

ANALYSIS OF SEVAN BASIN STAKEHOLDER CONSULTATION QUESTIONNAIRES

EUWI+ “Communication Assistance to Support the Implementation of the Actions Plan for Participative RBM Planning In Armenia” Project

Within the frameworks of the “European Union Water Initiative Plus” Project since 2018 the process of development of Sevan and Hrazdan River Basin Management Plans has commenced.

The process of stakeholder consultations and discussions has started since January 2019 and will continue until June 2020, as during that time period it is expected to develop the initial draft versions of Sevan and Hrazdan RBMPs which are subject to approval by all the stakeholders.

The stakeholder consultations commenced on March 12 this year and lasted until April 12. As an important tool for public discussion and consultation process, consultation checklists/questionnaires (The original version of the questionnaire is attached to the Report Package) have been applied through which expert opinions and information were collected for the purpose of making amendments in the river basin plans and developing the Project events schedule. These checklists were filled both during the stakeholder consultation meeting held on March 21 in Gavar town, and the consultation visits conducted by Project Public Outreach Specialists (Team members who are responsible for increasing publicity of the Project. They provide a communication with stakeholders throughout the Project). The questionnaires were also disseminated online, through RA MNP official web-page, EUWI+ official web-page, social networks of CWP-Armenia, as well as different Civil Society Organization networks.

The public consultation questionnaire on Sevan Basin has been filled in by 129 stakeholders (63 printed and 66 electronic). Some of the printed questionnaires were filled out during Public Consultation meeting (20 questionnaires), and the other part (43 questionnaires) was a result of community visits. Communities were selected based on 2 main criteria - the population and the community's recreational or economic significance. The map below (Map 1) shows the communities where the team visited during public discussion and consultation process.

Almost all stakeholders responded to closed questions on the questionnaire, but not all stakeholders answered open questions which provide a qualitative part of the questionnaire.

For example, there were 13 stakeholders (16% of respondents) who answered to the qualitative part of the 1st question of the questionnaire: “Are there other significant pressures and impacts that are missing?” There were 17 stakeholders (10% of respondents) who answered to the last qualitative point of the Main issues of the questionnaire: “Are there other significant water issues that are missing?”

The part of the questionnaire where stakeholders expressed their opinion on measures and actions to be taken in the future, has a qualitative importance for the analysis process. These actions are respectively classified into the following main groups - health, quality, quantity, ecosystems, governance.

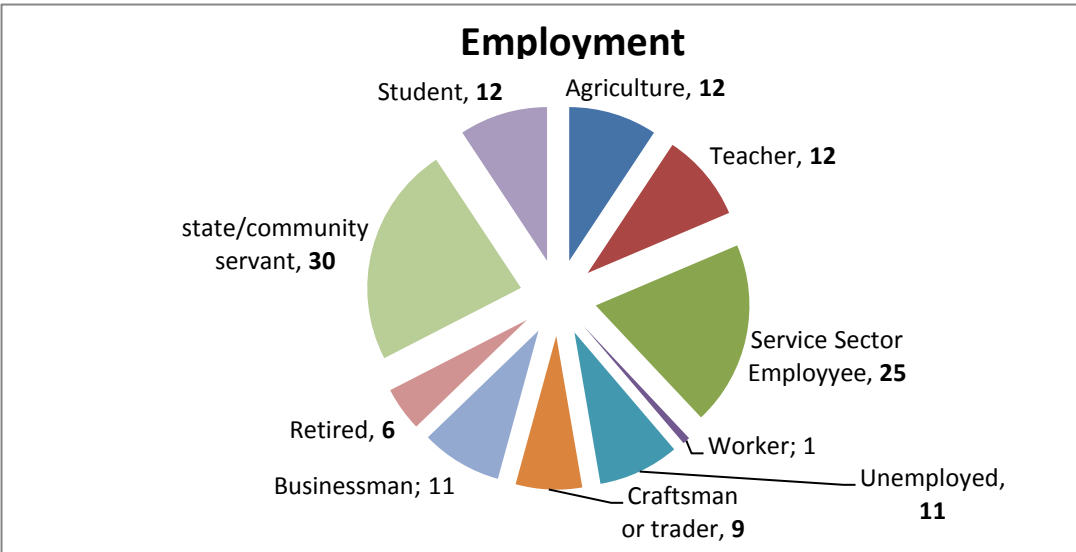
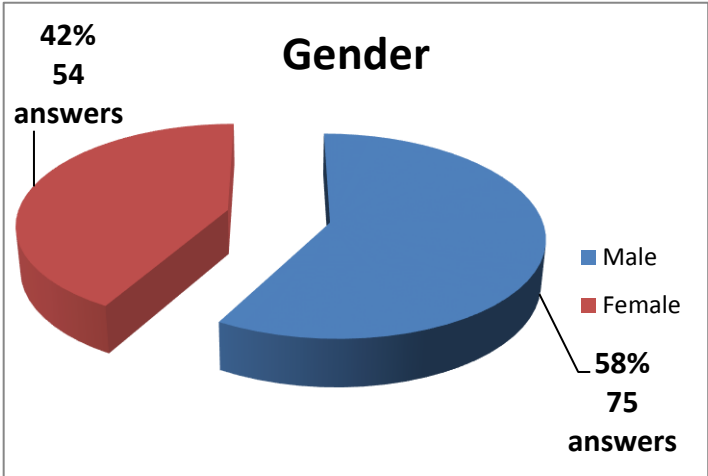
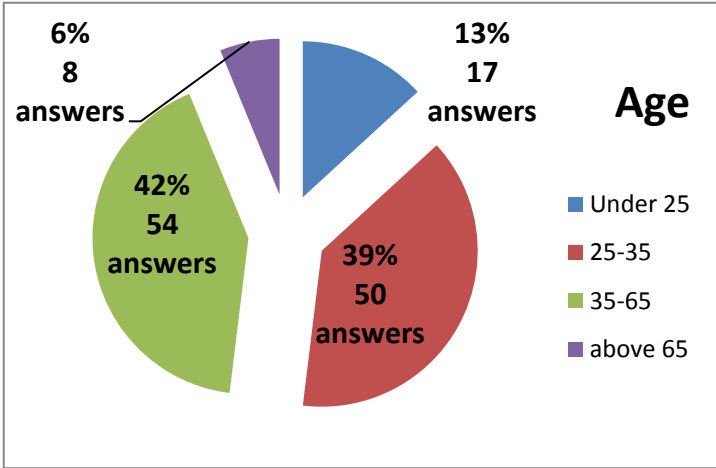
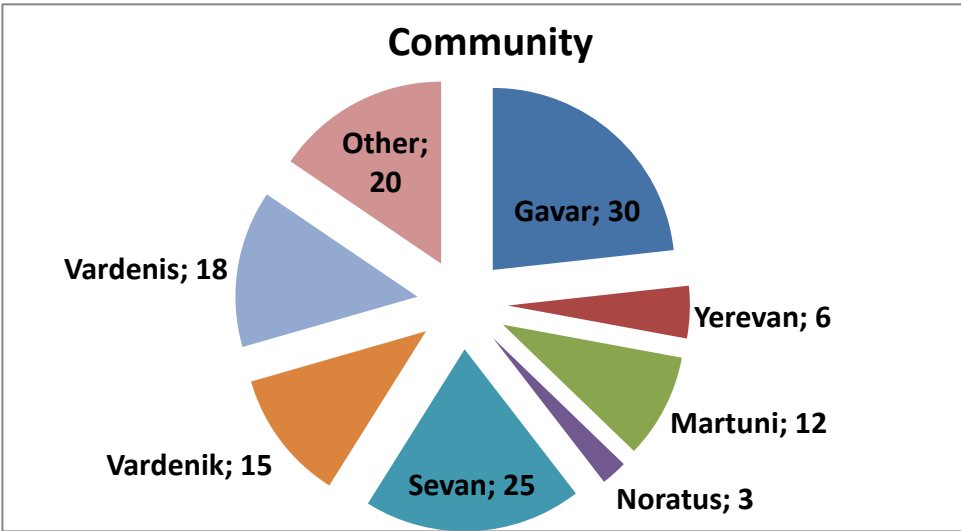
Not all respondents answered this group of questions. The results are as follows:

