

Statistical survey on exploitation and protection of water against pollution in industry

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Reference Metadata in ESMS 2.0 structure

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1.1	Contact organisation
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3	Statistical presentation
3.1	Data description
<p>Data on water reflects different aspects of water supply, water use, disposal and wastewater treatment and discharge at national and regional level.</p> <p>Data on water abstraction makes it possible to identify the main sources and to quantify the distribution of water use between different activities.</p> <p>The quantity of fresh water used are presented by categories of water supply and by basic economic activities - Manufacturing industry, Mining and quarrying and Electricity, gas, steam and air conditioning according to NKD Rev.2.</p> <p>The data are produced at administrative - territorial level and River Basin District level. The presented results on water use are calculated on the basis of reported statistical data, proportions and estimates.</p> <p>Indicators on Use of freshwater resources and Water exploitation index are compiled and disseminate.</p>	
3.2	Classification system
<p>National classification of economic activities. NKD Rev. 2 (NACE Rev.2) which is harmonized with European NACE Rev. 2 classification from 01.01.2008.</p> <p>List of river basins.</p>	
3.3	Sector coverage

Full coverage of business entities with 10 and more employees with economic activity in the sectors:

- B / B Mining and quarrying,
- C / V Manufacturing industry,
- D / G - Electricity, gas, steam and air conditioning supply, division 35, according to NKD Rev.2.

3.4 Statistical concepts and definitions

Data on water reflects different aspects of water supply, water use, disposal and wastewater treatment and discharge at national and regional level. Information on water abstraction makes it possible to identify the main sources and to quantify the distribution of water use between different activities.

The quantity of fresh water used are presented by categories of water supply and by basic economic activities - manufacturing, mining and electricity, gas, steam and air conditioning supply.

The data are produced at administrative - territorial level and River Basin District level. The presented results on water use are calculated on the basis of reported statistical data.

In the **occupied quantity of water** enter the quantity of extracted water from underground, surface or spring waters. Water supply can be through a public plumbing; from own water intake (the company has its own water system) or from other sources. The amount of water transferred to other enterprises is deducted from the total amount of water consumed, and the amount of water taken from other enterprises is added to the total amount of water occupied.

Used water is the water used in the technological process or for sanitary purposes or other purposes, in a recirculation system or a single system. The used water can be discharged into sewage or other water bodies, or can be reused as recycled water or as reusable water.

Water for sanitary purposes is water used as drinking water, sanitary needs of workers, cleaning of production facilities and canteens.

Water for other purposes is water used for washing vehicles, cleaning yards, irrigation of green areas

Waste water can not be treated and treated, i.e. purification, in treatment plants in the enterprises themselves.

Waste water from enterprises in the industry can be discharged into: land (in underground waste water collection facilities, natural pools); public sewage system or surface waters (in watercourses, artificial reservoirs, lakes).

3.5 Statistical unit

Enterprises.

3.6 Statistical population

Active enterprises with at least 10 employees, which according to the National Classification of Activities (NKD Rev.2) are allocated in the sectors B-Mining and quarrying, C-Manufacturing industry and D-Supply of electricity, gas, steam and air-conditioning.

3.7 Reference area

NTES 1 and 2 (Republic of North Macedonia)

NTES 3 (Statistical regions)

3.8 Time coverage

Since 1977 onwards.

3.9 Base period

Not applicable

4 Unit of measure

thousand m³

5 Reference period

Calendar year.

6 Institutional mandate

6.1 Legal acts and other agreements

NATIONAL LEGISLATION

Law on State Statistics ("Official Gazette of the Republic of Macedonia" No. 54/1997, 21/2007, 51/2011, 104/2013, 42/2014, 192/2015, 27/16, 83/18, 220/18, 31/20) (<https://www.stat.mk/en/about-us/legal-acts/law-on-state-statistics/>)

Programme of Statistical Surveys 2023-2027 ("Official Gazette of the Republic of North Macedonia" No. 29/23) (<https://www.stat.mk/en/about-us/statistical-surveys/programme-of-statistical-surveys-2023-2027/>)

[us/legal-acts/program-for-statistical-surveys/](#))

EUROPEAN LEGISLATION

Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy.

(<https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32000L0060&from=EN>)

6.2 Data sharing

Data for standard statistical indicators, specialized data according to specific data needs.

Regular provision of data for Eurostat through eDamis OECD/Eurostat Joint Questionnaire "Inland water".

The data is shared with the Ministry of Environment and Spatial Planning based on a document - Memorandum of Cooperation.

Data is shared via eDAMIS to Eurostat in accordance with the Water Framework Directive 2000/60/EC of the European Parliament and of the Council <https://www.eea.europa.eu/policy-documents/water-framework-directive-wfd-2000>

7 Confidentiality

7.1 Confidentiality - policy

1. The protection of individual data is regulated by the Law on State Statistics (<https://www.stat.mk/en/about-us/legal-acts/law-on-state-statistics/>).

