Ministry of Environmental Protection and Agriculture of Georgia

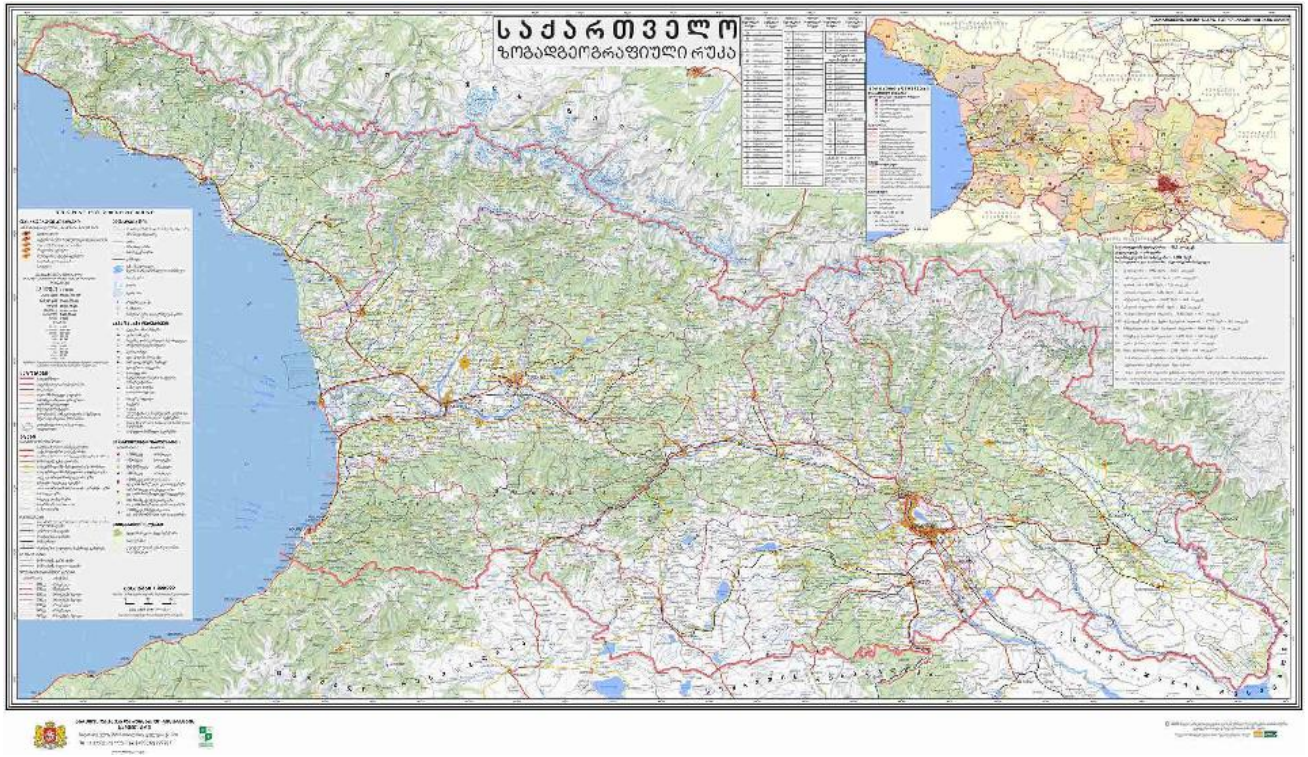
National Environmental Agency

Water Quality on Georgian Lakes and Rivers

Joint Task Force ICP Waters and ICP Integrated Monitoring
4-6 June 2019

Water resources

- Among various natural resources of Georgia water resources are one of the major national riches.
- More than 26 000 rivers and 850 lakes, 43 reservoirs, 734 glaciers and wetlands compose surface water resources in Georgia.



