

Water management in the Republic of Macedonia

Water management and the field of water policy in the Republic of Macedonia is regulated with the Law on Waters, Law on Environment and Law on Nature Protection.

The Law on Waters provides a legal basis for water protection and management in the Republic of Macedonia. It regulates the manner of water resources use and exploitation, protection against harmful effects of water, protection of water against exhaustive water extraction and pollution, water resources management, sources for and manner of financing water management activities, concessions, transboundary water resources, and other issues of relevance with regard to the provision of a unique water use regime. The most important part of legislation of the Republic of Macedonia in the field of water management is already established. Nevertheless additional subsidiary legislation is to be drafted, stipulated in the Law on Waters, which will ensure full transposition of the EU directives related to water management.

1. Water conflicts (Water use and wastewater)

Water use includes activities of water accumulation, impounding, abstraction, and diverting of surface and groundwater, for:

- human consumption, irrigation, industrial, technological, economic consumption and other purposes;
- electricity generation and other power related purposes.
- fish breeding,
- navigation,
- sports, recreation, bathing, and
- accumulation, impounding, abstraction, utilization, diverting and for other purposes.

The use of waters also includes the activities of drainage and discharging, as well as other activities on waters.

Main challenges on water resources and wastewater management

Water supply management

In all cities there are public utilities (public enterprises), which manage the water supply systems. Some of the rural water supply systems are also managed by public utility formed by the local self-government unit. According to the Law on Self-government, drinking water supply is responsibility of the self-government units, as well as wastewater collection, disposal and treatment of the wastewater. These public utilities are also performing other activities such as: disposal of the solid waste, maintenance of the green areas in the cities, management of the green markets etc. The Municipality Council on the proposal of the mayor appoints the manager of the public utility. This public utility is responsible for management and protection of the protection zones around the water resource, the resource itself, distribution network, water storage tanks, operation, maintenance and development of the system as a whole.

According to the Law on Waters, protection zones around the water resource are defined by the municipality on which territory the resource is located, on a proposal of the public utility which manage the resource. These protection zones are essential for protection and conservation of the water quality of the water bodies used for abstraction of drinking water. The provisions in the Law on Water, also define the three levels of the protection zones and which activities are allowed for each zone.

Rural water supply systems are managed by the local public utility, if there is, or by local people who are not skilled in this area, without enough devices and machines for undertaking this task efficiently, on time and with good performance quality.

Regarding the current condition of the drinking water supply, there are several problems to be addressed to the following:

- (1) condition of the water supply systems in many cities are not satisfying;
- (2) not sufficient water supply systems in the rural areas; (3) high water losses and very low water use efficiency;
- (4) shortage of water in the regions in eastern, southern and central part of the country (Prilep, Veles, Kumanovo, Kratovo, Kriva Palanka, Tetovo);
- (5) water quality problems in Sv. Nikole, Veles, Kratovo and temporary Kavadarci;
- (6) inefficient operation and maintenance of the systems in rural areas;
- (7) low cost revenues collecting rates of the public utilities; (8) no regular monitoring of the water quality and quantity in rural water supply systems;
- (9) no database on national level for all issues related to drinking water supply.

Wastewater management

Current condition of the sewage systems is different in certain urban and rural areas. Generally, the systems are rather old, worn out, the collecting network is constructed of different materials, the pipes are cracked and there is leakage of the wastewater in the ground. The capacity very often is not sufficient to collect all wastewater. The systems are not separate systems for urban wastewater and storm water, and during the floods, the pipes are overloaded and suffer from increased pressure. In the urban areas where the sewage systems are rehabilitated or newly constructed collection and disposal of the wastewater is efficiently performed. Management of the sewage systems is the responsibility of the same public utilities as the drinking water supply. There is not separate billing for wastewater collection and treatment of the water, but all the services are calculated under "supply of 1m³ water". Very low cost revenues doesn't allow sufficient and on time maintenance of the sewage systems.

The percentage of wastewater treatment is very low in the country and the rate of public wastewater treatment plants with biological treatment is even lower. Only seven urban sewage treatment plants are built in the whole country: Struga, Lake Ohrid: 120.000 population equivalent (p.e.); Resen, Lake Prespa: 15.000 p.e.; Dojran, Lake Dojran: ~ 10.000 p.e.; Sveti Nikole: ~ 35.000 p.e.; Makedonski Brod: ~ 5.000 p.e.; Kumanovo: ~ 100.000 p.e. and Berovo 17.000 p.e..

