	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0
12.9	Economic, representative and other expenses	1000 AMD	6,680.0	891.9	-5,788.1	-86.6%	3,500.0	2,664.1	-835.9	-23.9%	1,772.2	198.7%	2,700.0
12.10	Expenses related to the rental of immovable or movable property, including taxes	1000 AMD	5,412.0		-5,412.0	-100.0%	5,100.0		-5,100.0	-100.0%	0.0	0.0%	0.0
12.11	Electricity costs	1000 AMD	480,000.0	457,016.3	-22,983.7	-4.8%	480,000.0	613,991.0	133,991.0	27.9%	156,974.8	34.3%	627,200.0
12.12	Water abstraction costs	1000 AMD	68,680.0	83,926.0	15,246.0	22.2%	44,020.0	94,506.9	50,486.9	114.7%	10,580.9	12.6%	96,500.0
12.13	Reserve fund - co-financing of investment projects and fixed assets	1000 AMD		561.3	561.3		5,500.0	3,200.0	-2,300.0	-41.8%	2,638.7	470.1%	3,300.0
12.14	Value added tax	1000 AMD		0.0	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0
12.15	Profit tax	1000 AMD		47,835.1	47,835.1		540.0	0.0	-540.0	-100.0%	-47,835.1	-100.0%	0.0
12.16	Tax penalties and fines	1000 AMD		12,742.9	12,742.9		0.0	167.2	167.2		-12,575.7	-98.7%	200.0
12.17	Penalties related to electricity payments	1000 AMD		3,077.5	3,077.5		0.0	8,923.6	8,923.6		5,846.1	190.0%	9,100.0
12.18	Other expenses	1000 AMD		6,800.1	6,800.1			6,920.0	6,920.0		119.9	1.8%	7,100.0
13	Calculation or accounting of capital expenditure, including:	1000 AMD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]			Planned
13.1	Capital expenditure on maintenance of irrigation systems	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0
13.2	Capital costs of vehicle maintenance	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0
13.3	Costs of acquisition of fixed assets	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0
13.4	Other capital expenditures	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0
14	Total payments for expenses and payables	1000 AMD	825,044.0	837,646.1	12,602.1	1.5%	1,269,741.0	1,011,342.0	-258,399.0	-20.4%	173,695.9	20.7%	1,033,100.0
15	State financial support received	1000 AMD	550,570.0	618,302.4	67,732.4	12.3%	983,852.0	776,511.4	-207,340.6	-21.1%	158,209.0	25.6%	4,379,800.0
16	Debts of WUAs as of the last day of the reporting year	1000 AMD	4,699.0	44,833.5	40,134.5	854.1%	0.0	67,695.0	67,695.0		22,861.5	51.0%	93,995.0
17	Receivables of WUAs as of the last day of the reporting year	1000 AMD	463,403.0	540,495.0	77,092.0	16.6%	692,536.0	664,018.0	-28,518.0	-4.1%	123,523.0	22.9%	788,018.0
18	Financial gap of WUAs	1000 AMD	-7,663.0	-56,698.7	-49,035.7	639.9%	0.0	-72,045.6	-72,045.6		-15,346.9	27.1%	-64,372.2

Source: Analysis based on the data, provided by WUAs and the Water Committee, MTAI, 2023

Annex 10: Shenik WUA - Planned/actual indicators for 2021-2022, forecasts for 2023

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]			Planned
1	Cadastral irrigable lands of the WUA service area	ha	19,498.1	19,498.1	0.0	0.0%	19,498.1	19,498.1	0.0	0.0%	0.0	0.0%	19,498.1
2	Declared irrigable lands in the WUA service area	ha	5,500.0	5,860.5	360.5	6.6%	6,000.0	6,051.4	51.4	0.9%	190.9	3.3%	6,200.0
3	Volume of irrigation water received (intake), including:	1000 m^3	30,000.0	45,521.3	-15,521.3	-236.0%	37,694.0	46,907.0	-9,213.0	-6.1%	1,385.7	3.0%	48,000.0
3.1	Obtaining purchased water, including:	1000 m^3	28,000.0	45,521.3	-17,521.3	-36.0%	30,594.3	43,157.0	-12,562.7	41.1%	-2,364.3	-5.2%	44,200.0
3.1.1	a) by gravity	1000 m^3	27,750.0	45,521.3	-17,771.3	64.0%	30,594.3	43,157.0	-12,562.7	41.1%	-2,364.3	-5.2%	44,200.0
3.1.2	b) mechanically	1000 m^3	250.0		250.0	-100.0%			0.0	0.0%	0.0	0.0%	0.0
3.2	Water from local sources, including:	1000 m^3	2,000.0	0.0	2,000.0	-200.0%	7,099.7	3,750.0	3,349.7	-47.2%	3,750.0		3,800.0
3.2.1	a) by gravity	1000 m^3	1,200.0		1,200.0	-100.0%	7,099.7	3,750.0	3,349.7	-47.2%	3,750.0		3,800.0
3.2.2	b) mechanically	1000 m^3	800.0		800.0	-100.0%			0.0	0.0%	0.0	0.0%	0.0
4	Consumed electricity	1000 kWh	1,189.0	1,317.1	128.1	10.8%	1,300.0	1,500.0	200.0	15.4%	182.9	13.9%	1,500.0
5	Water supply by the WUA	1000 m^3	14,700.0	14,998.1	298.1	2.0%	19,205.0	15,184.0	-4,021.0	-20.9%	185.9	1.2%	15,600.0
6	ISF for water supplied by the WUA	AMD/m^3	11.00	11.00	0.00	0.0%	11.00	11.00	0.00	0.0%	0.0	0.0%	11.00
7	Self-cost of irrigation water supplied by WUAs to farmers, calculated with the sum of all current costs	AMD/m^3	18.85	21.02	2.17	11.5%	15.64	23.72	8.08	51.6%	2.7	12.9%	23.58
7.1	Self-cost of irrigation water supplied by WUAs to farmers, excluding electricity costs	AMD/m^3	15.45	17.23	1.78	11.5%	12.80	19.14	6.35	49.6%	1.9	11.1%	19.01