- Health- 37 stakeholders answered (29% of respondents),
- Quality- 44 stakeholders answered (34% of respondents)
- Quantity- 41 stakeholders answered (41% of respondents)
- Ecosystems- 33 stakeholders answered (26% of respondents)
- Governance- 45 stakeholders answered (35% of respondents)

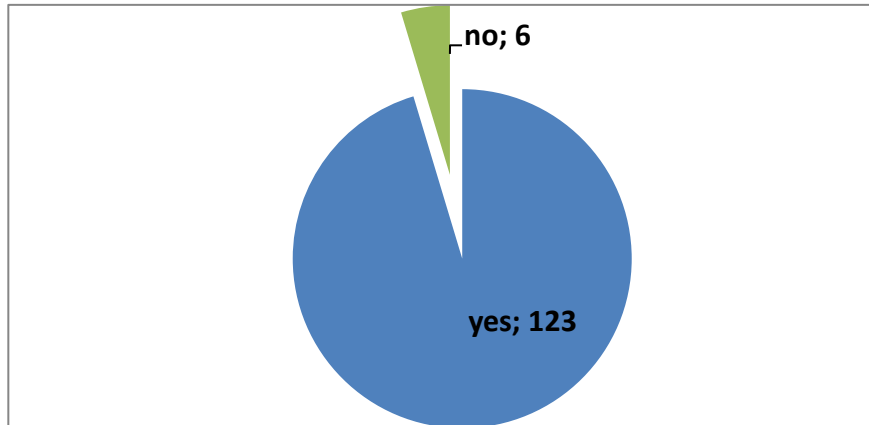
Map 1. Sevan Basin Communities where Stakeholder Consultation Questionnaires were filled up.



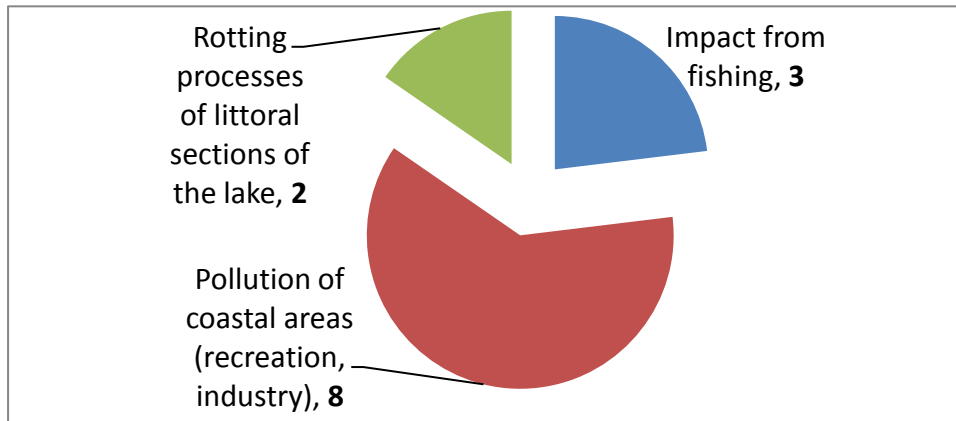
PERSONAL DATA



1. Do you agree that these are the key causes of water problems?



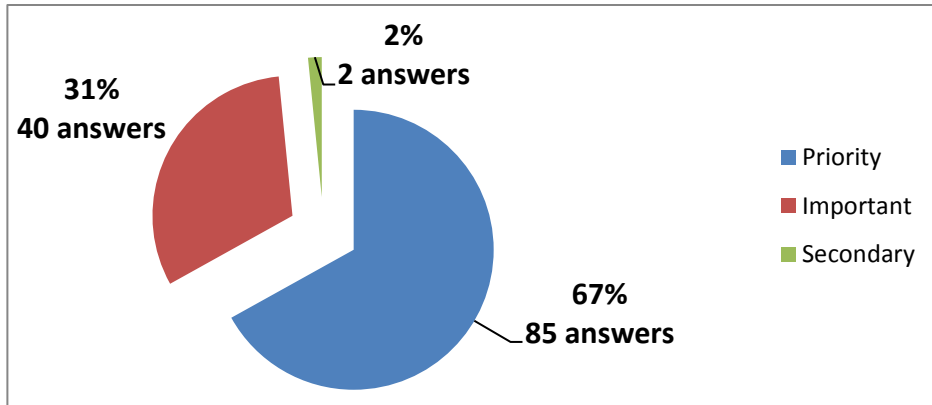
Are there other significant pressures and impacts that are missing? (This question was answered by 13 stakeholders, and their responses can be grouped as follows:



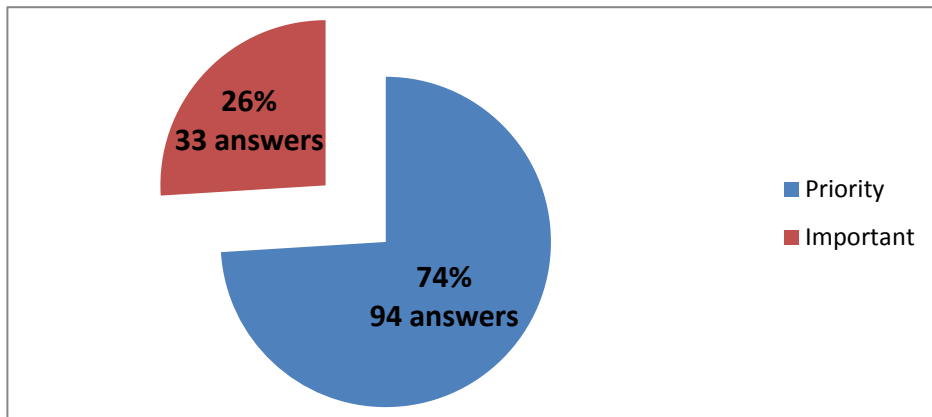
MAIN ISSUES

Some main issues have been identified on the river basin district; they are strategic for the future, for the human and aquatic life. How do you consider them personally? The above mentioned questions tried to clarify the stakeholders' opinion on those main issues.