National Environmental Agency

Department of Environmental Pollution Monitoring

- Identification of different levels of pollution caused by anthropogenic factors, regular monitoring of atmospheric air pollution, surface water pollution, atmospheric precipitation pollution, chemical pollution of the soil and radiation pollution through observation points and field expeditions;

- Participation in the activities, concerning identification of extremely high environment pollution (including pollution caused by accidents);

- Preparation of yearbooks, bulletins, reviews, notes and other materials consisting of actual information on environment pollution.

Environmental Pollution Monitoring

Sampling

გარემოს
ეროვნული სააგენტო

Laboratory

Analytical Instruments

QA/QC

სსიპ „აკრედიტაციის ერთიანი ეროვნული ორგანო – აკრედიტაციის ცენტრი“

აკრედიტაციის მოწმობა

GAC-TL-0094

ადასტურებს, რომ

სსიპ გარემოს ეროვნული სააგენტოს
ატმოსფერული, ჰაერის, წყლისა და ნიადაგის ანალიზის
საგამოცდო ლაბორატორია

მდებარე: ქ. თბილისი, დავით აღმაშენებლის გამზ. 150,

შეფასდა და აკმაყოფილებს ეროვნული სტანდარტის

სსტ ისო/იეკ 17025:2010-ის მოთხოვნებს

აკრედიტებულია შემდეგ სფეროში: 1. სასმელი, ჩამდინარე, ზედაპირული, გრუნტის, ტბის, ზღვის წყლებში მძიმე მეტალების განსაზღვრა: (ალუმინი, დარიშხანი, ბარიუმი, კადმიუმი, ქრომი, სპილენძი, მანგანუმი (ჯამური), მოლიბდენი (ჯამური), ნიკელი, ტყვია, სელენი, სტრონციუმი, კობალტი და თუთია; 2. წყალბადის მაჩვენებლის-PH განსაზღვრა;
(იხ. „აკრედიტაციის სფერო“, დანართი 1).

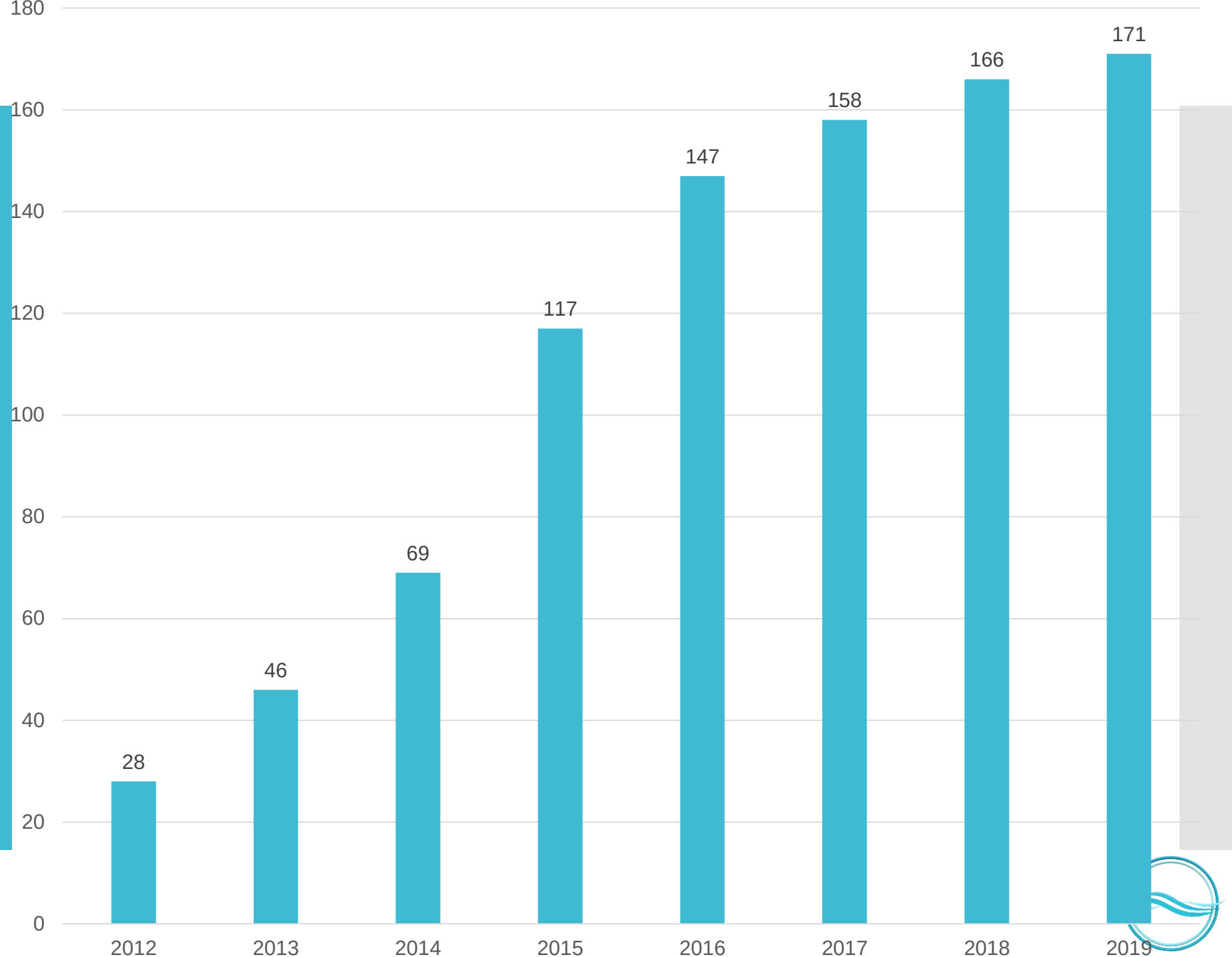
აკრედიტაციის ცენტრის
გენერალური დირექტორი