However, especially most bigger cities like Skopje, Bitola, Prilep, Strumica, Tetovo, Gostivar, Veles and Štip have no wastewater treatment plant. They are causing by their high discharge of organic and trophic material strong pollution in the rivers which has very bad impact on the aquatic ecosystem with their aquatic communities as fish fauna, macroinvertebrates and macrophytes.

Sewage treatment plants have top priority, both on local and national level.

Regarding the current condition of the sewage systems, there are several problems to be addressed:

- (1) insufficient number of sewage systems in urban and rural areas;
- (2) poor condition of the sewage systems in many urban areas;
- (3) low wastewater collection and disposal efficiency;
- (4) inefficient operation and maintenance of the systems;
- (5) low cost revenues collecting rate of the public utilities;
- (6) no regular monitoring of the urban wastewater quantities and quality;
- (7) only few treatment plants are under operation;
- (8) no database on national level for the information regarding to urban wastewater collection, disposal and treatment;
- (9) low public awareness for wastewater as pollution source and degradation of the environment and
- (10) secondary legislation is not existing, even it is required by the Law on Water.

2. Priorities in water use

Where more than one concurrent application has been made for use of waters from the same water body for which permit has not been issued, the use shall be permitted according to the following priority:

- water supply for the population through public water supply system, for health institutions and legal persons in the field of veterinary medicine, for the purposes of defence, for food production and processing industry, and water for cattle;
- irrigation of agricultural lands;
- water supply for the industry and commercial purposes;
- hydropower and other power related purposes;

- the needs regarding parks and other public areas;
- bottling of drinking water for commercial purposes; and
- for other purposes

The major water users are agriculture, industry, population (drinking water supply) and energy production. According to the total water demands by user, currently the major water consumer is the irrigation sector with 44 %, then nature with 31%, followed by industry with 14 % and drinking water supply by population and tourists with 11 %.

3. Planning documents

Basic documents for water management planning and development in the R. of Macedonia are :

- National Strategy for Waters, (adopted in 2012)
- Water Master Plan of the Republic of Macedonia
- River basin management plans.

River Basin Management Plans

A River basin management plan for a period of 6 years shall be prepared for each river basin and adopted by the Government of the Republic of Macedonia.

The river basin management plans are developed in accordance with the Water Master Plan and should contain the following elements:

- a description of the characteristics of the river basin;
- a summary of significant pressures and impact of human activity on the status of the surface waters and groundwater;
- information and mapping of the registered protected areas;
- information and mapping as to the arrangements for monitoring the water status;
- a list of the environmental objectives for every water body of the river basin;
- economic analysis of water use including a report on the implementation of the use pays/cost recovery principle;
- programme of measures to achieve the environmental objectives
- the programme for protection from adverse effects of waters, as well as the basic measures for flood protection
- a summary of the public information and consultation measures;
- the arrangements of making available to the public the information and documents relevant to the preparation and implementation of the plan;
- any other matters which the minister managing the state administrative body competent for environment may specifically regulate.

The river basin management plans are enforced through the issuance of permits and other instruments defined in this law.

Programme of measures for achievement of the environmental objectives

The Government of the Republic of Macedonia, shall adopt a Programme of measures for achievement of the environmental objectives for each River Basin District, aiming at achieving the environmental objectives in the River Basin Management Plan. The financial plan for implementation of individual measures and activities envisaged in the Programme of measures shall constitute an integral part of the Programme of measures (taken in account of the economic analysis required).

Each programme of measures shall include the basic measures and if necessary, supplementary measures that should be taken in the particular river basin district in order to achieve the established environmental objectives. The Program of measures shall be updated at least every 6 year and new or revised measures established under an updated program shall be made operational upon introduction.

4. Transparency, access to information and participation

Water book

For the purpose of establishment of a data base and provision of information to all interested parties about the use of waters, a water book shall be established and administrated by the state administration responsible for the affairs of the environment. The access into the content of the water book shall be freely available to the public, save for documents, which are subject to confidentiality. Everybody can request copies of the register documents. Entries shall be kept in the water book for a period of 5 years after the expiration of their validity, and thereafter archived in line with the law.