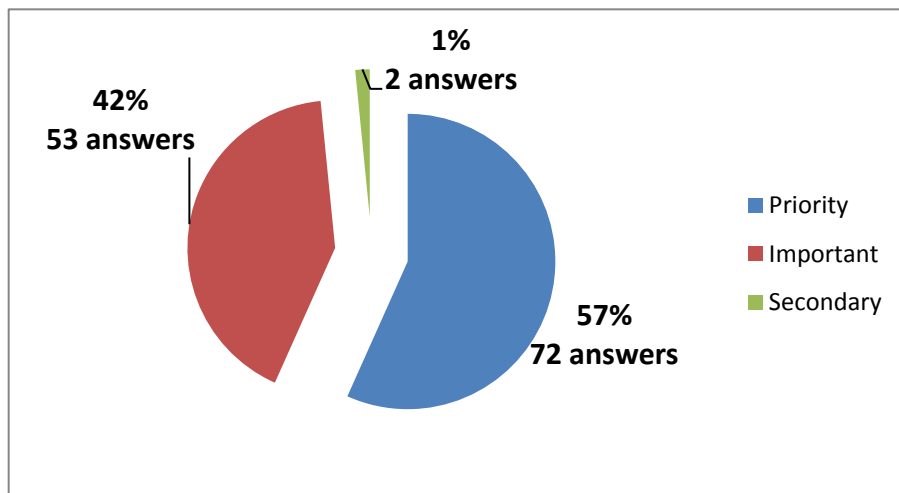
2. Health issues, that occur due to improper condition of water supply and water drainage systems (consider the importance) **(127 answers)**



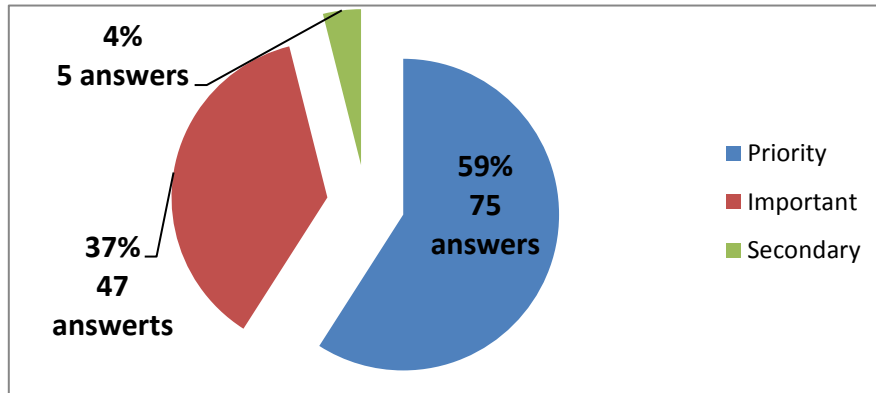
3. Deterioration of Water quality, due to which eco-systems, food safety and human health are endangered. Do you consider that prevent deterioration of water quality, in particular Sevan Lake, due to contamination of water resources with household and agricultural waste water, heavy household wastes, and nutrient pollution from fish-farming are **(127 answers)**



4. Deterioration of water quantity, which causes river shortages hampers the water users' economic activities; do you consider that protect and ensure efficient use of water resources by management & control, in particular by prevention of flow reduction of rivers flowing to Sevan Lake are **(127 answers)**

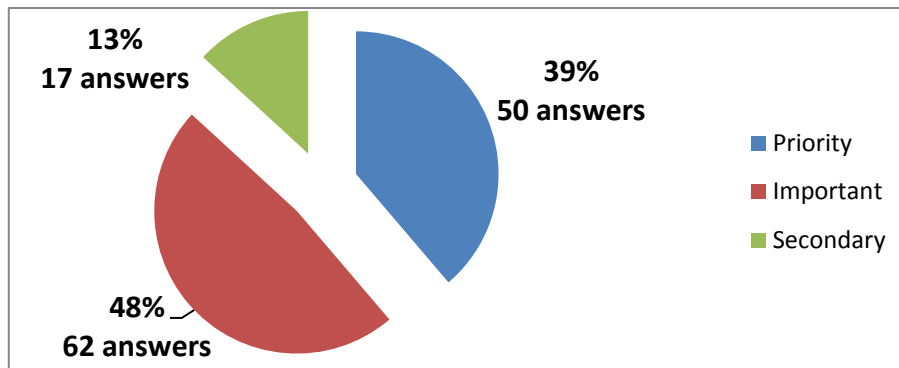


5. **Deterioration of Sevan Lake and other natural ecosystems** due to human activities, including hydro-morphological modification of littoral zone of Sevan Lake, and climate change; do you consider that assess the ecosystem ecological status with monitoring development, is **(127 answers)**

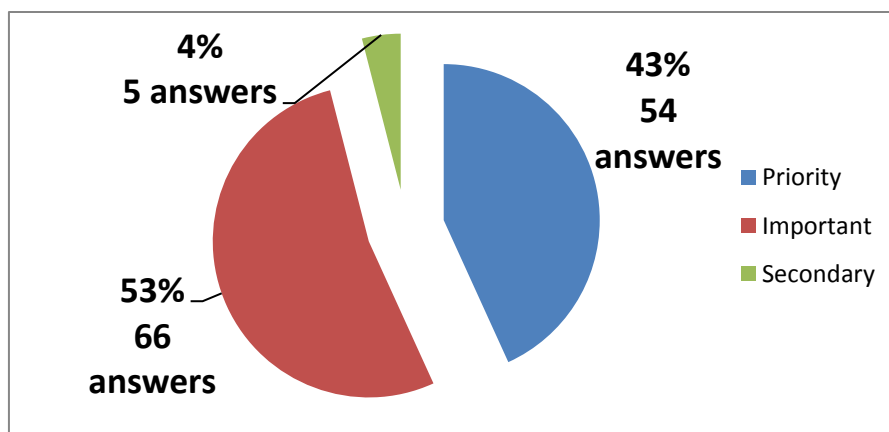


6. **Governance.** The legislative regulations and the government's institutional capacities are essential for the effective management of water resources and solution of the detected problems, do you consider that improve **(129 answers)**

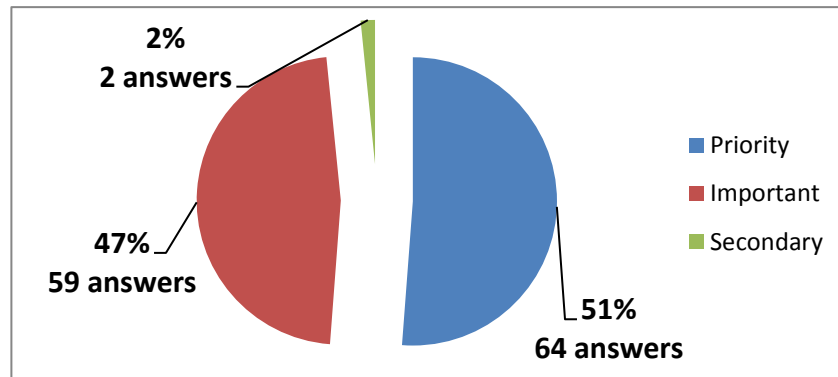
- the water legislation



- institutional capacity (125 answers)

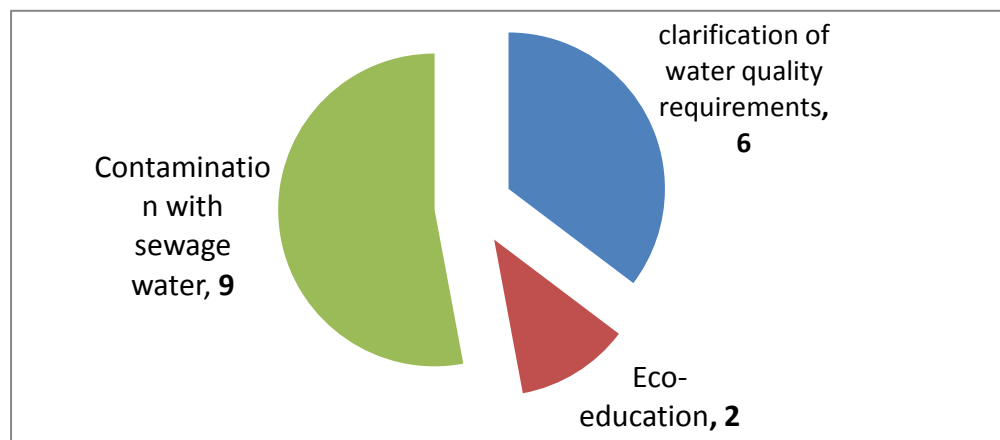


- **The awareness and information for people to accelerate the improvement of water quality (125 answers)**