რეგისტრაციის თარიღი
23 დეკემბერი 2014 წ.
ძალაშია
23 დეკემბერი 2018 წ.

ბ.ა.

0186 თბილისი, ალ. ყაზბეგის გამზ. №42ა

Number of Water Quality Monitoring Points



Measured Parameters

- Physical-chemical parameters, main ions, biological oxygen demand, pH, heavy metals, organic pollutants;
- In some samples – microbiological pollution (total coliforms, E.coli and fecal streptococcus);
- In some rivers – hydrobiological (macro invertebrates) surveys.

Assessment and Reporting

nea.gov.ge
meteo.gov.ge

Water Pollution

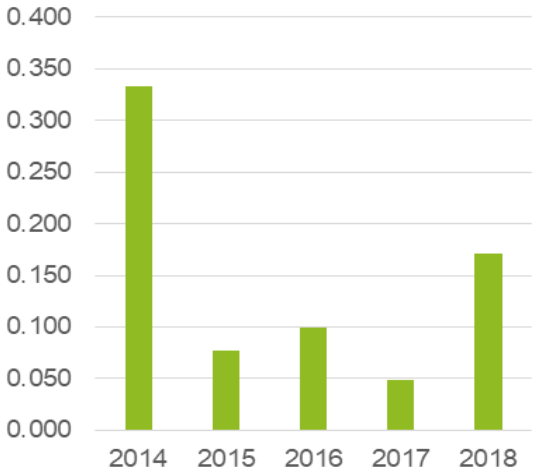
- The main pressures placed on surface water resources come from the household sector due to the discharge of untreated urban wastewater into the surface water bodies. Only 46.5% of the population are supplied with wastewater collection service and only three wastewater treatment plants (WWTP) (Gardabani, Adlia and Sachkhere) are operational in Georgia today. An additional 10 WWTP (Gardabani, Kutaisi, Chiatura, Marneuli, Gudauri, Poti, Mestia, Zugdidi, Ureki and Kobuleti) are under construction or planned to be constructed in 2017-2019, which will ensure the appropriate treatment of urban wastewaters.
- The agriculture and industry sectors also pose challenges to Georgia's water resources. The main problems related to agriculture are linked to the unsustainable use of water for irrigation and diffuse pollution caused by runoffs from the land (nitrates, phosphates and pesticides). Although, there are no contamination problems with phosphates observed, nitrogen compound levels (especially ammonium) are above the set limits.

