Water and sanitation: solutions in the name of life

Editorial by Roman Lebed
British Broadcasting Corporation (BBC) Ukraine

Freshwater is only 2.5% of the total volume of water resources on earth. According to United Nations-Water, an inter-agency mechanism established in 2003, each person needs 20-50 litres of safe freshwater daily to ensure their basic needs for drinking, cooking and cleaning.

The World Health Organization says that one person in six worldwide, almost 900 million, doesn’t have access to this amount of safe freshwater and that 2.5 billion people, including almost a billion children, live without basic sanitation. According to the Water Supply and Sanitation Collaborative Council, every 20 seconds a child dies from poor sanitation.

In the European Region access to an improved water supply and sanitation has in general increased, resulting in an 80% decrease in diarrhoeal disease in young children from 1995 to 2005. However, more than 50% of the rural population in some eastern countries still live in homes that are not connected to a safe drinking-water supply.

The problem also exists in cities and this year, World Water Day marked it with the slogan “Water for Cities”. The growing urbanization of the world population – 3.3 billion currently living in cities – raises urgent problems, including water supplies and sanitation. Over 800 million people live in urban slums where lack of sanitation and safe drinking-water lead to serious health problems, including cholera, diarrhea and malaria.

The United Nations Water Annual Report 2009 says that urban water problems can be solved as technology, knowledge and experience are available. Solutions are mostly based on the design and maintenance of water supply, sewerage, and waste-water systems. Affordability of water is key to providing drinking-water for everybody.

It’s time for journalists to get involved. A strong testimony of the threat to people’s health could prompt concrete solutions: that is why we have dedicated this issue of the WHY newsletter to water and sanitation. Although freshwater is only 2.5% of the total volume of water on earth, it represents 70% of the human body, and is our source of life. We must remember this and help others to become aware and to act.
Clean water still a luxury in Ukraine

You find headlines like this in the local press. WHO estimates that 25% of the country’s population is at risk of ill health from unsafe drinking-water. 4.6 million people get their water from local sources, which do not meet regulatory requirements. Contaminated water can cause gallstones, stomach ulcers, hepatitis A, typhoid and other diseases.

“I never drink tap water at home”, says 24 year old programmer Bogdan. He lives in a new district of Kyiv, but spends part of his earnings to buy bottled water. Water is polluted even in the capital, because of an outdated water supply system dating back 50 years. Last year new standards were adopted by the government, but water supply companies are unable to comply with them and the system remains obsolete.

“The greatest concern is that a lot of attention is paid to the development of technologies for the purification of water «on tap» by consumers, but the question still remains about the protection of water sources and wastewater problems”, says Hanna Tsvetkova, from the nongovernmental organization «Mama-86».

However, Hanna Tsvetkova notes some positive changes. In 2010 the government developed new health rules, requiring stronger control over the water quality; they also approved a budget to improve water quality by 2020, in the framework of the project Drinking-water in Ukraine, which is gaining a lot of public attention.

To further improve water and sanitation, experts advise implementing key reforms in housing, systematically replacing water pipes, introducing water safety plans as recommended by WHO, performing independent audits of prices and generally raising awareness on water and health.

THE VESTIGES OF THE MIDDLE AGES IN THE HEART OF EUROPE

“This well has been here for 50 years. The water has been used for children’s drinking and cooking needs for a long time. Research has now shown that this water contains nitrates,” says Valentina Nazarenko, director of the kindergarten in Vertiivka, a village about 100 kilometers from Kyiv.

The well is about ten meters deep with a bucket on a rope to bring water up. Such archaic settings are still the only source of water for many families in rural areas of central and eastern Europe. According to the National Security and Defense of Ukraine, 70% of groundwater contains chemicals exceeding acceptable levels and up to 75% of rural residents use shallow wells or individual water sources.