7. Are there other significant water issues that are missing?

(In addition to the abovementioned problems related to water, 13% (17 people) of the respondents mentioned other issues as well, which can be classified as follows:



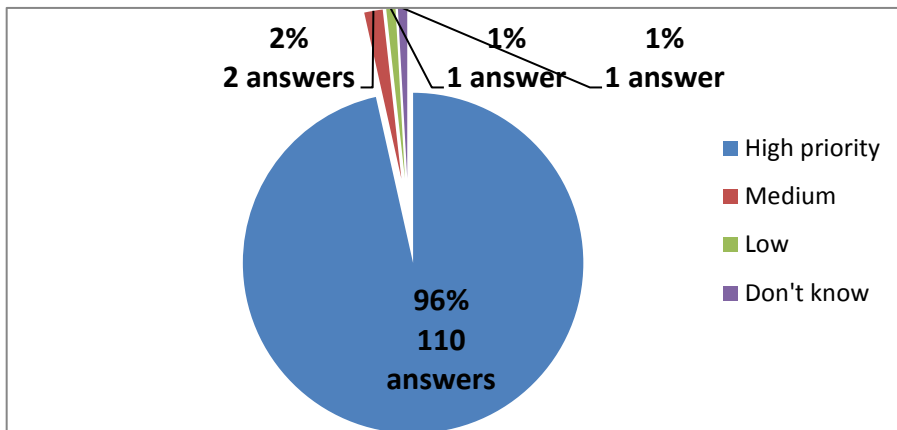
As seen from the received answers, for the majority of respondents all the mentioned main issues are primary or important, and only a small per cent of the respondent think that those issues are secondary. For the stakeholders, of particular importance are the issues related to water quality and healthcare.

POLLUTION/SOURCES OF POLLUTION

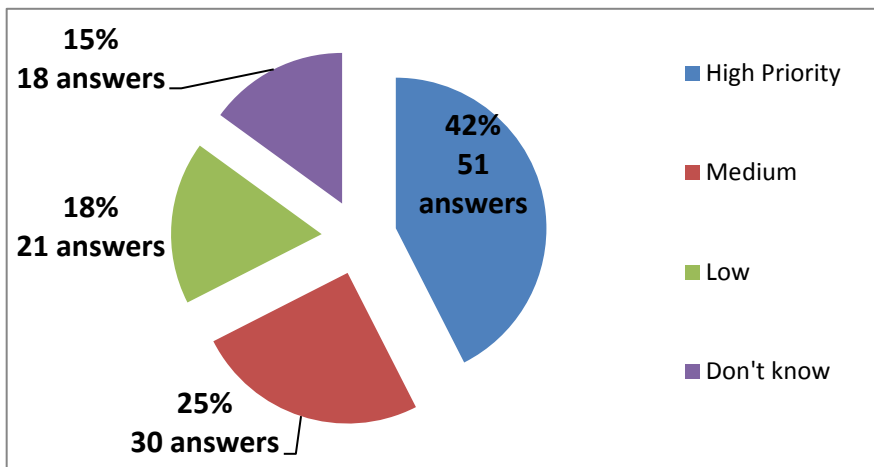
The next questionnaire group relates to the functions and use of water. The stakeholders have tried to state the pollution sources as per priority, where 1 is high priority, 2-medium, 3-low priority and 4: don't know).

Prioritize the most important sources of pollution

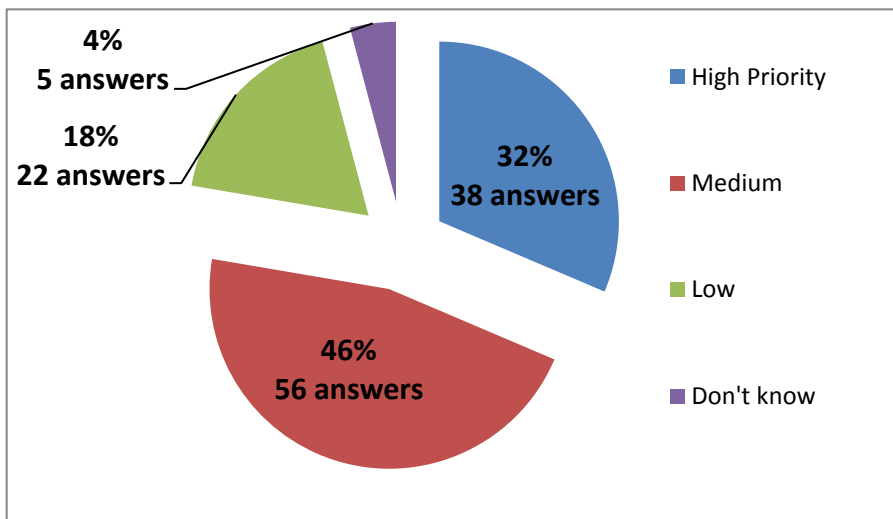
- **Domestic wastewater (114 answers)**



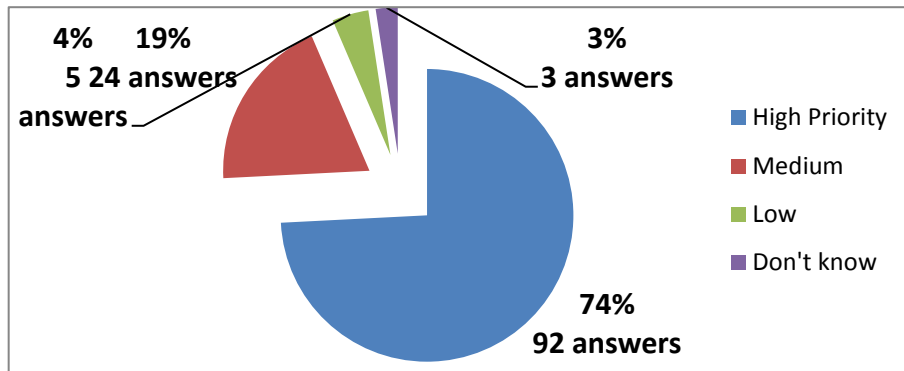
- Industrial wastewater (120 answers)



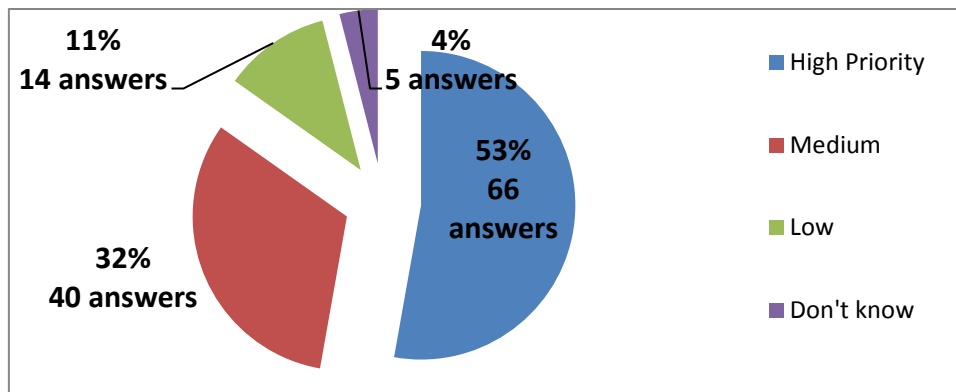
- Agricultural pollution (121 answers)