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]			Planned
7.2	Self-cost of irrigation water supplied by WUAs to farmers, excluding electricity costs	AMD/m^3	16.92	17.98	1.05	6.2%	14.61	20.85	6.24	42.7%	2.9	16.0%	20.71
8	Self-cost of irrigation water supplied by WUAs to farmers, excluding electricity costs	AMD/m^3	161,700.0	164,979.0	3,279.0	2.0%	211,255.0	167,024.0	-44,231.0	-20.9%	2,045.0	1.2%	171,600.0
9	Calculated membership fee	1000 AMD	5,500.0	5,860.5	360.5	6.6%	6,020.0	6,051.4	31.4	0.5%	190.9	3.3%	6,200.0
10	Collection of payments related to supplied irrigation water during the reporting period	1000 AMD	128,000.0	140,657.6	12,657.6	9.9%	125,000.0	146,991.0	21,991.0	17.6%	6,333.4	4.5%	151,000.0
11	Collection of membership fees during the reporting period	1000 AMD	6,536.0	4,437.2	-2,098.8	-32.1%	3,740.0	6,011.0	2,271.0	60.7%	1,573.8	35.5%	6,200.0
12	Calculation or accounting of current costs, including:	1000 AMD	277,071.7	315,289.4	38,217.7	13.8%	300,452.2	360,215.7	59,763.5	19.9%	44,926.3	14.2%	367,800.0
12.1	Spring preparations and current expenditures on fixed assets	1000 AMD	38,014.0	49,914.6	11,900.6	31.3%	72,576.0	70,344.0	-2,232.0	-3.1%	20,429.4	40.9%	72,100.0
12.2	Salary and other equivalent payments (subject to payment)	1000 AMD	109,256.9	100,259.0	-8,997.9	-8.2%	100,723.4	109,756.2	9,032.8	9.0%	9,497.2	9.5%	112,500.0
12.3	Income tax on salary and other equivalent payments	1000 AMD	33,025.1	36,859.7	3,834.6	11.6%	32,560.0	35,256.5	2,696.5	8.3%	-1,603.2	-4.3%	34,400.0
12.4	Mandatory social security payments	1000 AMD	1,310.0	2,362.6	1,052.6	80.4%	0.0	2,861.6	2,861.6		499.0	21.1%	3,300.0
12.5	Transportation costs and fuel	1000 AMD	12,107.6	13,840.5	1,732.9	14.3%	17,837.8	19,877.7	2,039.9	11.4%	6,037.2	43.6%	20,400.0

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]			Planned
12.6	Banking, postal, telecommunication costs	1000 AMD	1,750.0	1,715.7	-34.3	-2.0%	0.0	1,679.4	1,679.4		-36.3	-2.1%	1,700.0
12.7	Expenses related to bank and other loans	1000 AMD		0.0	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0
12.8	Borrowings from other sources	1000 AMD		0.0	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0
12.9	Economic, representative and other expenses	1000 AMD	2,526.8	927.9	-1,598.9	-63.3%	1,670.0	1,567.6	-102.4	-6.1%	639.7	68.9%	1,600.0
12.10	Expenses related to the rental of immovable or movable property, including taxes	1000 AMD	792.0		-792.0	-100.0%	400.0		-400.0	-100.0%	0.0	0.0%	0.0
12.11	Electricity costs	1000 AMD	50,009.3	56,883.9	6,874.6	13.7%	54,678.0	69,557.0	14,879.0	27.2%	12,673.1	22.3%	71,300.0
12.12	Water abstraction costs	1000 AMD	28,280.0	45,676.8	17,396.8	61.5%	19,835.0	43,590.7	23,755.7	119.8%	-2,086.1	-4.6%	44,700.0
12.13	Reserve fund - co-financing of investment projects and fixed assets	1000 AMD		0.0	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0
12.14	Value added tax	1000 AMD		156.8	156.8		0.0	134.6	134.6		-22.2	-14.2%	100.0
12.15	Profit tax	1000 AMD		0.0	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0
12.16	Tax penalties and fines	1000 AMD		0.0	0.0	0.0%	172.0	0.0	-172.0	-100.0%	0.0	0.0%	0.0
12.17	Penalties related to electricity payments	1000 AMD		606.0	606.0		0.0	682.2	682.2		76.2	12.6%	700.0
12.18	Other expenses	1000 AMD		6,085.9	6,085.9			4,908.2	4,908.2		-1,177.7	-19.4%	5,000.0
13	Calculation or accounting of capital expenditure, including:	1000 AMD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13.1	Capital expenditure on maintenance of irrigation systems	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0
13.2	Capital costs of vehicle maintenance	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]			Planned
13.3	Costs of acquisition of fixed assets	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0
13.4	Other capital expenditures	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0
14	Total payments for expenses and payables	1000 AMD	326,258.9	311,143.6	-15,115.3	-4.6%	472,207.7	371,862.3	-100,345.4	-21.3%	60,718.7	19.5%	381,000.0
15	State financial support received	1000 AMD	183,554.9	185,205.0	1,650.1	0.9%	342,432.7	213,779.8	-128,652.9	-37.6%	28,574.8	15.4%	4,379,800.0
16	Debts of WUAs as of the last day of the reporting year	1000 AMD	1,299.2	50,685.5	49,386.3	3801.3%	0.0	43,024.0	43,024.0		-7,661.5	-15.1%	29,824.0
17	Receivables of WUAs as of the last day of the reporting year	1000 AMD	123,513.1	118,100.8	-5,412.3	-4.4%	204,355.8	185,757.0	-18,598.8	-9.1%	67,656.2	57.3%	206,357.0
18	Financial gap of WUAs	1000 AMD	-9,467.2	-31,529.3	-22,062.1	233.0%	-1,035.0	-48,104.5	-47,069.5	4547.8%	-16,575.2	52.6%	-39,816.9

Source: Analysis based on the data, provided by WUAs and the Water Committee, MTAI, 2023

Annex 11: Gegharkunik WUA - Planned/actual indicators for 2021-2022, forecasts for 2023

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]			Planned
1	Cadastral irrigable lands of the WUA service area	ha	8,630.3	8,630.3	0.0	0.0%	8,630.3	8,630.3	0.0	0.0%	0.0	0.0%	8,630.3
2	Declared irrigable lands in the WUA service area	ha	2,170.0	1,970.5	-199.5	-9.2%	2,170.0	1,988.6	-181.4	-8.4%	18.1	0.9%	2,000.0
3	Volume of irrigation water received (intake), including:	1000 m^3	12,300.0	14,029.4	-1,729.4	-5.2%	14,200.0	15,763.1	-1,563.1	-11.8%	1,733.7	12.4%	15,900.0
3.1	Obtaining purchased water, including:	1000 m^3	0.0	0.0	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0
3.1.1	a) by gravity	1000 m^3			0.0	0.0%			0.0	0.0%	0.0	0.0%	0.0
3.1.2	b) mechanically	1000 m^3			0.0	0.0%			0.0	0.0%	0.0	0.0%	0.0
3.2	Water from local sources, including:	1000 m^3	12,300.0	14,029.4	-1,729.4	-5.2%	14,200.0	15,763.1	-1,563.1	-11.8%	1,733.7	12.4%	15,900.0
3.2.1	a) by gravity	1000 m^3	2,300.0	1,628.0	672.0	-29.2%	2,300.0	1,590.0	710.0	-30.9%	-38.0	-2.3%	1,600.0
3.2.2	b) mechanically	1000 m^3	10,000.0	12,401.4	-2,401.4	24.0%	11,900.0	14,173.1	-2,273.1	19.1%	1,771.7	14.3%	14,300.0
4	Consumed electricity	1000 kWh	6,700.0	8,354.2	1,654.2	24.7%	8,000.0	9,475.1	1,475.1	18.4%	1,120.9	13.4%	9,500.0
5	Water supply by the WUA	1000 m^3	7,134.0	8,275.4	1,141.4	16.0%	8,236.0	9,352.0	1,116.0	13.6%	1,076.6	13.0%	9,400.0
6	ISF for water supplied by the WUA	AMD/m^3	11.00	11.00	0.00	0.0%	11.00	11.00	0.00	0.0%	0.0	0.0%	11.00
7	Self-cost of irrigation water supplied by WUAs to farmers, calculated with the sum of all current costs	AMD/m^3	69.09	69.75	0.66	1.0%	63.11	72.31	9.20	14.6%	2.6	3.7%	72.21
7.1	Self-cost of irrigation water supplied by WUAs to farmers, excluding electricity costs	AMD/m^3	29.84	24.35	-5.49	-18.4%	23.38	22.65	-0.73	-3.1%	-1.7	-7.0%	22.52
7.2	Self-cost of irrigation water supplied by WUAs to farmers,	AMD/m^3	69.09	69.75	0.66	1.0%	63.11	72.31	9.20	14.6%	2.6	3.7%	72.21

