

Module 14

Regulations on Water

Summary

This module provides information on EU and UN regulations concerning drinking water quality and the human right to have access to clean drinking water and sanitation. A number of international legislative acts and initiatives about these principles exist. The EU legislation is binding for all Member States, which the Bulgarian legislation is a part of. The Millennium Development Goals (MDGs) that also concern access to drinking water and sanitation are presented and discussed. People need to know their rights and obligations according to the common legislation at the national and international level.

Objectives

Pupils gain insight into the structure of regulations on the national and international level, and gain some knowledge about different directives. They are informed about the MDGs and their right to have access to clean drinking water and sanitation.

Keywords and terms

Water quality, EU Directives, Protocol on Water and health, Human rights, MDGs

Preparation/materials

| Materials | Preparation |
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| Information on national and international regulations on water | Research on the Internet, cooperation with the water supplier |

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Introduction

Drinking water is water that is pure enough to be consumed or used with a low risk of immediate or long-term harm. In most developed countries, the water supplied to households, commerce and industry is in concordance with drinking water standards, although only a very small proportion of the delivered water is explicitly used for drinking or preparation of food.

Over large parts of the world, humans have inadequate access to water with good quality and use sources contaminated with disease vectors, pathogens or unacceptable levels of toxins or suspended solids. Drinking or using such water in food preparation leads to widespread acute and chronic illnesses and is a major cause of death and misery in many countries. Reduction of waterborne diseases is a major public health goal in developing countries. The quality of drinking water is a powerful environmental determinant of health. Assurance of drinking water safety is fundamental for the prevention and control of waterborne diseases.

1. Water Framework Directive (2000/60/EC)

The European Union (EU) has established a framework for water protection and management in all member states of the EU. This directive is valid for (European) inland surface waters, groundwater, transitional waters and coastal waters. The Water Framework Directive (WFD) has a number of objectives, such as preventing and reducing pollution, promoting sustainable water usage, environmental protection, improving aquatic ecosystems and mitigating the effects of floods and droughts. Its ultimate objective is to achieve “good ecological and chemical status” for all waters by 2015.

The river basin’s management plans under this directive aim to:

- prevent deterioration, enhance and restore bodies of surface water, achieve good chemical and ecological status of such water by 2015 at the latest and reduce pollution from discharges and emissions of hazardous substances.
- protect, enhance and restore the status of all bodies of groundwater, prevent pollution and deterioration of groundwater, and ensure a balance between groundwater abstraction and replenishment.
- preserve protected areas.

The EU encourages all stakeholders of all Member States to participate in the implementation of this Framework Directive.

2. Drinking Water Directive (98/83/EC)

The European Council Directive deals with the quality of water intended for human consumption. Its intention is to protect human health by initiating health and purity requirements, which must be met for drinking water provided to consumers. It applies to water meant for human consumption apart from mineral and table waters, and waters which are used for medicinal products. Mineral, table water and medicinal water are regulated in a separate directive.

Member States’ responsibilities:

- Member States ensure that such drinking water does not contain any concentration of microorganisms, parasites or any other substance that constitutes a potential human health risk and meets the minimum requirements (microbiological and chemical parameters and those relating to radioactivity) laid down by the Drinking Water Directive.
- They take any other action needed in order to guarantee the health and purity of water intended for human consumption.

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- Member States lay down the parametric values corresponding at least to the values set out in the Directive. If parameters are not set out in the Directive, and if necessary to protect health, limit values must be performed by the Member States themselves.
 - The Directive requires Member States to regularly monitor the quality of water intended for human consumption by using the methods of analysis specified in the Directive or equivalent methods. For this purpose, they determine the sampling points and draw up monitoring programmes. Where parametric values are not attained, the Member States concerned ensure that the corrective action is taken as quickly as possible in order to restore water quality.
 - Regardless of compliance, or otherwise with the parametric values, Member States prohibit the distribution of drinking water or restrict its use and take any action needed where that water constitutes a potential human health hazard. Consumers have to be informed of any such action.
 - The Directive provides the Member States with a range of exemptions from the parametric values up to a maximum value, given that:
 - the exemption does not constitute a human health hazard;
 - there is no other reasonable means of maintaining the distribution of drinking water in the area concerned;
 - the exemption must be as restricted in time as possible and not exceed three years (it is possible to renew the exemption for two further three-year periods).
 - From these provisions, Directive Member States may exempt water intended for human consumption from an individual supply providing less than 10 m³ a day as an average, or serving less than 50 persons, unless the water is supplied as part of a commercial or public activity. Monitoring the quality of those drinking waters has to be decided by the Member States concerned.