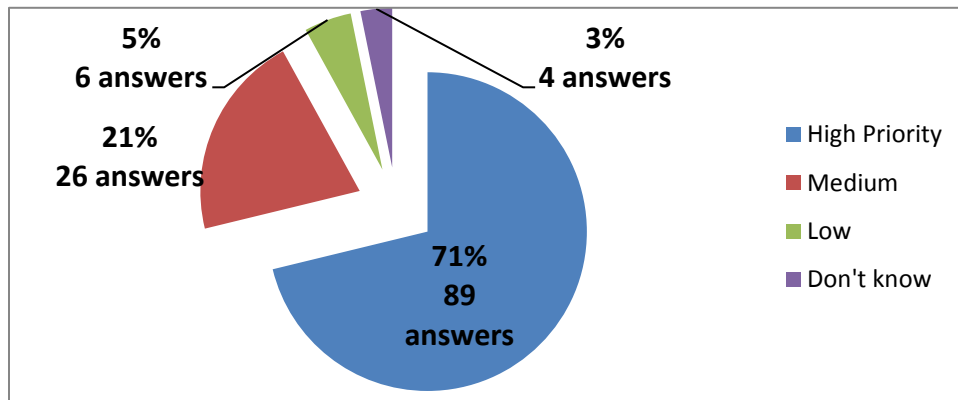
- Mining pollution (124 answers)



- Fish-farming (124 answers)



- Solid waste (125 answers)



The analysis section

result of the of this shows, that

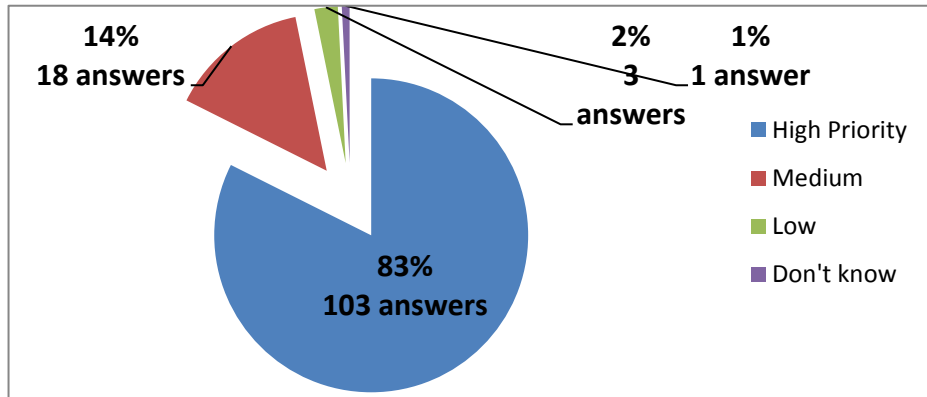
according to the stakeholders, the most important sources of pollution are domestic wastewater, mining pollution and solid waste. This is followed by fish farming, mining and agricultural waste, which are of medium priority.

POLLUTION/ EFFORTS FOR POLLUTION REDUCTION

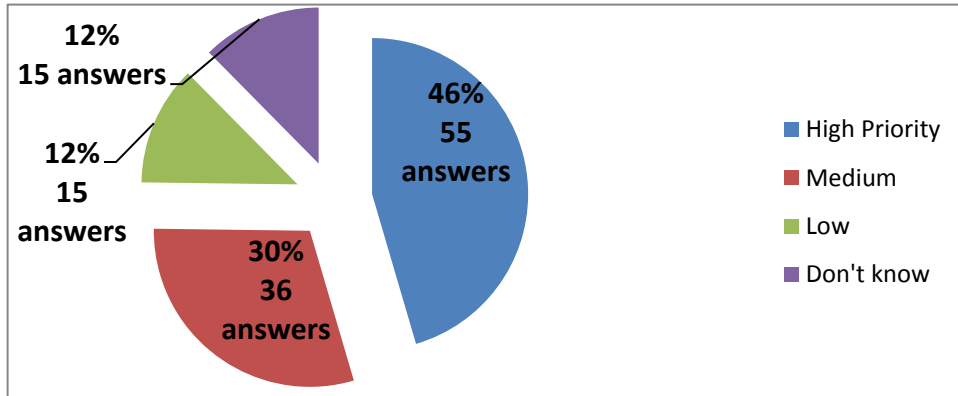
These question groups are also related to the water use and functions, The stakeholders in this case have mentioned the effort to reduce the pollution as per priority, where 1 is high priority, 2-medium, 3-low priority and 4: don't know).

prioritize the efforts to do to reduce pollution

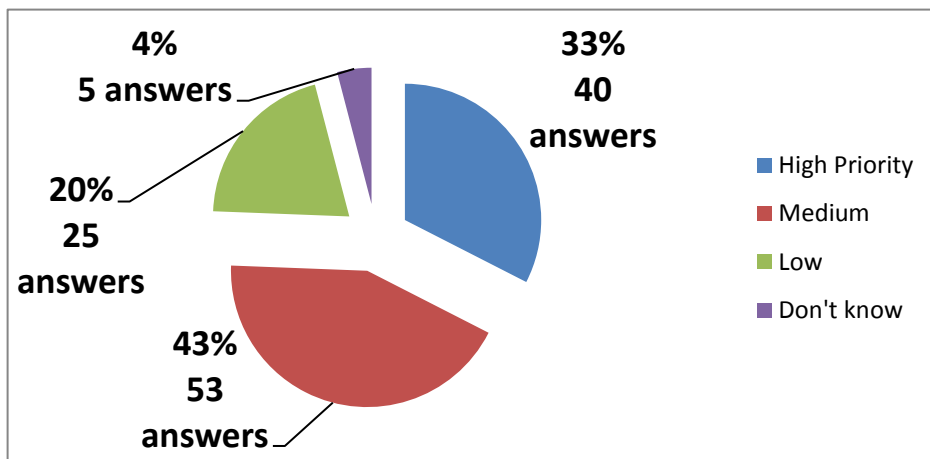
- **domestic wastewater (125 answers)**



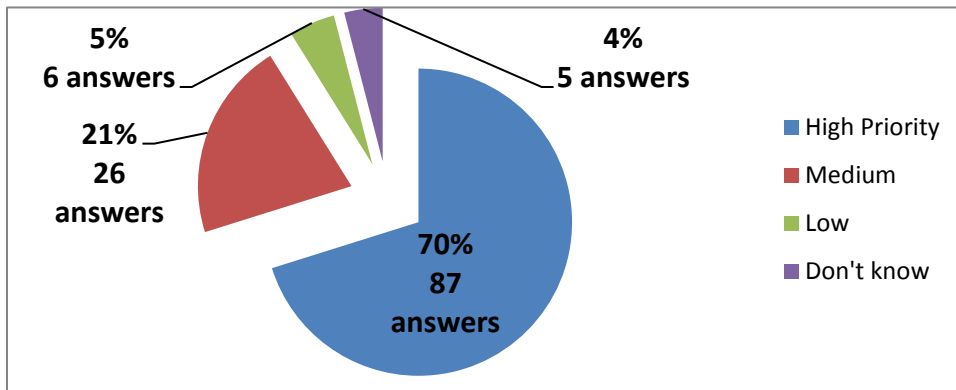
- **industrial wastewater (121 answers)**