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]			Planned
	excluding electricity costs												
8	Self-cost of irrigation water supplied by WUAs to farmers, excluding electricity costs	AMD/m^3	78,474.0	91,029.2	12,555.2	16.0%	90,596.0	102,872.0	12,276.0	13.6%	11,842.8	13.0%	103,400.0
9	Calculated membership fee	1000 AMD	2,170.0	1,970.5	-199.5	-9.2%	2,170.0	1,988.6	-181.4	-8.4%	18.1	0.9%	2,000.0
10	Collection of payments related to supplied irrigation water during the reporting period	1000 AMD	71,703.0	81,732.5	10,029.5	14.0%	93,259.0	93,641.0	382.0	0.4%	11,908.5	14.6%	94,000.0
11	Collection of membership fees during the reporting period	1000 AMD	1,800.0	630.0	-1,170.0	-65.0%	3,000.0	803.0	-2,197.0	-73.2%	173.0	27.5%	800.0
12	Calculation or accounting of current costs, including:	1000 AMD	492,906.7	577,209.2	84,302.5	17.1%	519,794.9	676,252.7	156,457.8	30.1%	99,043.5	17.2%	678,800.0
12.1	Spring preparations and current expenditures on fixed assets	1000 AMD	45,000.0	40,478.4	-4,521.6	-10.0%	65,204.9	45,666.7	-19,538.2	-30.0%	5,188.3	12.8%	45,900.0
12.2	Salary and other equivalent payments (subject to payment)	1000 AMD	115,725.9	108,915.1	-6,810.8	-5.9%	85,399.1	113,858.6	28,459.5	33.3%	4,943.5	4.5%	114,500.0
12.3	Income tax on salary and other equivalent payments	1000 AMD	34,518.3	34,564.7	46.4	0.1%	27,170.9	34,355.0	7,184.1	26.4%	-209.7	-0.6%	32,900.0
12.4	Mandatory social security payments	1000 AMD	2,662.5	1,359.1	-1,303.4	-49.0%	2,300.0	1,935.3	-364.7	-15.9%	576.2	42.4%	2,200.0
12.5	Transportation costs and fuel	1000 AMD	6,000.0	4,482.0	-1,518.0	-25.3%	7,000.0	4,634.5	-2,365.5	-33.8%	152.5	3.4%	4,700.0
12.6	Banking, postal, telecommunication costs	1000 AMD	900.0	739.3	-160.7	-17.9%	1,720.0	807.9	-912.1	-53.0%	68.6	9.3%	800.0

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]			Planned
12.7	Expenses related to bank and other loans	1000 AMD		0.0	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0
12.8	Borrowings from other sources	1000 AMD		0.0	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0
12.9	Economic, representative and other expenses	1000 AMD	7,300.0	4,988.2	-2,311.8	-31.7%	3,000.0	3,880.6	880.6	29.4%	-1,107.6	-22.2%	3,900.0
12.10	Expenses related to the rental of immovable or movable property, including taxes	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0
12.11	Electricity costs	1000 AMD	280,000.0	375,696.8	95,696.8	34.2%	327,200.0	464,417.1	137,217.1	41.9%	88,720.3	23.6%	467,100.0
12.12	Water abstraction costs	1000 AMD		0.0	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0
12.13	Reserve fund - co-financing of investment projects and fixed assets	1000 AMD		0.0	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0
12.14	Value added tax	1000 AMD		0.0	0.0	0.0%	800.0	0.0	-800.0	-100.0%	0.0	0.0%	0.0
12.15	Profit tax	1000 AMD		0.0	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0
12.16	Tax penalties and fines	1000 AMD		279.1	279.1		0.0	649.9	649.9		370.8	132.9%	700.0
12.17	Penalties related to electricity payments	1000 AMD		3,274.1	3,274.1		0.0	4,297.0	4,297.0		1,022.9	31.2%	4,300.0
12.18	Other expenses	1000 AMD	800.0	2,432.4	1,632.4	204.1%		1,750.1	1,750.1		-682.3	-28.1%	1,800.0
13	Calculation or accounting of capital expenditure, including:	1000 AMD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13.1	Capital expenditure on maintenance of irrigation systems	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0
13.2	Capital costs of vehicle maintenance	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0
13.3	Costs of acquisition of fixed assets	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]			Planned
13.4	Other capital expenditures	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0
14	Total payments for expenses and payables	1000 AMD	529,257.2	582,519.4	53,262.2	10.1%	513,513.8	674,331.5	160,817.7	31.3%	91,812.1	15.8%	678,200.0
15	State financial support received	1000 AMD	453,747.7	552,997.3	99,249.6	21.9%	417,254.8	568,340.4	151,085.6	36.2%	15,343.1	2.8%	4,379,800.0
16	Debts of WUAs as of the last day of the reporting year	1000 AMD	0.0	26,425.9	26,425.9		482,189.4	24,418.0	-457,771.4	-94.9%	-2,007.9	-7.6%	25,018.0
17	Receivables of WUAs as of the last day of the reporting year	1000 AMD	124,482.3	129,099.4	4,617.1	3.7%	126,436.4	135,460.0	9,023.6	7.1%	6,360.6	4.9%	146,060.0
18	Financial gap of WUAs	1000 AMD	-2,006.5	26,414.5	28,421.0	-1416.4%	-482,189.4	-35,965.1	446,224.3	-92.5%	-62,379.6	-236.2%	-4,775.3

Source: Analysis based on the data, provided by WUAs and the Water Committee, MTAI, 2023

Annex 12: Tavush WUA - Planned/actual indicators for 2021-2022, forecasts for 2023