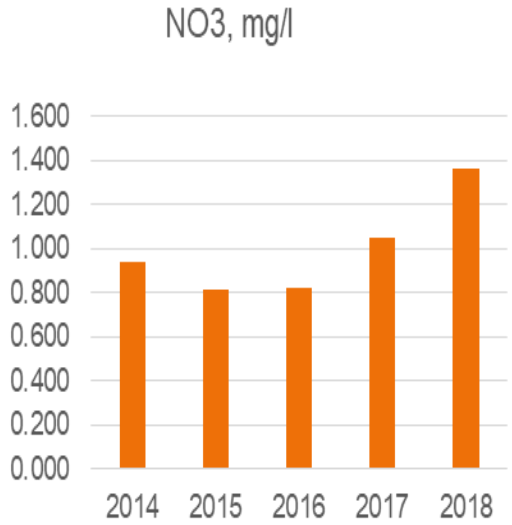
River Mtkvari (Kura) – Gachiani

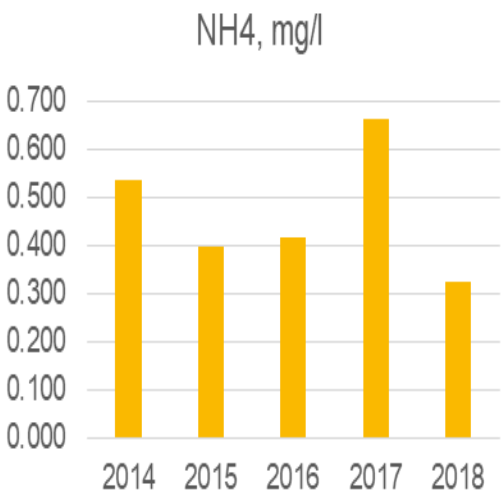
River Mtkvari (Kura) – Qareli

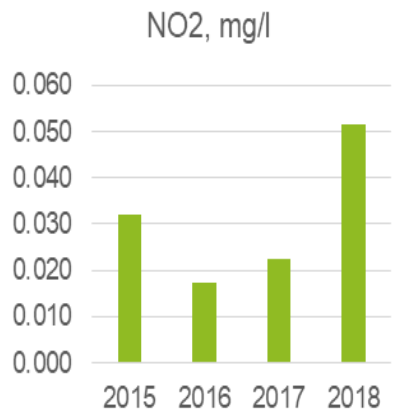
Most of the Kura River runs in the broad and deep valley between the Greater Caucasus and Lesser Caucasus mountains. About 174 kilometres of the river is in Turkey, 435 kilometres in Georgia, and 906 kilometres in Azerbaijan.

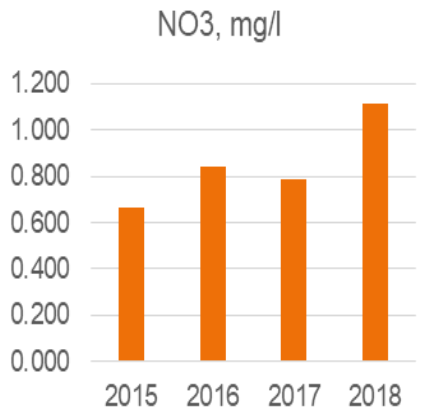
The monitoring point in Gachiani located downstream from Tbilisi and shows pressure on water quality from untreated municipal and waste water from the capital city