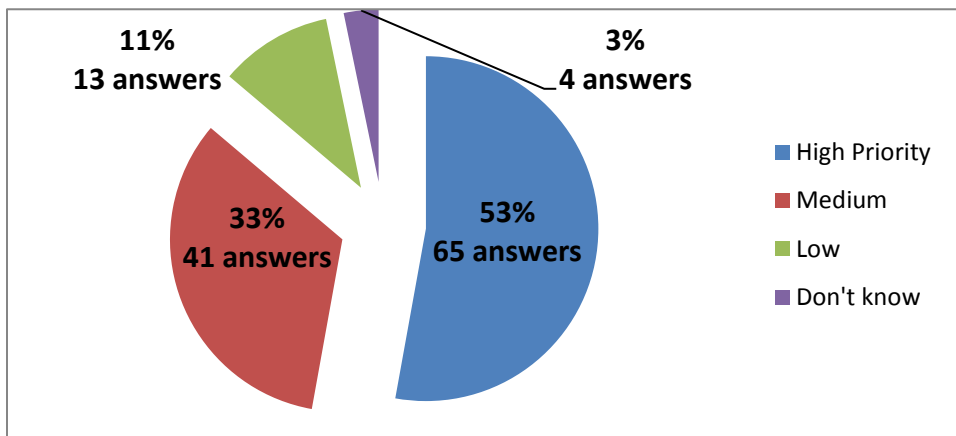
- **agricultural pollution (123 answers)**



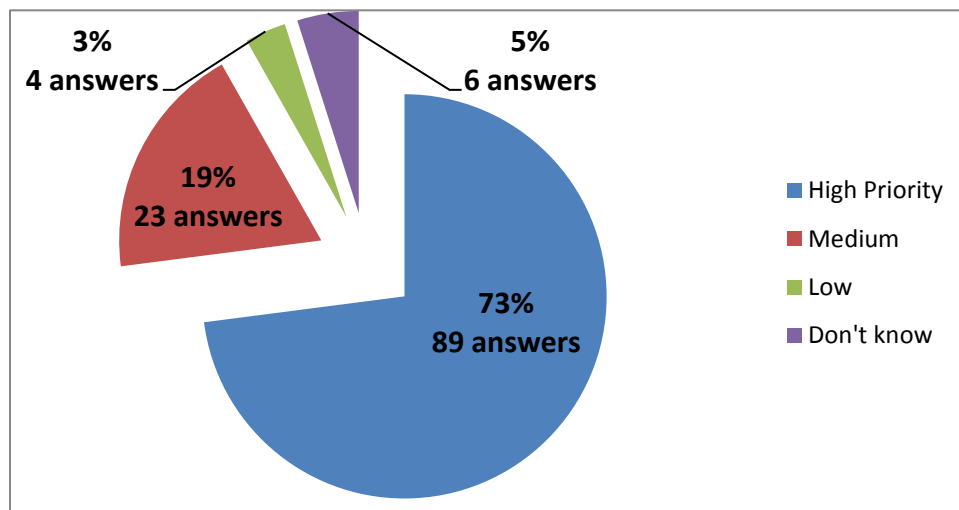
- mining pollution (124 answers)



- fish-farming (123 answers)



- solid waste (122 answers)



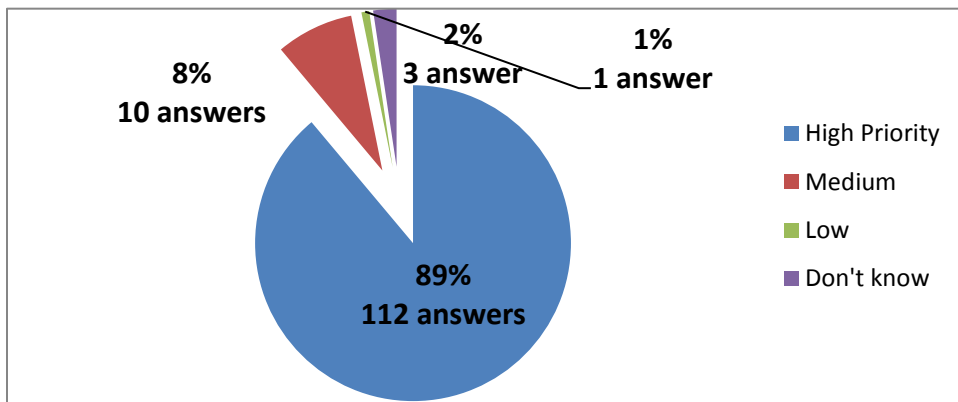
The analysis of the responses show that the most important sources for the reduction of pollution in Sevan Lake are domestic wastewater, mining pollution and solid waste.

MAKE AVAILABLE WATER IN QUALITY AND SUFFICIENT QUANTITY FOR THE USES

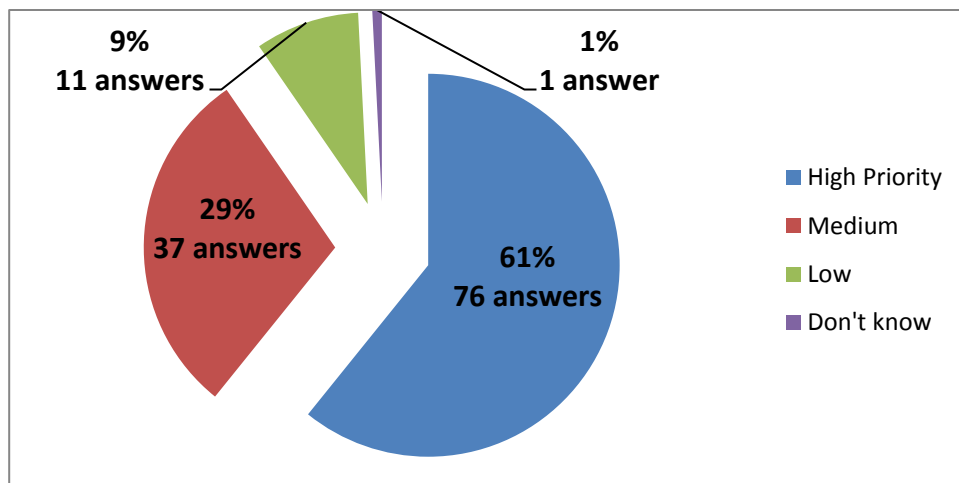
The questions raised here are related to the insurance of water quantity and quality availability for sufficient use. The stakeholders tried to mention the most important purposes of water use, and the availability of water resources, as per priority (where 1 is high priority, 2-medium, 3-low priority and 4- don't know).

What are the most important uses?

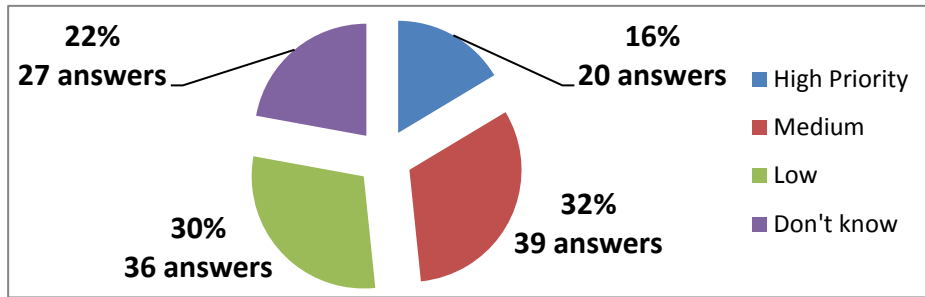
- **drinking water and water for domestic use (126 answers)**



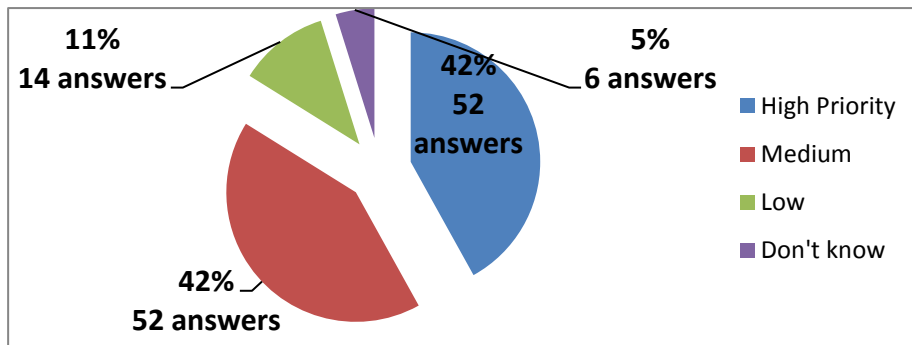
- **irrigation in agriculture (125 answers)**