In 2010, the government issued a regulation on well certification, which focused the attention of the entire community on the problem. “The government must act wisely and promptly. This is about life, so I call on people in each region to submit water samples, helping us to ensure safe water”, said Prime Minister Mykola Azarov. Preliminary results from the chief sanitary officer Gennady Ryzhkov indicated that 40% of wells in Ukraine do not meet sanitary standards.
The challenge of water safety under extreme weather events

By WHO/Europe

Coping with the growing needs of water and sanitation services in cities is one of the most pressing issues of this century. A new Guidance on water supply and sanitation in extreme weather events was presented on the occasion of this year’s World Water Day “Water for Cities”. It describes the effects of climate-related events on the management of urban water resources and illustrates ways to minimize the impacts and health risks.

The number of extreme weather events in Europe increased by 65% between 1998 and 2007, with overall economic losses doubling to almost €14 billion from the previous decade. Under extreme precipitation and drought, water and wastewater services can be damaged or fail, resulting in service denial or contamination of the drinking-water, with severe health impacts, including gastrointestinal diseases, dermatitis and conjunctivitis.

In a heavily urbanized Europe, with two thirds of inhabitants living in cities, water supply and sanitation services have to prepare for the consequences of extreme events. This would contribute to achieve the Parma target committing Ministers to provide safe water and sanitation to each European child by 2020.

Under the Protocol on Water and Health, WHO is promoting the introduction of water safety plans. They require risk assessment, prevention, preparedness and anticipation, as well the coordinated work of meteorologists, hydrologists, geohydrologists and health workers. To minimize the impact of floods and drought, the design and maintenance of water supply, sewerage, and waste-water systems need to be weather-sensitive.

The problem in the village of Vertiivka was solved with the help of civil society. A twenty-meter deep hole was dug in the grounds of the kindergarten. Since water has iron impurity at that depth, purification filters were installed. Now the village children have clean water in sufficient quantity, but this is a single case only. As a long-term general solution, the entire community needs to receive continued access to drinking-water posing no health threats and traditional wells should be replaced with more modern services.
Access to water is of utmost concern
by Arpi Harutyunyan, ArmeniaNow online (Armenia)

More than 70% of community settlements in Armenia are connected to a centralized supply of drinking-water. About one in three enjoy in-home drinking-water supplied through pipelines. Residents in the remaining communities get water from mountain sources in traditional ways.

The State Committee for Water Industry explains that resources are not sufficient to provide a continuous water supply to all. And while villagers still employ 19th century collection methods, even residents of Yerevan suffer from a lack of an all-day water supply.

The water infrastructure created in Soviet times was large and technically powerful. However, it collapsed with the collapse of the system. A new Water Code was adopted in 2002 improving the mechanisms of water resource management. A national water policy and program have also been developed for water basin management.

Water abounds, but still needs protection
by Mette Sikjaer, Tandplejeren (Denmark)

Sea on all sides and thousands of lakes inland, the nearest water layer is never far away for a Dane, and in most Danish homes, pure drinking-water flows from the taps. However, civil society is urging politicians and the public to give higher priority to the protection of the country’s water environment as more and more water wells are closed due to pollution from fertilizers used in agriculture.

There is an ongoing debate in the country between various interests, including environmental, health, and agricultural. Recently the government took decisions to face immediate economic challenges, which also meant postponing the implementation of the European Union’s Water Framework Directive. While this choice can be grounded in the long-term protection of environmental interests, is it fair to let the next generation worry about taking our pesticides out of their drinking-water?

All we need is water
by Adeline Marcos, Spanish Scientific News Agency (SINC) (Spain)

As a Mediterranean country, Spain suffers from a scarcity of water, especially in the south and east of the country. Intensification of water demand in the cities (partly due to tourism), crop irrigation and climate change have increased droughts.

Although Spain is a developed European country, there are still problems with the quality of its drinking-water. The main reasons are lack of water treatment, sewage disposal and too much pressure on existing resources. A 2005 Greenpeace report showed that only 11% of Spanish rivers and 16% of aquifers are of an acceptable quality according to European Union standards. Human action has seriously worsened our natural resource.

Water desalination and sewage water recycling can contribute to water sustainability. Spain is the fourth biggest producer in the world of desalinated water. For the experts the first step to address Spain’s water scarcity is to raise awareness of each person’s responsibility of their own water consumption.

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