EU Member States have to ensure that water intended for human consumption does not contain any concentration of micro-organisms, parasites or any other substance which constitutes a potential human health risk, and meets the minimum requirements (microbiological and chemical parameters and those relating to radioactivity) laid down by the Directive.

3. Nitrate Directive (91/676/EEC)

The Nitrate Directive aims to protect waters in Europe by preventing nitrates from agricultural sources to pollute groundwater and surface waters through encouraging the use of good agricultural practices. The Nitrates Directive is an integral part of the EU Water Framework Directive (WFD) and is one of the key instruments for protecting water against agricultural pressures. It was published in 1991.

The Nitrate Directive request the EU Member States to:

- identify surface water and groundwater sources affected by pollution, or that are at risk of being polluted, based on procedures and criteria cited in the Directive. Specifically when the concentration of nitrates in ground-water or surface water reaches 50 mg/l, or when the surface water is eutrophic or is at risk of being so.
- designate vulnerable zones, which are known areas in their territories which drain into the identified waters. The Nitrates Directive provides a possibility for Member States to be exempted from the requirement to designate vulnerable zones if the action programmes are applied to their entire national territory.

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- establish a code of good agricultural practice to be implemented by farmers on a voluntary basis.
 - set up compulsory action programmes to be implemented by all farmers who work in vulnerable zones. These programmes must contain the measures, which aim to limit the land application of mineral and organic fertilisers containing nitrogen, as well as land application of livestock manure.



The Nitrate Directive is one of the key instruments for protecting water against agricultural pressures, in which the application of the amount of nitrogen fertiliser and the timeframe on agricultural fields is regulated.

4. Directive on the protection of groundwater against pollution and deterioration (2006/118/EC)

This directive is a “daughter directive” to the WFD, and sets out general provisions for the protection and conservation of groundwater. Measures to prevent and control groundwater pollution are stipulated and should be adopted. These include criteria for assessing good groundwater chemical status, for the identification of significant and sustained upward trends, and for the definition of starting points for trend reversal. Quality standards for nitrates, plant protection products and biocides should be set as community criteria for the assessment of the groundwater sources’ chemical status. With the nitrate directive, consistency should be ensured, which is also related to human and animal waste.

The EC Groundwater Directive sets binding EU-wide limits. The Directive uses the term "quality standards" of 50 mg/l for nitrate, and 0,1 µg/l for individual substances; 0,5 µg/l for the overall pollution load for active pesticide ingredients and biocides. These levels derive from the EC Drinking Water Directive.

5. Protocol on Water and Health

In the European Part of the UNECE region, an estimated 120 million people do not have access to safe water and adequate sanitation; resulting in many cases of water related diseases, such as cholera, dysentery, coli infections, and viral hepatitis A. Safe water and better sanitation could prevent over 30 million cases of water-related disease each year in the region. The 1999 Protocol on Water and Health (PWH) was negotiated with this in mind.

The main aim of the PWH is to protect human health and well being by better management, including the protection of water ecosystems, and by preventing, controlling and reducing water-related diseases. To meet these goals, its parties are required to establish national and local targets for the quality of drinking water and the quality of discharges, as well as for the performance of water supply and wastewater treatment. Another requirement is to reduce water related diseases. Each party has the obligation to establish and publish its national targets and its respective target dates for each area within 2 years of becoming a party.

22 countries ratified or accepted the PWH, 14 other countries signed it in 1999, but no ratification followed. For those countries that ratified the PWH, the Protocol is binding and obligations should be fulfilled.

