

Water pollution problems in the regions of Georgia

Z.Samkharadze

e-mail: zurab.samkharadze@ens.tsu.edu.ge

Ivane Javakhishvili Tbilisi State University

Chavchavadze aven. 1, 0179, Tbilisi, Georgia

Water is an important part of ecosystem, and its abstract and one-sided research is impossible without examining unity and interrelation of many factors determining properties and content of water.

Georgia is characterized with quite diverse geological construction which determines variety, level of development, content, etc of soils. Sediment rocks, in particular chalky limestones and crystal and withdrawn rocks are mostly spread. There are reddish stones, clayey lime sediments as well. There are also revealed reddish limestones, lime claystones and mergels. All these are reflected on the content of natural waters.

Those natural waters, on the beginning constructions of which no cleaning works are carried out and which supplies a population with drinkable water, shall be examined. Hence, it is clear that many water diseases may be spread in population. Today it is considered as the well-grounded opinion that a number of infectious diseases as typhoid fever, typhus, dysentery, cholera, brucellosis, etc may be spread via water.

The offered project envisages examining of the following parameters: 1) colour of water, 2) chemical index of water– pH; 3) oxygen of organic substances; 4) common stiffness; 5) concentration of ammonium - ions, 6) nitrate - ions, 7) sulphate - ions, 8) chlorides, 9) fluorides.

In the same samples the concentration of water-soluble ions of the following metals has been determined: 1) ferrous ions; 2) manganum ions; 3) aluminium ions; 4) potassium ions; 5) zinc ions; 6) lead ions. Furthermore, microbiological index *Escherichia coli* has been determined in the researchable waters.

The study results display chemical and biological content of natural drinkable waters in Georgia and its fitness for drinking.

The offered studies are important as for creation of ecological as healthcare image.