

PROBLEMS OF WATER QUALITY AND ACTIONS FOR IMPROVEMENT

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Water is one of the most important elements of the environment. The basic problems of ecology, which are connected to hydrosphere of the planet, are conditions of providing population with water, its quality and opportunities of its improvement. Until recently these problems did not stand so sharply, because of relative cleanliness of natural sources of water supply and their enough number. But the situation has sharply changed at the last decades. A considerable concentration of urban population and sharp increase of industrial, transport, agricultural, power and other anthropogenesis emissions have led to deterioration of water quality, to appearance of unusual chemical, radioactive and biological elements in sources of water-supply. That's why effective water supply for the population is the central problem of the modern life.

According to WHO – 80 % of all illnesses in the world are connected to unsatisfactory quality of potable water and infringement of sanitary, hygienic and ecological norms of water supply. Nowadays over 2,5 millions persons suffer from the diseases connected with usage of pollute and infected water.

And Ukraine is not an exception. High level of technological loadings on reservoirs and use of out-of-date technologies of preparation of potable water in Ukraine do not allow to provide the population with potable water of guaranteed quality, it leads to getting a considerable amount of inorganic and organic pollution into the potable water, and their joint action on an organism of the person causes real threat to health of the nation, especially in conditions of radiating loading.

Besides potable water from surface reservoirs is potentially unsafe in the virus attitude, because the technology of its preparation doesn't guarantee the removal of viruses from water. Underground waters of Ukraine (in particular artesian) don't answer the quality of potable water in the majority of regions. It is connected not only with nature conditions of their formation, but also with anthropogenesis pollution and that's why it requires clearing.

Poor-quality water in Ukraine is one of the reasons of the distribution of such diseases, as a stomach ulcer, bilious-stone illness, illnesses of bodies of breath, a stenocardia, a heart attack of myocardium, a cholecystitis, which are widely observed in Ukraine last years. Only for the last 10 years numerous cases of diseases connected with the water factor and, in particular, with potable water were registered. For example, cholera, belly typhus, a virus hepatitis A, a dysentery, a salmonellas and so on.

Unfortunately while having a lot of problems with water resources my country doesn't realize strict goal programs for preserving and economical using of water supply. Ukrainian government elaborated a lot of national programs and projects for preserving and development of water sector. But lack of the budget money prevented the realization of all these programs and caused different crisis situations in water sector of Ukraine during the last years.

Problem of water supply in Ukraine (like in other countries) doesn't exist in isolation. It is connected with different ecological and economic problems. Nowadays there are such laws about water supply in Ukraine as: "Law about ecological protection" and "Water code of Ukraine". These laws establish main principles about the usage of water sources. Water code establishes a basis of water legislation in Ukraine. Now the law about potable water is worked out, legislation and regular base are reformed and expanded. But in spite of all programs, rules and laws only a few concrete measures were done. There are such reasons of this situation:

- The development and improvement of legislation doesn't connected with elaboration of the economic mechanism for the realization of ecological strategy.
- Lack of money is the result of bad organized system of ecological funds. Money is lost in different funds and not always used for the right purpose. There is no incentive mechanism for effective using of the divided funds.
- Nowadays there is no support in economic and social development politics, in national and region programs, in public opinion.

So Ukraine has a lot of problems with water supply and diseases connected with water.

There are some prime actions for improvement of quality of potable water in Ukraine:

1. Legislative and legal actions:
 - To develop and accept of the Law of Ukraine " About potable water ";
 - To continue improvement of legislation and regular base about the protection of water sources and its ration usage;
 - To develop effective laws about responsibility for the water quality and about the reduction of water pollution;
 - To develop the mechanism of the execution of ecological laws, control of the effecting formation, transformation and usage of ecological funds;
 - To develop and introduce state standards on sources of economic-drinking water supply and potable water;
 - To develop legal and normative base of alternative water supply.
2. Technological and technical actions:
 - To develop and introduce new and perfection of existing industrial technologies of water clearing in practice of water supply;
 - To develop and introduce constant advanced system of monitoring of water quality in sources of water supply and potable water;
 - To develop and introduce new effective filtering materials and so on.
3. Research methods:

- To develop state program of scientific researches and research-design development on priority directions of technologies of clearing and improvement of quality of potable water;
- To develop national and regional programs about protection of water sources and its ration usage;
- To develop state program of scientific researches " Potable water and health".