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]			Planned
1	Cadastral irrigable lands of the WUA service area	ha	6,364.4	6,364.4	0.0	0.0%	6,364.4	6,364.4	0.0	0.0%	0.0	0.0%	6,364.4
2	Declared irrigable lands in the WUA service area	ha	3,700.0	3,401.3	-298.7	-8.1%	3,820.0	3,573.8	-246.2	-6.4%	172.5	5.1%	3,800.0
3	Volume of irrigation water received (intake), including:	1000 m^3	12,065.4	12,115.2	-49.8	1.5%	14,416.4	14,413.7	2.7	-2.4%	2,298.5	19.0%	15,300.0
3.1	Obtaining purchased water, including:	1000 m^3	0.0	0.0	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0
3.1.1	a) by gravity	1000 m^3			0.0	0.0%			0.0	0.0%	0.0	0.0%	0.0
3.1.2	b) mechanically	1000 m^3			0.0	0.0%			0.0	0.0%	0.0	0.0%	0.0
3.2	Water from local sources, including:	1000 m^3	12,065.4	12,115.2	-49.8	1.5%	14,416.4	14,413.7	2.7	-2.4%	2,298.5	19.0%	15,300.0
3.2.1	a) by gravity	1000 m^3	6,098.7	4,149.0	1,949.7	-32.0%	6,786.8	5,344.2	1,442.6	-21.3%	1,195.2	28.8%	5,700.0
3.2.2	b) mechanically	1000 m^3	5,966.7	7,966.2	-1,999.5	33.5%	7,629.6	9,069.5	-1,439.9	18.9%	1,103.3	13.8%	9,600.0
4	Consumed electricity	1000 kWh	5,340.2	7,219.0	1,878.8	35.2%	6,370.0	8,023.5	1,653.5	26.0%	804.5	11.1%	8,500.0
5	Water supply by the WUA	1000 m^3	5,340.2	7,616.2	2,276.0	42.6%	9,254.1	9,492.6	238.5	2.6%	1,876.4	24.6%	10,100.0
6	ISF for water supplied by the WUA	AMD/m^3	11.00	11.00	0.00	0.0%	11.00	11.00	0.00	0.0%	0.0	0.0%	11.00
7	Self-cost of irrigation water supplied by WUAs to farmers, calculated with the sum of all current costs	AMD/m^3	77.32	71.24	-6.08	-7.9%	51.54	74.06	22.51	43.7%	2.8	4.0%	73.82
7.1	Self-cost of irrigation water supplied by WUAs to farmers,	AMD/m^3	38.37	31.78	-6.59	-17.2%	23.36	34.31	10.95	46.9%	2.5	8.0%	34.10

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]			Planned
	excluding electricity costs												
7.2	Self-cost of irrigation water supplied by WUAs to farmers, excluding electricity costs	AMD/m^3	77.32	71.24	-6.08	-7.9%	51.54	74.06	22.51	43.7%	2.8	4.0%	73.82
8	Self-cost of irrigation water supplied by WUAs to farmers, excluding electricity costs	AMD/m^3	86,268.0	83,777.1	-2,490.9	-2.9%	101,795.1	104,269.6	2,474.5	2.4%	20,492.5	24.5%	111,100.0
9	Calculated membership fee	1000 AMD	3,700.0	3,401.3	-298.7	-8.1%	3,820.0	3,573.8	-246.2	-6.4%	172.5	5.1%	3,800.0
10	Collection of payments related to supplied irrigation water during the reporting period	1000 AMD	91,268.0	72,416.2	-18,851.8	-20.7%	109,395.0	99,260.0	-10,135.0	-9.3%	26,843.8	37.1%	106,000.0
11	Collection of membership fees during the reporting period	1000 AMD	5,500.0	1,791.4	-3,708.6	-67.4%	4,620.0	2,045.5	-2,574.5	-55.7%	254.1	14.2%	2,200.0
12	Calculation or accounting of current costs, including:	1000 AMD	412,925.0	542,576.7	129,651.7	31.4%	476,995.1	702,975.5	225,980.4	47.4%	160,398.8	29.6%	745,600.0
12.1	Spring preparations and current expenditures on fixed assets	1000 AMD	40,000.0	46,463.4	6,463.4	16.2%	53,578.1	86,969.6	33,391.5	62.3%	40,506.2	87.2%	92,500.0
12.2	Salary and other equivalent payments (subject to payment)	1000 AMD	116,524.0	120,334.2	3,810.2	3.3%	107,765.1	143,352.8	35,587.7	33.0%	23,018.6	19.1%	152,400.0
12.3	Income tax on salary and other	1000 AMD	33,973.3	38,824.9	4,851.6	14.3%	31,364.9	45,956.4	14,591.5	46.5%	7,131.5	18.4%	46,500.0

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]			Planned
	equivalent payments												
12.4	Mandatory social security payments	1000 AMD	3,926.7	2,047.4	-1,879.3	-47.9%	2,100.0	3,090.6	990.6	47.2%	1,043.2	51.0%	3,700.0
12.5	Transportation costs and fuel	1000 AMD	7,000.0	20,479.5	13,479.5	192.6%	15,000.0	27,298.6	12,298.6	82.0%	6,819.1	33.3%	29,000.0
12.6	Banking, postal, telecommunication costs	1000 AMD	1,140.0	981.3	-158.7	-13.9%	1,000.0	1,883.8	883.8	88.4%	902.5	92.0%	2,000.0
12.7	Expenses related to bank and other loans	1000 AMD		0.0	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0
12.8	Borrowings from other sources	1000 AMD		0.0	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0
12.9	Economic, representative and other expenses	1000 AMD	2,360.0	4,098.0	1,738.0	73.6%	5,000.0	5,374.7	374.7	7.5%	1,276.7	31.2%	5,700.0
12.10	Expenses related to the rental of immovable or movable property, including taxes	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0
12.11	Electricity costs	1000 AMD	208,001.0	300,542.6	92,541.6	44.5%	260,852.0	377,286.3	116,434.3	44.6%	76,743.7	25.5%	401,200.0
12.12	Water abstraction costs	1000 AMD		0.0	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0
12.13	Reserve fund - co-financing of investment projects and fixed assets	1000 AMD		4,810.0	4,810.0		0.0	0.0	0.0	0.0%	-4,810.0	-100.0%	0.0
12.14	Value added tax	1000 AMD		244.3	244.3		235.0	281.4	46.4	19.7%	37.1	15.2%	300.0
12.15	Profit tax	1000 AMD		0.0	0.0	0.0%	100.0	0.0	-100.0	-100.0%	0.0	0.0%	0.0
12.16	Tax penalties and fines	1000 AMD		107.7	107.7		0.0	342.2	342.2		234.5	217.7%	400.0
12.17	Penalties related to electricity payments	1000 AMD		2,410.1	2,410.1		0.0	5,611.7	5,611.7		3,201.6	132.8%	6,000.0
12.18	Other expenses	1000 AMD		1,233.3	1,233.3			5,527.4	5,527.4		4,294.1	348.2%	5,900.0
13	Calculation or accounting of	1000 AMD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]			Planned
	capital expenditure, including:												
13.1	Capital expenditure on maintenance of irrigation systems	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0
13.2	Capital costs of vehicle maintenance	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0
13.3	Costs of acquisition of fixed assets	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0
13.4	Other capital expenditures	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0
14	Total payments for expenses and payables	1000 AMD	451,509.0	547,248.1	95,739.1	21.2%	717,298.0	696,496.8	-20,801.2	-2.9%	149,248.7	27.3%	740,600.0
15	State financial support received	1000 AMD	331,533.4	435,034.6	103,501.2	31.2%	601,723.0	589,617.9	-12,105.1	-2.0%	154,583.2	35.5%	4,379,800.0
16	Debts of WUAs as of the last day of the reporting year	1000 AMD	0.0	24,061.7	24,061.7		120.0	24,608.0	24,488.0	20406.7%	546.3	2.3%	29,608.0
17	Receivables of WUAs as of the last day of the reporting year	1000 AMD	60,288.3	79,756.6	19,468.3	32.3%	72,156.7	86,772.0	14,615.3	20.3%	7,015.4	8.8%	93,472.0
18	Financial gap of WUAs	1000 AMD	-23,207.6	-62,067.6	-38,860.0	167.4%	-1,680.0	-30,181.4	-28,501.4	1696.5%	31,886.1	-51.4%	-46,124.5