6. Human right access to safe drinking water and sanitation

Human rights are basic rights and freedoms to which all humans are entitled, and which are essential for human existence; access to water and sanitation are among them. This fact is now officially recognised by the UN Human Rights Council. In the past, human rights discussions have largely ignored water and especially sanitation. But after years of fierce debate, the Human Rights Council adopted the resolution (A/HRC/15/L.14) by consensus on 30th September 2010, affirming that access to safe drinking water and sanitation is a human right.

In order to realise the human right to have access to safe drinking water and sanitation, there are certain criteria to be met:

- **availability:** UN appeals for at least 50 l/p/d of safe water to meet personal needs;
- **accessibility:** Services must be available within or in the immediate vicinity of each household, as well as schools, workplaces, health-care settings and public places. Access must be ensured in a sustainable manner;
- **quality/safety:** the human right to water and sanitation means that water and sanitation have to be safe for human health;
- **affordability:** the total expenses for water and sanitation of a household should not be more than 3% (recommendation of the UNDP) of the average income of a household in their geographical area;
- **acceptability:** the technologies offered to the population and ethnic/religious groups have to be culturally acceptable and enter without contradicting their beliefs and values;
- **non-discrimination:** no group of the population would be discriminated on the principles of origin, religion, gender, as well as age or health status, geographical location or level of urbanisation of the territory;
- **participation:** the whole population has the right to participate in decision-making connected to water and sanitation services; consumers have the right to information about the quality of services, health and financial effects, etc.;
- **accountability:** the water and sanitation suppliers, and respective national and local authorities have to report on their expenses, effectiveness and safety of the services to the tax payers and general population;
- **impact:** the quality of water and sanitation services directly affects quality of life, health status of the population, especially children; furthermore, it is decisive for the attractiveness of the business environment;
- **sustainability:** water and sanitation services have to be provided to the population and businesses without compromising the chance of next generations to meet their needs safely; the needs of all living creatures and nature as a whole have to be respected

The Special Rapporteur of the UN emphasises particularly on practical solutions with regard to the implementation of the human right to safe water and sanitation. And the resolution calls on States to ensure enough financing for sustainable delivery of water and sanitation services.



Mrs. Catarina de Albuquerque is the first UN Special Rapporteur (independent expert) on the right to safe drinking water and sanitation
Source: <http://acnudh.org/en/2012/02/un-expert-on-right-to-safe-drinking-water-and-sanitation-in-first-mission-to-uruguay/>

7. Millennium Development Goals (MDGs)

In 2002, at the World Summit on Sustainability in Johannesburg, the United Nations adopted 8 MDGs. The MDGs, a series of targets for reducing social and economic ills by 2015, includes the goals of halving the proportion of people who cannot reach or afford improved drinking water and halving the number who do not have basic sanitation. The term access to “improved” water and sanitation is defined by the UN and does not explicitly mention that the quality of the water and sanitation systems is safe.

Some 1,7 billion people have gained access to improved drinking water since 1990. Yet 884 million people worldwide still do not have access to improved drinking water and 2,6 billion people lack access to basic sanitation services, such as toilets or latrines. Important developments of MDGs that are indirectly linked to reaching the goals related to water include: The world has missed the 2010 target for biodiversity conservation. Based on current trends, the loss of species will continue throughout this century. Slum improvements are failing to keep pace with the growing number of urban poor. The absolute number of slum dwellers keeps rising, with some 828 million people living in slums today, even though the share of the urban population living in slums is declining.

The world will meet or even exceed the drinking water target by 2015 if current trends continue. By that time, an estimated 86 per cent of the population in developing regions will have gained access to improved sources of drinking water, up from 71 per cent in 1990. Four regions: North Africa, Latin America and the Caribbean, East Asia and South-East Asia have already met the target.