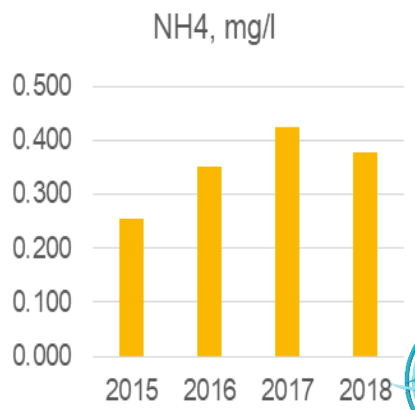




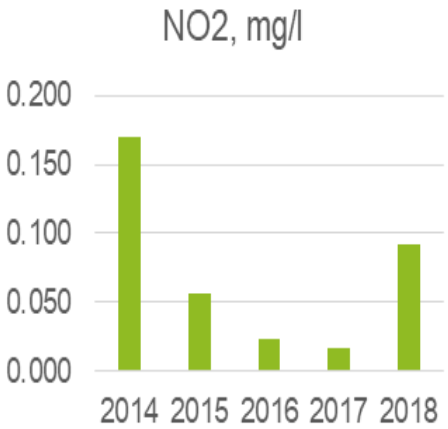


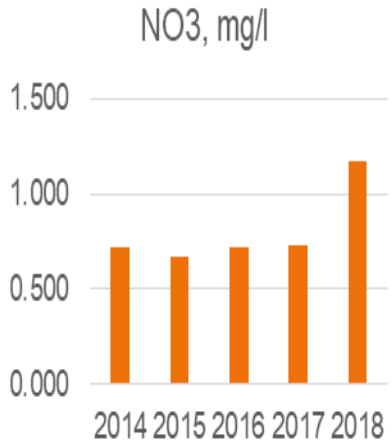


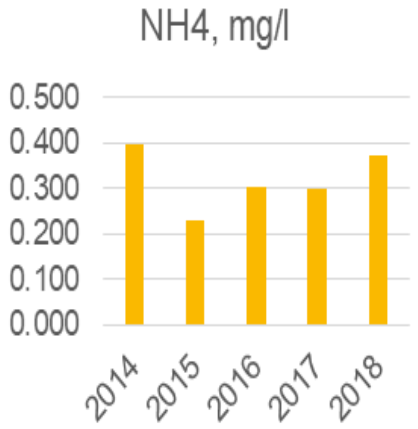




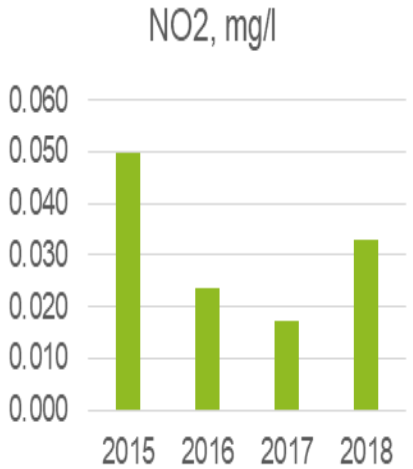
River Mtkvari (Kura) – Gori

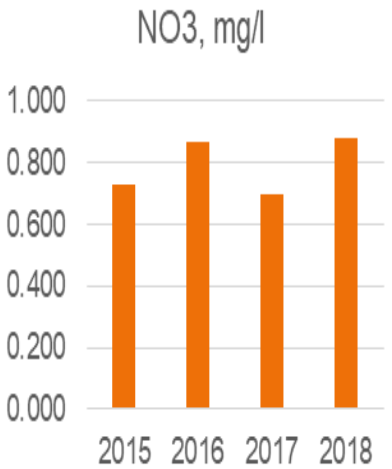


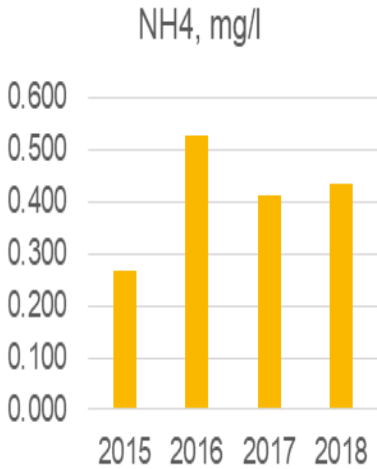




River Mtkvari (Kura) – Khashuti

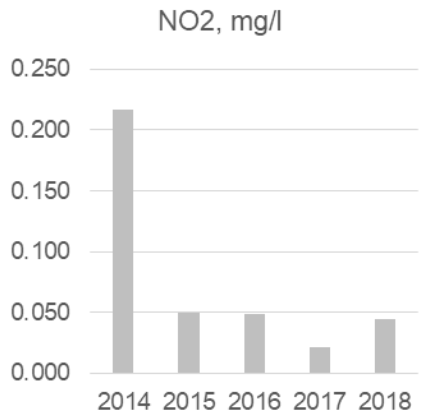


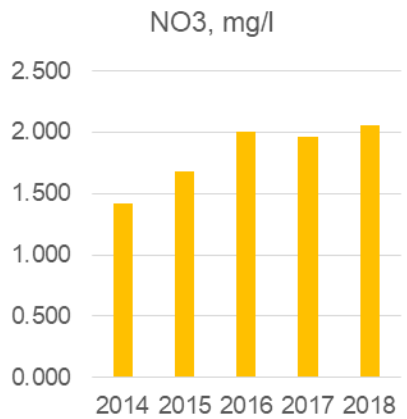