Source: Analysis based on the data, provided by WUAs and the Water Committee, MTAI, 2023

Annex 13: Lori WUA - Planned/actual indicators for 2021-2022, forecasts for 2023

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]			Planned
1	Cadastral irrigable lands of the WUA service area	ha	7,365.5	7,365.5	0.0	0.0%	7,365.5	7,365.5	0.0	0.0%	0.0	0.0%	7,365.5
2	Declared irrigable lands in the WUA service area	ha	1,312.0	1,196.9	-115.1	-8.8%	1,312.0	1,408.5	96.5	7.4%	211.6	17.7%	1,700.0
3	Volume of irrigation water received (intake), including:	1000 m^3	4,060.0	4,208.2	-148.2	10.6%	4,030.0	5,299.6	-1,269.6	63.1%	1,091.4	25.9%	6,400.0
3.1	Obtaining purchased water, including:	1000 m^3	0.0	0.0	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0
3.1.1	a) by gravity	1000 m^3			0.0	0.0%			0.0	0.0%	0.0	0.0%	0.0
3.1.2	b) mechanically	1000 m^3			0.0	0.0%			0.0	0.0%	0.0	0.0%	0.0
3.2	Water from local sources, including:	1000 m^3	4,060.0	4,208.2	-148.2	10.6%	4,030.0	5,299.6	-1,269.6	63.1%	1,091.4	25.9%	6,400.0
3.2.1	a) by gravity	1000 m^3	1,840.0	2,260.1	-420.1	22.8%	1,810.0	2,390.9	-580.9	32.1%	130.8	5.8%	2,900.0
3.2.2	b) mechanically	1000 m^3	2,220.0	1,948.1	271.9	-12.2%	2,220.0	2,908.7	-688.7	31.0%	960.6	49.3%	3,500.0
4	Consumed electricity	1000 kWh	1,756.0	1,484.5	-271.5	-15.5%	1,756.0	2,072.0	316.0	18.0%	587.5	39.6%	2,500.0
5	Water supply by the WUA	1000 m^3	2,610.0	2,801.4	191.4	7.3%	2,610.0	3,446.6	836.6	32.1%	645.2	23.0%	4,200.0
6	ISF for water supplied by the WUA	AMD/m^3	11.00	11.00	0.00	0.0%	11.00	11.00	0.00	0.0%	0.0	0.0%	11.00
7	Self-cost of irrigation water supplied by WUAs to farmers, calculated with the sum of all current costs	AMD/m^3	70.30	75.44	5.14	7.3%	65.82	82.73	16.91	25.7%	7.3	9.7%	81.62
7.1	Self-cost of irrigation water supplied by WUAs to farmers, excluding electricity costs	AMD/m^3	43.33	48.70	5.37	12.4%	65.78	53.47	-12.31	-18.7%	4.8	9.8%	52.64

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]			Planned
7.2	Self-cost of irrigation water supplied by WUAs to farmers, excluding electricity costs	AMD/m^3	70.30	75.44	5.14	7.3%	38.84	82.73	43.89	113.0%	7.3	9.7%	81.62
8	Self-cost of irrigation water supplied by WUAs to farmers, excluding electricity costs	AMD/m^3	28,710.0	44,693.5	15,983.5	55.7%	28,710.0	52,350.2	23,640.2	82.3%	7,656.7	17.1%	46,200.0
9	Calculated membership fee	1000 AMD	1,312.0	1,196.9	-115.1	-8.8%	1,312.0	1,408.5	96.5	7.4%	211.6	17.7%	1,700.0
10	Collection of payments related to supplied irrigation water during the reporting period	1000 AMD	29,800.0	41,604.2	11,804.2	39.6%	37,520.0	52,350.2	14,830.2	39.5%	10,746.0	25.8%	63,000.0
11	Collection of membership fees during the reporting period	1000 AMD	1,552.0	1,224.5	-327.5	-21.1%	2,709.0	1,295.2	-1,413.8	-52.2%	70.7	5.8%	1,600.0
12	Calculation or accounting of current costs, including:	1000 AMD	183,479.0	211,327.0	27,848.0	15.2%	171,777.5	285,129.9	113,352.4	66.0%	73,802.9	34.9%	342,800.0
12.1	Spring preparations and current expenditures on fixed assets	1000 AMD	20,000.0	40,597.7	20,597.7	103.0%	25,000.0	57,336.5	32,336.5	129.3%	16,738.8	41.2%	69,200.0
12.2	Salary and other equivalent payments (subject to payment)	1000 AMD	62,275.0	62,211.8	-63.2	-0.1%	47,131.1	84,192.1	37,061.0	78.6%	21,980.3	35.3%	101,600.0
12.3	Income tax on salary and other equivalent payments	1000 AMD	18,922.0	20,040.2	1,118.2	5.9%	15,534.1	26,109.7	10,575.6	68.1%	6,069.5	30.3%	30,000.0