Reporting to the public

Aiming at reporting to the public, the state administrative bodies competent for environment (MoEPP) shall periodically inform the public about the implementation of the obligations arising from the Law on waters, by preparing and making publicly available relevant reports, including the water monitoring results. The state administrative bodies competent for environment (MoEPP) is obliged to initiate procedure for submission of reports concerning transboundary water issues to neighbouring states, international organization and bodies concerned in accordance to ratified international agreement by Republic of Macedonia.

The access to environmental information, consultation with the general public and public participation in the decision-making process, contained in planning documents are carried out in a manner, under conditions and in a procedure determined by the Law on environment.

Water permit issuance procedure

The state administrative bodies competent for environment (MoEPP) shall publish the application for water permits, in at least one daily newspaper available on the entire territory of the Republic of Macedonia, on its web site and in at least one local printed and electronic medium on the territory of the municipality on which the permit has been requested, within 7 working days from the date of the receipt. MoEPP, in accordance with the provisions of the Law on Environment shall provide to the public access to the information needed for shaping of the opinions and positions. The period in which the public shall express its opinions and remarks on the application shall be 15 days from the date when its publishing.

Development, revision and update of River basin management plans and public information and consultation

The River Basin Management Plan shall be developed in two stages, as follows:

- Draft Plan and
- Proposal of the Plan.

In order to ensure public participation during the development, the Draft Plan, shall be published and made available for public observation.

The Government of the Republic of Macedonia shall adopt a decision for making the Draft Plan available to the public for consultation. The decision shall be published in the "Official Gazette of the Republic of Macedonia". The public consultation shall last for no less than 6 months as of the day of the publication of the decision for making the Draft Plan available for public consultation.

The public consultation shall be organized by the state administrative body competent for environment, and in doing so it shall be obliged to provide conditions and manner to enable the public to express its views and opinions.

On the basis of the opinions and views obtained during the public consultation and expert discussion on the Draft Plan, the state administrative body competent for environment shall develop Proposal of the river basin management plan.

5. Sustainable development and the Millennium development Goals

Sustainable Development

In January 2010, the Government adopted the National Strategy for Sustainable Development, which offers the vision and policy for sustainable development for the period by 2030. Based on this Strategy, the Government established the National Council for Sustainable Development. The Council will be a consultative body to the Government with regard to the sustainable development policy. In support of conducting the expert, logistical and technical activities of the Council, establishment of an Office for Sustainable Development has been envisaged and the MoEPP will carry out these activities until its

establishment. The National Strategy for Sustainable Development was developed in response to requirements for EU accession and also in order to fulfill the requirements from the Commission on Sustainable Development (CSD). The MoEPP coordinated the preparation of the Strategy, which was funded and supported by the Swedish International Development Cooperation Agency (SIDA). The Department for Sustainable Development and Investment within the MoEPP is responsible for activities related to sustainable development.

The National Strategy for Sustainable Development proposes a set of indicators to monitor the progress in achieving the objectives of the strategy and consequently the progress in ensuring sustainable development in the Republic of Macedonia. However, specific indicators for the implementation of sustainable development have not formally been adopted yet by the Government.

Millennium Development Goals

Republic of Macedonia prepared its first Millennium Development Goals (MDGs) Report in 2005, where it identified its national priorities and targets in achieving the MDGs. The 2005 MDG report linked the country's commitment to achieving of the MDGs to the integration in the EU, as the relevant MDG indicators are largely concordant with the EU economic and social cohesion policies. The country prepared its second national report on the progress towards the MDGs in 2009, which assesses progress achieved to date against the national targets which were adjusted and defined in the first MDG Report in 2005.

Regarding MDG-7 "Ensure Environmental Sustainability": 88.9% of all households get drinking water from public supply systems, while 59.9% have access to public sewage.

Sustainable development of water resources through meeting the needs of all users with safe water in sufficient quantity, rational and efficient water use, water protection and pollution control, protection and improvement of riparian land and aquatic ecosystems, and protection and mitigation of impacts of harmful effects of waters and water shortage are determined in the National strategy for waters as a long-term policy.