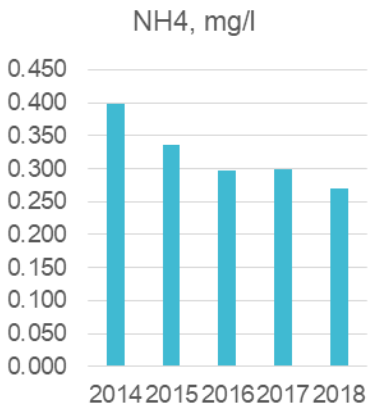


River Khrami – Red Bridge

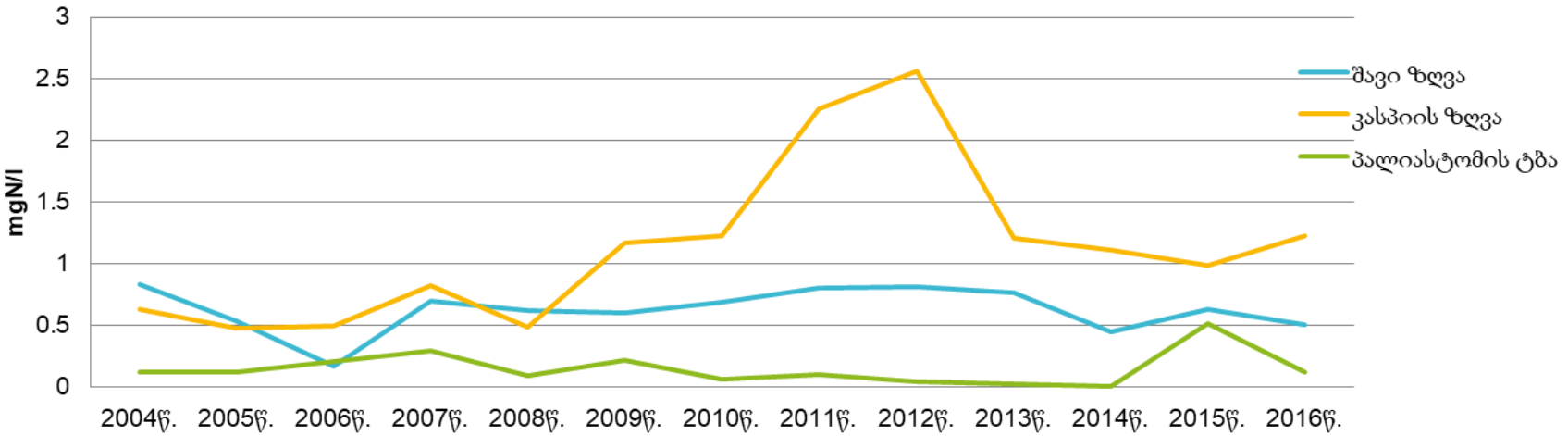
The Khrami is a 201 kilometer long river in eastern Georgia and western Azerbaijan, a right tributary of the Kura River. It originates in the Trialeti Range and flows into a deep valley. It is fed primarily fed by snow. Its tributaries are: the Debeda and Mashavera rivers. The Tsalka Reservoir and three hydroelectric power plants are built on the Khrami.