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]			Planned
12.4	Mandatory social security payments	1000 AMD	1,284.0	1,488.8	204.8	16.0%	1,514.3	2,388.0	873.7	57.7%	899.2	60.4%	3,200.0
12.5	Transportation costs and fuel	1000 AMD	5,000.0	6,524.0	1,524.0	30.5%	6,300.0	7,308.8	1,008.8	16.0%	784.8	12.0%	8,800.0
12.6	Banking, postal, telecommunication costs	1000 AMD	600.0	553.1	-46.9	-7.8%	4,300.0	490.9	-3,809.1	-88.6%	-62.2	-11.2%	600.0
12.7	Expenses related to bank and other loans	1000 AMD		0.0	0.0	0.0%	500.0	0.0	-500.0	-100.0%	0.0	0.0%	0.0
12.8	Borrowings from other sources	1000 AMD		0.0	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0
12.9	Economic, representative and other expenses	1000 AMD	5,000.0	332.5	-4,667.5	-93.4%	0.0	281.4	281.4		-51.1	-15.4%	300.0
12.10	Expenses related to the rental of immovable or movable property, including taxes	1000 AMD			0.0	0.0%	1,000.0		-1,000.0	-100.0%	0.0	0.0%	0.0
12.11	Electricity costs	1000 AMD	70,398.0	74,905.8	4,507.8	6.4%	100.0	100,853.2	100,753.2	100753.2%	25,947.4	34.6%	121,700.0
12.12	Water abstraction costs	1000 AMD		0.0	0.0	0.0%	70,398.0	0.0	-70,398.0	-100.0%	0.0	0.0%	0.0
12.13	Reserve fund - co-financing of investment projects and fixed assets	1000 AMD		876.1	876.1		0.0	2,077.8	2,077.8		1,201.7	137.2%	2,500.0
12.14	Value added tax	1000 AMD		0.0	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0
12.15	Profit tax	1000 AMD		0.0	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0
12.16	Tax penalties and fines	1000 AMD		210.5	210.5		0.0	187.7	187.7		-22.8	-10.8%	200.0
12.17	Penalties related to electricity payments	1000 AMD		466.9	466.9		0.0	1,365.2	1,365.2		898.3	192.4%	1,600.0
12.18	Other expenses	1000 AMD		3,119.6	3,119.6			2,538.6	2,538.6		-581.0	-18.6%	3,100.0
13	Calculation or accounting of capital expenditure, including:	1000 AMD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]			Planned
13.1	Capital expenditure on maintenance of irrigation systems	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0
13.2	Capital costs of vehicle maintenance	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0
13.3	Costs of acquisition of fixed assets	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0
13.4	Other capital expenditures	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0
14	Total payments for expenses and payables	1000 AMD	174,494.8	199,133.8	24,639.0	14.1%	151,794.4	262,207.0	110,412.6	72.7%	63,073.2	31.7%	316,500.0
15	State financial support received	1000 AMD	130,002.3	142,243.3	12,241.0	9.4%	98,546.7	208,083.5	109,536.8	111.2%	65,840.1	46.3%	4,379,800.0
16	Debts of WUAs as of the last day of the reporting year	1000 AMD	14,632.5	5,650.1	-8,982.4	-61.4%	67,196.9	12,550.0	-54,646.9	-81.3%	6,899.9	122.1%	38,850.0
17	Receivables of WUAs as of the last day of the reporting year	1000 AMD	21,802.4	25,675.6	3,873.2	17.8%	16,865.6	26,954.0	10,088.4	59.8%	1,278.4	5.0%	10,254.0
18	Financial gap of WUAs	1000 AMD	-27,773.0	-19,711.9	8,061.1	-29.0%	-80,215.6	-13,028.1	67,187.5	-83.8%	6,683.7	-33.9%	-16,370.0

Source: Analysis based on the data, provided by WUAs and the Water Committee, MTAI, 2023

Annex 14: Yeghegnadzor WUA - Planned/actual indicators for 2021-2022, forecasts for 2023

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]			Planned
1	Cadastral irrigable lands of the WUA service area	ha	5,037.6	5,037.6	0.0	0.0%	5,037.6	5,037.6	0.0	0.0%	0.0	0.0%	5,037.6
2	Declared irrigable lands in the WUA service area	ha	2,512.0	2,470.1	-41.9	-1.7%	2,550.0	2,541.9	-8.2	-0.3%	71.8	2.9%	2,600.0
3	Volume of irrigation water received (intake), including:	1000 m^3	17,377.0	18,163.0	-786.0	30.9%	19,750.0	17,862.0	1,888.0	4.0%	-301.0	-1.7%	18,300.0
3.1	Obtaining purchased water, including:	1000 m^3	0.0	0.0	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0
3.1.1	a) by gravity	1000 m^3			0.0	0.0%			0.0	0.0%	0.0	0.0%	0.0
3.1.2	b) mechanically	1000 m^3			0.0	0.0%			0.0	0.0%	0.0	0.0%	0.0
3.2	Water from local sources, including:	1000 m^3	17,377.0	18,163.0	-786.0	30.9%	19,750.0	17,862.0	1,888.0	4.0%	-301.0	-1.7%	18,300.0
3.2.1	a) by gravity	1000 m^3	16,777.0	17,400.0	-623.0	3.7%	18,990.0	16,992.0	1,998.0	-10.5%	-408.0	-2.3%	17,400.0
3.2.2	b) mechanically	1000 m^3	600.0	763.0	-163.0	27.2%	760.0	870.0	-110.0	14.5%	107.0	14.0%	900.0
4	Consumed electricity	1000 kWh	1,700.0	1,995.7	295.7	17.4%	2,000.0	2,640.0	640.0	32.0%	644.3	32.3%	2,700.0
5	Water supply by the WUA	1000 m^3	11,000.0	11,526.4	526.4	4.8%	12,500.0	11,307.0	-1,193.0	-9.5%	-219.4	-1.9%	11,600.0
6	ISF for water supplied by the WUA	AMD/m^3	11.00	11.00	0.00	0.0%	11.00	11.00	0.00	0.0%	0.0	0.0%	11.00
7	Self-cost of irrigation water supplied by WUAs to farmers, calculated with the sum of all current costs	AMD/m^3	20.73	22.15	1.42	6.8%	18.71	25.86	7.16	38.3%	3.7	16.8%	25.70
7.1	Self-cost of irrigation water supplied by WUAs to farmers, excluding electricity costs	AMD/m^3	20.73	22.15	1.42	6.8%	18.71	25.86	7.16	38.3%	3.7	16.8%	25.70
7.2	Self-cost of irrigation water supplied by WUAs to farmers,	AMD/m^3	14.68	14.84	0.16	1.1%	12.40	16.94	4.54	36.6%	2.1	14.1%	16.80

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]			Planned
	excluding electricity costs												
8	Self-cost of irrigation water supplied by WUAs to farmers, excluding electricity costs	AMD/m^3	121,000.0	126,789.9	5,789.9	4.8%	134,436.0	124,377.0	-10,059.0	-7.5%	-2,412.9	-1.9%	127,600.0
9	Calculated membership fee	1000 AMD	2,512.0	2,470.1	-41.9	-1.7%	2,550.0	2,541.9	-8.1	-0.3%	71.8	2.9%	2,600.0
10	Collection of payments related to supplied irrigation water during the reporting period	1000 AMD	125,500.0	129,204.0	3,704.0	3.0%	134,300.0	131,432.0	-2,868.0	-2.1%	2,228.0	1.7%	134,000.0
11	Collection of membership fees during the reporting period	1000 AMD	2,600.0	2,706.0	106.0	4.1%	3,300.0	2,724.0	-576.0	-17.5%	18.0	0.7%	2,800.0
12	Calculation or accounting of current costs, including:	1000 AMD	228,011.0	255,280.4	27,269.4	12.0%	233,818.0	292,438.7	58,620.7	25.1%	37,158.3	14.6%	298,100.0
12.1	Spring preparations and current expenditures on fixed assets	1000 AMD	39,999.0	44,218.8	4,219.8	10.5%	42,240.0	57,336.5	15,096.5	35.7%	13,117.7	29.7%	58,600.0
12.2	Salary and other equivalent payments (subject to payment)	1000 AMD	81,751.8	80,189.3	-1,562.5	-1.9%	73,135.6	84,192.1	11,056.5	15.1%	4,002.8	5.0%	86,100.0
12.3	Income tax on salary and other equivalent payments	1000 AMD	23,058.2	25,816.6	2,758.4	12.0%	22,372.4	26,109.7	3,737.3	16.7%	293.1	1.1%	25,400.0
12.4	Mandatory social security payments	1000 AMD		1,140.7	1,140.7		0.0	2,388.0	2,388.0		1,247.3	109.3%	2,700.0
12.5	Transportation costs and fuel	1000 AMD	6,130.0	6,030.6	-99.4	-1.6%	6,550.0	7,308.8	758.8	11.6%	1,278.2	21.2%	7,500.0
12.6	Banking, postal, telecommunication costs	1000 AMD	4,130.0	3,079.3	-1,050.7	-25.4%	4,350.0	7,308.8	2,958.8	68.0%	4,229.5	137.4%	7,500.0