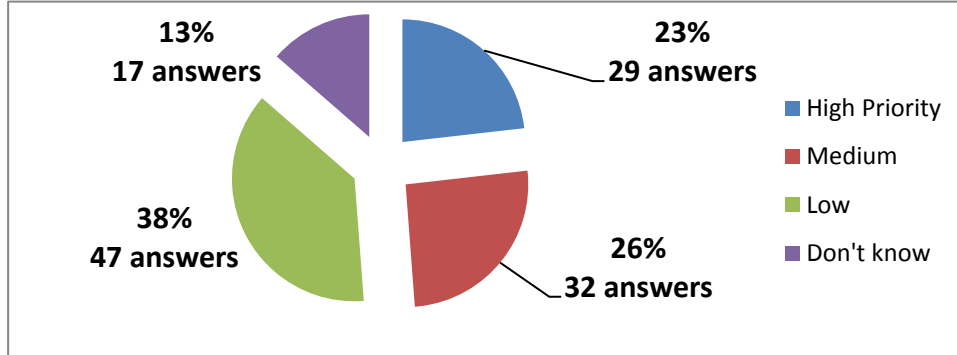
- water in industry (122 answers)



- water for recreation (124 answers)

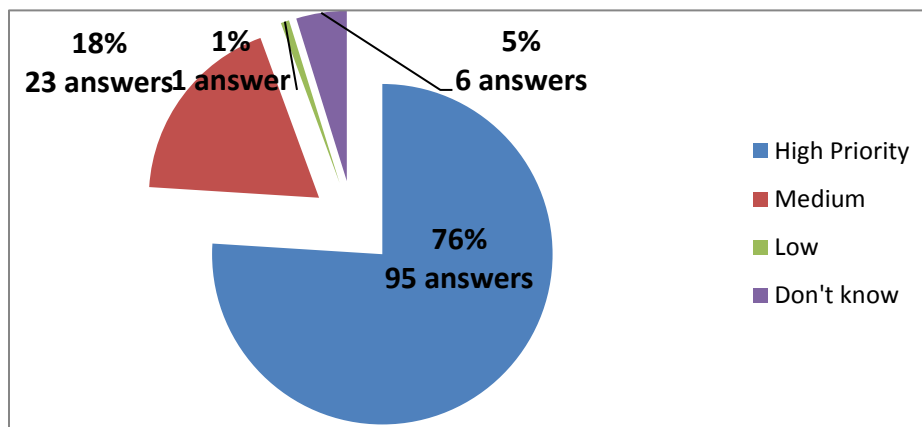


- water for energy production (125 answers)



- water for

- aquatic life and biodiversity (125 answers)



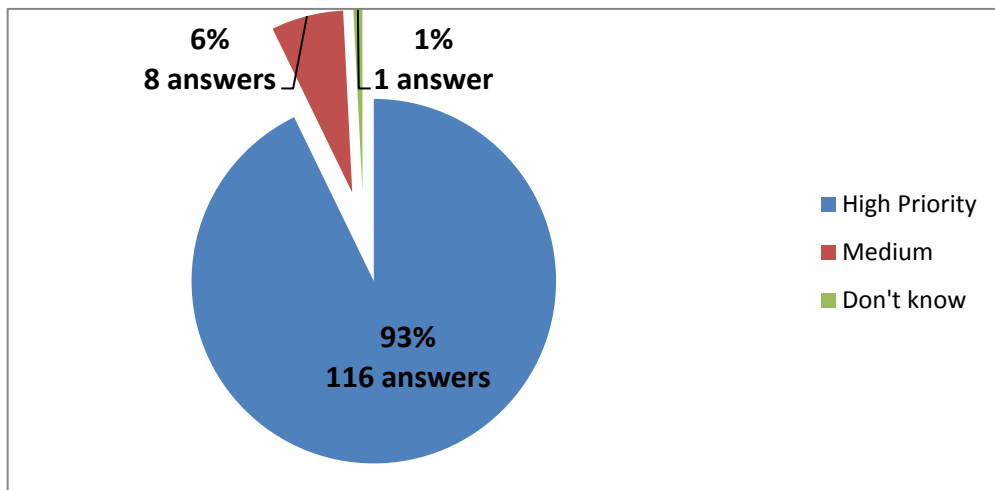
As per the received answers, the most important purposes are for drinking and domestic use, for aquatic and biodiversity, irrigation.

INSURANCE OF NECESSARY WATER QUALITY AND QUANTITY FOR USE/ EFFORTS (MEASURES) TO SHARE THE WATER RESOURCE AVAILABLE?

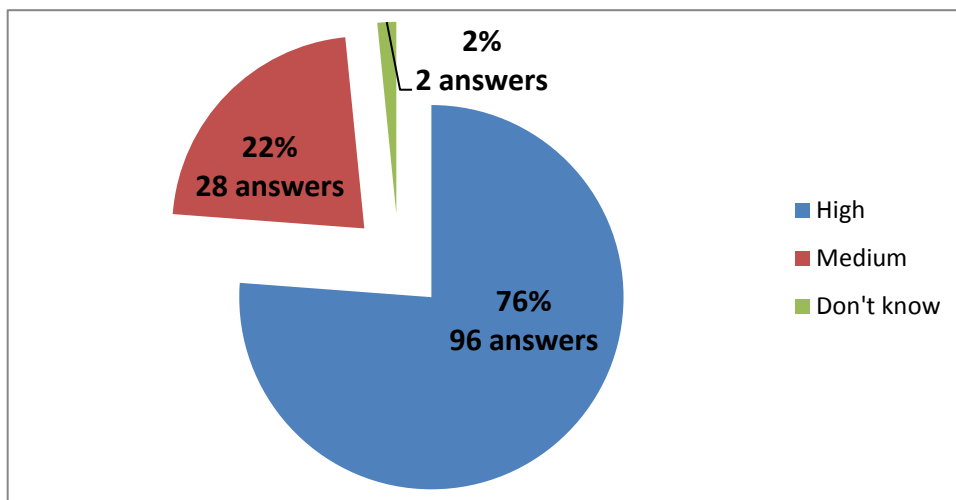
This group of questions relates to the measures taken for the insurance of water resources availability. The stakeholders prioritized those efforts for the Sevan Basin, where 1 is high priority, 2-medium, 3-low priority and 4 - don't know).