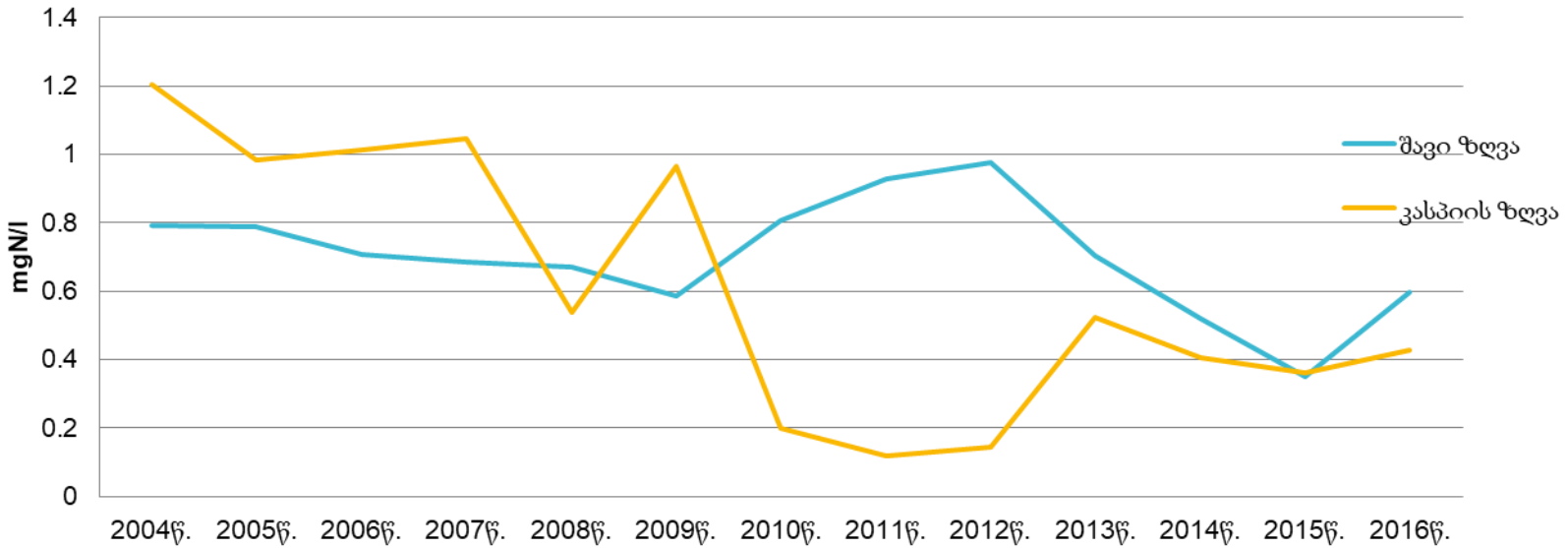




NO3 Mean Annual Concentrations in the rivers of Black Sea, Caspian Sea basins and Paliastomi Lake



NH4 Mean Annual Concentrations in the Black Sea and Caspian Sea Basiins



Third National Environmental Action Programme of Georgia

2017-2021

Long-term goal (2030) and three five-year targets have been identified in the water resources management:

- GOAL: To ensure good qualitative and quantitative status of surface and groundwater bodies as well as coastal waters for human health and aquatic ecosystems
- TARGETS:

Target 1. Development of an effective system of water resources management

Target 2. Reduction of water pollution from the point and diffuse sources and ensuring sustainable use of water resources

Target 3. Improvement of the water quality and quantity monitoring and assessment systems

THANK YOU FOR ATTENTION!