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]			Planned
12.7	Expenses related to bank and other loans	1000 AMD	2,938.0	2,598.9	-339.1	-11.5%	3,000.0	490.9	-2,509.1	-83.6%	-2,108.0	-81.1%	500.0
12.8	Borrowings from other sources	1000 AMD		0.0	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0
12.9	Economic, representative and other expenses	1000 AMD		0.0	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0
12.10	Expenses related to the rental of immovable or movable property, including taxes	1000 AMD	3,500.0	4,305.8	805.8	23.0%	2,900.0	281.4	-2,618.6	-90.3%	-4,024.4	-93.5%	300.0
12.11	Electricity costs	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0
12.12	Water abstraction costs	1000 AMD	66,504.0	84,181.1	17,677.1	26.6%	78,820.0	100,853.2	22,033.2	28.0%	16,672.1	19.8%	103,200.0
12.13	Reserve fund - co-financing of investment projects and fixed assets	1000 AMD		0.0	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0
12.14	Value added tax	1000 AMD		2,568.1	2,568.1		0.0	2,077.8	2,077.8		-490.3	-19.1%	2,100.0
12.15	Profit tax	1000 AMD		436.8	436.8		0.0	0.0	0.0	0.0%	-436.8	-100.0%	0.0
12.16	Tax penalties and fines	1000 AMD		0.0	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0
12.17	Penalties related to electricity payments	1000 AMD		30.2	30.2		0.0	187.7	187.7		157.5	521.5%	200.0
12.18	Other expenses	1000 AMD		684.2	684.2		450.0	3,903.8	3,453.8	767.5%	3,219.6	470.6%	4,000.0
13	Calculation or accounting of capital expenditure, including:	1000 AMD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13.1	Capital expenditure on maintenance of irrigation systems	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0
13.2	Capital costs of vehicle maintenance	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0
13.3	Costs of acquisition of fixed assets	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0
13.4	Other capital expenditures	1000 AMD			0.0	0.0%	0.0		0.0	0.0%	0.0	0.0%	0.0

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]			Planned
14	Total payments for expenses and payables	1000 AMD	225,711.9	249,882.4	24,170.5	10.7%	287,678.9	310,303.2	22,624.3	7.9%	60,420.8	24.2%	317,400.0
15	State financial support received	1000 AMD	89,856.0	147,638.9	57,782.9	64.3%	142,934.7	163,864.1	20,929.4	14.6%	16,225.2	11.0%	4,379,800.0
16	Debts of WUAs as of the last day of the reporting year	1000 AMD	0.0	6,936.8	6,936.8		16,044.7	16,137.0	92.3	0.6%	9,200.2	132.6%	-3,163.0
17	Receivables of WUAs as of the last day of the reporting year	1000 AMD	40,528.0	48,905.2	8,377.2	20.7%	49,041.2	46,267.0	-2,774.2	-5.7%	-2,638.2	-5.4%	39,667.0
18	Financial gap of WUAs	1000 AMD	-7,755.9	22,729.7	30,485.6	-393.1%	-23,188.9	-28,420.1	-5,231.2	22.6%	-51,149.8	-225.0%	-2,845.2

Source: Analysis based on the data, provided by WUAs and the Water Committee, MTAI, 2023

Annex 15: Syunik WUA - Planned/actual indicators for 2021-2022, forecasts for 2023

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]			Planned
1	Cadastral irrigable lands of the WUA service area	ha	6,966.5	6,966.5	0.0	0.0%	6,966.5	6,966.5	0.0	0.0%	0.0	0.0%	6,966.5
2	Declared irrigable lands in the WUA service area	ha	1,900.0	1,072.0	-828.0	-43.6%	1,187.1	811.6	-375.5	-31.6%	-260.4	-24.3%	600.0
3	Volume of irrigation water received (intake), including:	1000 m^3	9,050.0	6,034.7	3,015.3	-28.0%	7,600.6	6,601.0	999.6	76.4%	566.3	9.4%	4,900.0
3.1	Obtaining purchased water, including:	1000 m^3	150.0	187.0	-37.0	24.7%	180.0	367.4	-187.4	104.1%	180.4	96.5%	300.0
3.1.1	a) by gravity	1000 m^3	150.0	187.0	-37.0	24.7%	180.0	367.4	-187.4	104.1%	180.4	96.5%	300.0
3.1.2	b) mechanically	1000 m^3			0.0	0.0%			0.0	0.0%	0.0	0.0%	0.0
3.2	Water from local sources, including:	1000 m^3	8,900.0	5,847.7	3,052.3	-52.7%	7,420.6	6,233.6	1,187.0	-27.7%	385.9	6.6%	4,600.0
3.2.1	a) by gravity	1000 m^3	3,560.0	4,038.5	-478.5	13.4%	3,355.0	3,635.0	-280.0	8.3%	-403.5	-10.0%	2,700.0
3.2.2	b) mechanically	1000 m^3	5,340.0	1,809.2	3,530.8	-66.1%	4,065.6	2,598.6	1,467.0	-36.1%	789.4	43.6%	1,900.0
4	Consumed electricity	1000 kWh	2,040.0	3,309.7	1,269.7	62.2%	3,310.0	3,587.6	277.6	8.4%	277.9	8.4%	2,700.0
5	Water supply by the WUA	1000 m^3	6,400.0	4,300.7	-2,099.3	-32.8%	4,759.2	4,528.5	-230.7	-4.8%	227.8	5.3%	3,300.0
6	ISF for water supplied by the WUA	AMD/m^3	11.00	11.00	0.00	0.0%	11.00	11.00	0.00	0.0%	0.0	0.0%	11.00
7	Self-cost of irrigation water supplied by WUAs to farmers, calculated with the sum of all current costs	AMD/m^3	44.58	85.36	40.78	91.5%	78.63	95.97	17.33	22.0%	10.6	12.4%	97.03
7.1	Self-cost of irrigation water supplied by WUAs to farmers, excluding electricity costs	AMD/m^3	31.83	52.69	20.86	65.5%	50.26	56.02	5.76	11.5%	3.3	6.3%	56.48
7.2	Self-cost of irrigation water supplied by WUAs to farmers,	AMD/m^3	44.55	85.30	40.75	91.5%	78.60	95.88	17.28	22.0%	10.6	12.4%	96.94