Kofi Annan, UN Secretary General at Earth Summit, 2002

Source:

http://www2.lse.ac.uk/newsAndMedia/news/archives/2002/Kofi_Annan_at_LSE.aspx



Jan Prank, Secretary-General's Special Envoy for the World Summit on Sustainable Development (WSSD)

Source:

http://berkeley.edu/news/media/releases/2002/08/30_summit.html, Yogi Hendlin photo

Although progress was made primarily in rural areas, those areas still have remaining disadvantages. Globally, eight out of ten people who are without access to an improved drinking water source live in rural areas. For sanitation, the 2015 target appears to be out of reach since half of the population of developing regions lacks basic sanitation. At the current rate of progress, the world will miss the target of halving the proportion of people without access to basic sanitation, such as toilets or latrines. In 2008, an estimated 2,6 billion people around the world lacked access to improved sanitation. If the trend continues, that number will grow to 2,7 billion by 2015. Wide disparities also exist by region, with sub-Saharan Africa and South Asia

continuing to lag behind. Recent data shows 69 per cent and 64 per cent of their populations still lack access to improved sanitation, respectively. The gap between rural and urban areas remains huge, especially in South Asia, sub-Saharan Africa and Oceania.

8. Exercises and Questions

- What is the difference between the Water Framework Directive and the Drinking Water Directive?
- Give some examples of EU Member State's responsibilities, referring to the Drinking Water Directive.
- Since when is having an access to safe drinking water and sanitation a human right?
- Which MDG connected to water may be reached and which may not?
- Organise a debate on the right to water and sanitation: divide the class into 2 groups that represent Different viewpoints: one group stands for water and sanitation (WS) as a human right, and the other one opposes. Both groups pose their arguments. Invite independent arbitrary persons to chair the negotiations (the village mayor, school headmaster, chair of Community Centre, etc.).
- Write an essay on individual obligations to protect water quality.
- Did your country sign or ratify the Protocol on Water and Health?
- Are there any regulations of the drinking water quality systems providing less than 10 m³ a day as an average or serving fewer than 50 persons?

WSP related activities

- Investigate if the requirements of the drinking water quality are fulfilled: ask the water supplier for the results of the water analyses; find out how often analyses are being done.
- Invite lecturers from the local administration or WS utility to discuss the topic: Ask him/her for success and failures in the implementation of EU water legislation in your municipality and your village.
- Find out if there is an emergency plan in case of exceeding a parameter with health risks. How would the citizens be informed; which measures are taken to assure the citizens of safe drinking water?
- Ask about the regulation of quality drinking water systems, providing less than 10 m³ a day as an average or serving fewer than 50 persons.

9. Text sources and further reading

Amnesty International/ COHRE (2010). The right to adequate water and sanitation. Available from http://hrbaportal.org/wp-content/files/right_to_water_and_sanitation_light.pdf

Council Directive of 8 December 1975 concerning the quality of bathing water (76/160/EEC). Available from <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31976L0160:EN:HTML>

Council Directive of 21 May 1991 concerning urban waste water treatment. Available from <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:1991:135:0040:0052:EN:PDF>

Council Directive 98/83/EC of 3 November 1998 on the quality of water intended for human consumption. Available from <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:1998:330:0032:0054:EN:PDF>

Directive 2007/60/EC of the European Parliament and of the Council of 23 October 2007 on the assessment and management of flood risks. Available from <http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2007:288:0027:0034:EN:PDF>

European Union (2010). The EU Nitrates Directive. Available from <http://ec.europa.eu/environment/pubs/pdf/factsheets/nitrates.pdf>

UN, The Human right to water and sanitation, (2012) Available from http://www.un.org/waterforlifedecade/human_right_to_water.shtml/

UNECE, (1992). Convention on the Protection and Use of Transboundary Watercourses and International Lakes. Available from <http://www.unece.org/env/water/text/text.htm>

UNECE, (1999). Protocol on Water and Health to the 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes, 1999. Available from http://www.unece.org/env/water/pwh_text/text_protocol.html

UNEP, (2011). Towards a green economy, Pathways to sustainable development and Poverty Eradication, Chapter Water. Available from http://www.unep.org/pdf/water/WAT-Water_KB_17.08_PRINT_EDITION.2011.pdf

UNICEF, WHO (2012). Progress on Drinking Water and Sanitation, update 2012. Available from: <http://www.unicef.org/media/files/JMPreport2012.pdf>

Water Framework Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000. Available from http://europa.eu/legislation_summaries/environment/water_protection_management/l28002b_en.htm