Prioritize the most important efforts to do to share the water resource available

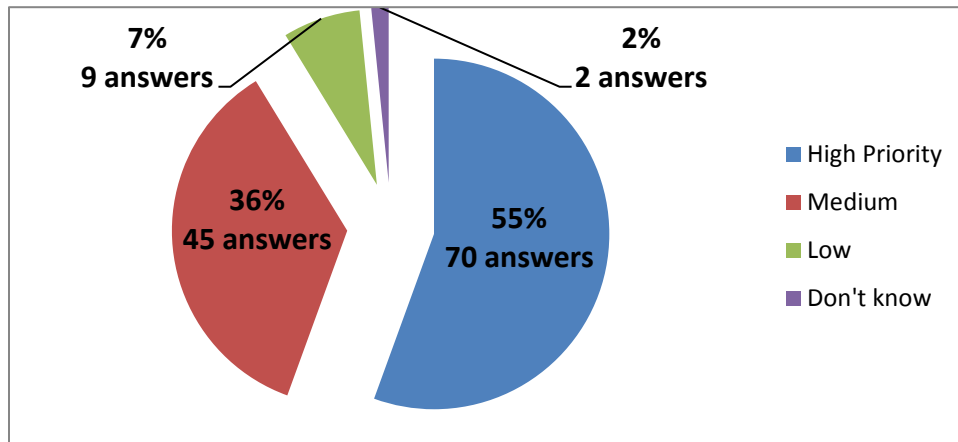
- **Protect drinking water (125 answers)**



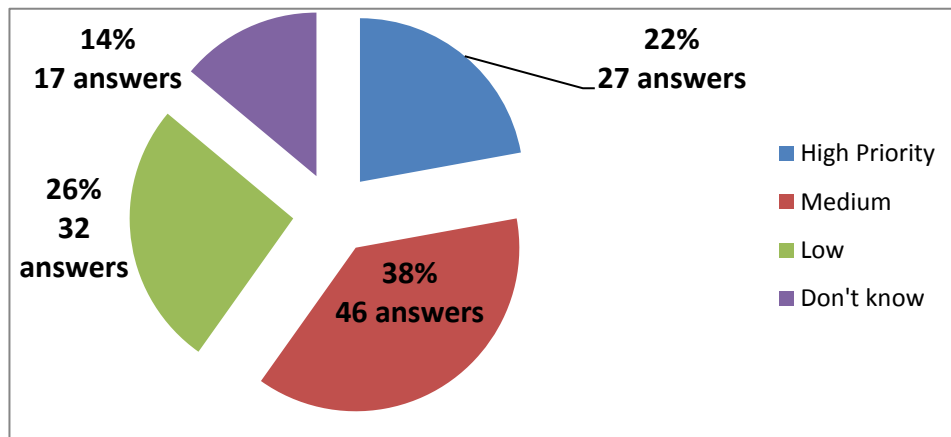
- **Protect aquatic life (126 answers)**



- **Ensure water for irrigation (126 answers)**



- **Ensure water for economic activities (122 answers)**



In

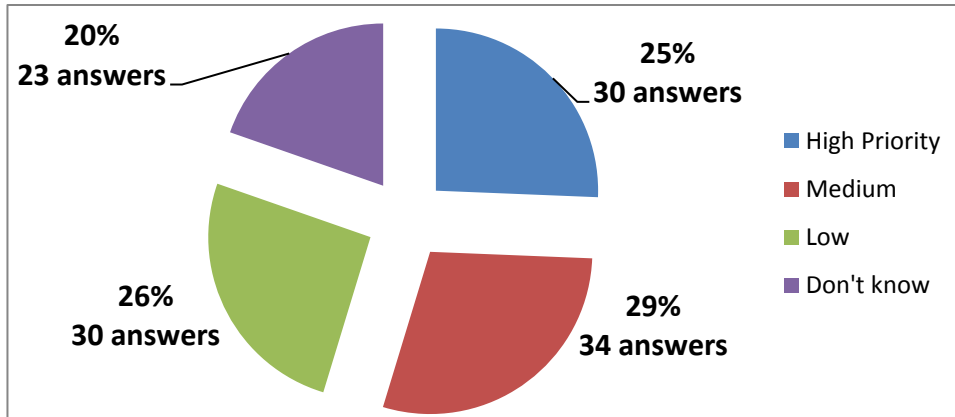
accordance with the given answers, the most important measure to be taken for ensuring the availability of water is the protection of drinking water, while other actions have less importance.

PREVENTION AND PROTECTION FROM FLOODING

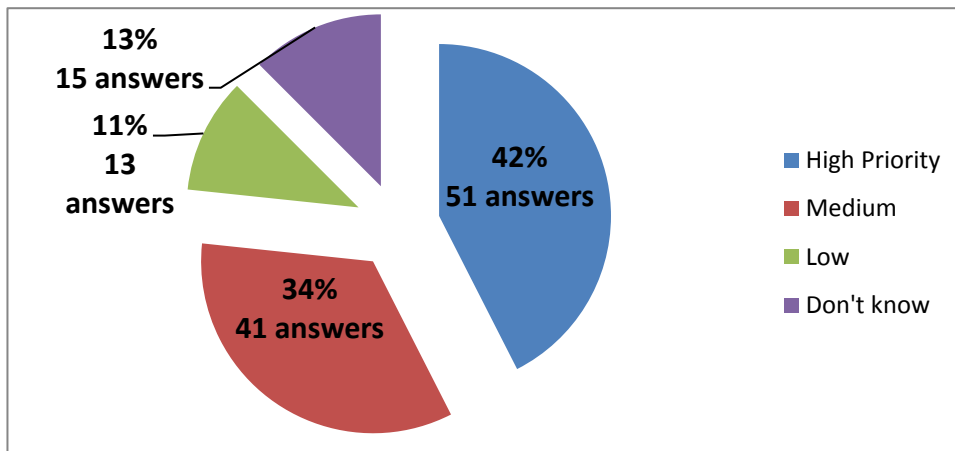
This question relates to the stakeholders' attitude towards the prevention and protection from floods and droughts.

The stakeholders have prioritized those measures, for the Sevan basin, where 1 is high priority, 2-medium, 3-low priority and 4 - don't know).

- **Prevention and protection from droughts (117 answers)**



- **Prevention and protection from floods (120 answers)**



As inferred from the stakeholders' responses, the majority of them does not consider flooding and drought an importance issue to address in Sevan basin.

WHAT MEASURES AND ACTIONS TO TAKE IN THE FUTURE? PLEASE GIVE YOUR OPINION

In this section of the questionnaire the stakeholders expressed their opinion on the measures to be taken in the future. These actions are respectively classified into the following main groups -health, quality, quantity, ecosystems, governance. As the questions included in this section are open, then during the analysis the received answers have been grouped in accordance with the logical similarity, being listed as per the order of priority.

- 1. Health (37 stakeholders)**

- Water quality insurance (monitoring, mobile laboratories), **(14 answers)**
- Construction of waste treatment stations (chemical and biological), **(11 answers)**
- Drinking water pipeline repair, adjustment **(8 answers)**
- Implementation of healthcare measure for the awareness raising purposes **(4 answers)**

2. Quality (44 stakeholders)

- Wastewater treatment, preventing wastewater leakage **(17 answers)**
- Regular water quality testing (acquisition of new testing equipment, public dissemination of the acquired results) **(12 answers)**
- Cleaning of Sevan Lake coastal areas **(9 answers)**
- Construction of new chlorine stations **(6 answers)**

3. Quantity (41 stakeholders)

- Insurance of Sevan Lake level sustainability, water extraction regulation, minimizing losses **(11 answers)**
- 24-hour water supply with the required pressure **(9 answers)**
- Minimization of water losses **(8 answers)**
- Insurance of irrigation water through irrigation networks **(6 answers)**
- Increase of water quantity observation points **(4 answers)**
- Construction of reservoirs **(3 answers)**

4. Ecosystems (33 stakeholders)

- Regulation of fish-farming in Sevan Lake (insurance of endemic fish fertility, banning of fish farming with artificial food) **(14 answers)**
- Cleaning of Sevan lake coastal areas. **(8 answers)**
- Minimization of human influence on the ecosystem **(5 answers)**
- Removal of sewage water from the environment **(4 answers)**
- Increase of eco-education level among the residents **(2 answers)**

5. Governance (45 stakeholders)

- Supervision of water use permit issuance (**18 answers**)
- Appropriate application of laws and legislative acts **(14 answers)**
- Imposition of penalties for pollution **(6 answers)**
- Installation of water measurement equipment **(5 answers)**
- Fair water distribution **(2 answers)**