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]			Planned
	excluding electricity costs												
8	Self-cost of irrigation water supplied by WUAs to farmers, excluding electricity costs	AMD/m^3	71,005.0	47,308.1	-23,696.9	-33.4%	52,351.2	49,817.3	-2,533.9	-4.8%	2,509.2	5.3%	36,300.0
9	Calculated membership fee	1000 AMD	1,900.0	1,072.0	-828.0	-43.6%	1,187.1	811.6	-375.5	-31.6%	-260.4	-24.3%	600.0
10	Collection of payments related to supplied irrigation water during the reporting period	1000 AMD	67,400.0	32,863.0	-34,537.0	-51.2%	72,950.0	43,935.7	-29,014.3	-39.8%	11,072.7	33.7%	32,000.0
11	Collection of membership fees during the reporting period	1000 AMD	2,300.0	0.0	-2,300.0	-100.0%	1,600.0	0.0	-1,600.0	-100.0%	0.0	0.0%	0.0
12	Calculation or accounting of current costs, including:	1000 AMD	285,300.0	367,089.4	81,789.4	28.7%	374,238.0	434,586.6	60,348.6	16.1%	67,497.2	18.4%	320,200.0
12.1	Spring preparations and current expenditures on fixed assets	1000 AMD	28,000.0	31,136.8	3,136.8	11.2%	56,700.0	60,584.8	3,884.8	6.9%	29,448.0	94.6%	44,800.0
12.2	Salary and other equivalent payments (subject to payment)	1000 AMD	126,182.2	116,892.8	-9,289.4	-7.4%	112,546.0	124,572.8	12,026.8	10.7%	7,680.1	6.6%	92,100.0
12.3	Income tax on salary and other equivalent payments	1000 AMD	35,589.8	36,809.6	1,219.8	3.4%	33,142.0	38,132.7	4,990.7	15.1%	1,323.1	3.6%	26,800.0
12.4	Mandatory social security payments	1000 AMD		2,006.8	2,006.8		0.0	2,775.3	2,775.3		768.5	38.3%	2,300.0
12.5	Transportation costs and fuel	1000 AMD	7,500.0	14,939.7	7,439.7	99.2%	19,000.0	14,068.6	-4,931.4	-26.0%	-871.1	-5.8%	10,400.0
12.6	Banking, postal, telecommunication costs	1000 AMD	800.0	852.3	52.3	6.5%	2,000.0	832.9	-1,167.1	-58.4%	-19.4	-2.3%	600.0

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]			Planned
12.7	Expenses related to bank and other loans	1000 AMD		0.0	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0
12.8	Borrowings from other sources	1000 AMD		0.0	0.0	0.0%	3,220.0	0.0	-3,220.0	-100.0%	0.0	0.0%	0.0
12.9	Economic, representative and other expenses	1000 AMD	3,250.0	560.8	-2,689.2	-82.7%	4,200.0	559.1	-3,640.9	-86.7%	-1.7	-0.3%	400.0
12.10	Expenses related to the rental of immovable or movable property, including taxes	1000 AMD	950.0		-950.0	-100.0%	3,000.0		-3,000.0	-100.0%	0.0	0.0%	0.0
12.11	Electricity costs	1000 AMD	81,600.0	140,479.4	58,879.4	72.2%	135,048.0	180,920.5	45,872.5	34.0%	40,441.0	28.8%	133,800.0
12.12	Water abstraction costs	1000 AMD	151.0	228.2	77.2	51.2%	182.0	388.7	206.7	113.6%	160.5	70.3%	300.0
12.13	Reserve fund - co-financing of investment projects and fixed assets	1000 AMD	1,277.0	10,254.0	8,977.0	703.0%	5,200.0	1,202.1	-3,997.9	-76.9%	-9,051.9	-88.3%	900.0
12.14	Value added tax	1000 AMD		452.8	452.8		0.0	517.1	517.1		64.3	14.2%	400.0
12.15	Profit tax	1000 AMD		0.0	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0
12.16	Tax penalties and fines	1000 AMD		636.3	636.3		0.0	998.1	998.1		361.9	56.9%	700.0
12.17	Penalties related to electricity payments	1000 AMD		1,799.6	1,799.6		0.0	3,673.0	3,673.0		1,873.4	104.1%	2,700.0
12.18	Other expenses	1000 AMD		10,040.3	10,040.3			5,360.9	5,360.9		-4,679.4	-46.6%	4,000.0
13	Calculation or accounting of capital expenditure, including:	1000 AMD	28,000.0	31,136.8	3,136.8	11.2%	56,700.0	60,584.8	3,884.8	6.9%	29,448.0	94.6%	44,800.0
13.1	Capital expenditure on maintenance of irrigation systems	1000 AMD	126,182.2	116,892.8	-9,289.4	-7.4%	112,546.0	124,572.8	12,026.8	10.7%	7,680.1	6.6%	92,100.0
13.2	Capital costs of vehicle maintenance	1000 AMD	35,589.8	36,809.6	1,219.8	3.4%	33,142.0	38,132.7	4,990.7	15.1%	1,323.1	3.6%	26,800.0
13.3	Costs of acquisition of fixed assets	1000 AMD		2,006.8	2,006.8		0.0	2,775.3	2,775.3		768.5	38.3%	2,300.0
13.4	Other capital expenditures	1000 AMD	7,500.0	14,939.7	7,439.7	99.2%	19,000.0	14,068.6	-4,931.4	-26.0%	-871.1	-5.8%	10,400.0

No	Indicator name	Measurement unit	2021				2022				Difference between the actual indicators of 2022 and 2021	Difference between the actual indicators of 2022 and 2021 [%]	2023 (forecast)
			Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]	Planned	Actual	Difference (actual-plan)	Increase or decrease of the actual indicator compared to the planned indicator [%]			Planned
14	Total payments for expenses and payables	1000 AMD	800.0	852.3	52.3	6.5%	2,000.0	832.9	-1,167.1	-58.4%	-19.4	-2.3%	600.0
15	State financial support received	1000 AMD		0.0	0.0	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0%	0.0
16	Debts of WUAs as of the last day of the reporting year	1000 AMD		0.0	0.0	0.0%	3,220.0	0.0	-3,220.0	-100.0%	0.0	0.0%	0.0
17	Receivables of WUAs as of the last day of the reporting year	1000 AMD	3,250.0	560.8	-2,689.2	-82.7%	4,200.0	559.1	-3,640.9	-86.7%	-1.7	-0.3%	400.0
18	Financial gap of WUAs	1000 AMD	950.0		-950.0	-100.0%	3,000.0		-3,000.0	-100.0%	0.0	0.0%	0.0

Source: Analysis based on the data, provided by WUAs and the Water Committee, MTAI, 2023