2. The basic principles and activities undertaken to ensure data confidentiality are described in the Policy on Statistical Confidentiality (<https://www.stat.mk/en/about-us/policies-and-strategies/policy-on-statistical-confidentiality/>)

7.2 Confidentiality - data treatment

Pursuant to Article 38 of the Law on State Statistics (<https://www.stat.mk/en/about-us/legal-acts/law-on-state-statistics/>) and the Policy on Statistical Confidentiality (<https://www.stat.mk/en/about-us/policies-and-strategies/policy-on-statistical-confidentiality/>), individual data are not published. However, if access is granted to microdata from the relevant survey, then the methods used to prevent data disclosure should be specified.

8 Release policy

8.1 Release calendar

The date of data publication is determined in the Advance Release Calendar, which is updated quarterly.

8.2 Release calendar access

<https://www.stat.mk/en/publishing-calendar/#/>

8.3 User access

All users have equal access to statistics at the same time: this means that the publication dates are announced in advance and no user has access to official statistics before they are published. Statistical data are first published in the "News Releases" edition on the website of the State Statistical Office at 12:00.

9 Frequency of dissemination

Annual.

10 Accessibility and clarity

10.1 News release

News Releases are published and they are available on the website of the SSO in the section: "News Releases"(<https://www.stat.mk/en/all-new-releases>)

News Release Water by sector of economic activity - Utilisation and protection of water against pollution in industry is published and they are available on the website of the SSO in the section: "News Releases" (<https://www.stat.mk/en/stat/industry-energy-and-environment/environment/water-by-sector-of-economic-activity/>)

10.2	Publications
<p>Data on water use is published in:</p> <p>-Publications:</p> <p>Statistical Yearbook, http://www.stat.gov.mk/PublikacijPoOblast.aspx?id=34&rbrObl=37</p> <p>Environmental statistics, http://www.stat.gov.mk/PrikaziPublikacija_1.aspx?rbr=703</p> <p>Regions in Republic of North Macedonia http://www.stat.gov.mk/PrikaziPublikacija_1.aspx?rbr=736</p>	
10.3	On-line database
<p>MAKStat database-Environment</p> <p>http://makstat.stat.gov.mk/PXWeb/pxweb/mk/MakStat/MakStat_ZivotnaSredina/600_ZivSred_MK_VODKoris_mk.px/?rxid=2bee4937-1cbe-4d9d-9b93-66a2fae7a1a0http://makstat.stat.gov.mk/PXWeb/pxweb/en/MakStat/MakStat_ZivotnaSredina/625_ZivSred_MK_VodSnab_eng.px/?rxid=5d42a3c8-ed2f-4f61-a86c-a35c6785c228</p> <p>http://makstat.stat.gov.mk/PXWeb/pxweb/mk/MakStat/MakStat_ZivotnaSredina/625_ZivSred_MK_VodSnab_mk.px/?rxid=2bee4937-1cbe-4d9d-9b93-66a2fae7a1a0</p>	
10.4	Micro-data access
<p>The use of microdata by external users is possible only for research purposes and is done in accordance with the Law on State Statistics (Article 41, Access to anonymised microdata is defined by an internal procedure of the State Statistical Office "Access to anonymised microdata for scientific research" (https://www.stat.mk/en/about-us/procedures/rules-for-access-to-anonymised-microdata-for-research-purposes/)).</p>	
10.5	Other
<p>At the request of users, data are also prepared in a form according to their needs.</p>	
10.6	Documentation on methodology
<p>Methodological explanation, national https://www.stat.gov.mk/MetodoloskiObjasSoop.aspx?id=131&rbrObl=28</p> <p>Methodology, Eurostat https://ec.europa.eu/eurostat/cache/metadata/en/env_nwat_esms.htm</p>	
10.7	Quality documentation
<p>The quality report is published on the SSO web-siite (http://www.stat.gov.mk/Meta_godini_v_)</p> <p>The last refers to 2023 година. The quality report is transmitted to Eurostat via ESS Metadata handler (https://webgate.ec.europa.eu/estat/spe/metaconv/home.htm#). The last refers to the reference year 2023.</p>	
11	Quality management
11.1	Quality assurance

The quality of the processes and products in the State Statistical Office is ensured by adhering to the [European Statistics Code of Practice](https://www.stat.gov.mk/ZaNas_en.aspx?id=2) (https://www.stat.gov.mk/ZaNas_en.aspx?id=2) and the Quality Assurance Framework within the European Statistical System (ESS Quality Assurance Framework – <https://ec.europa.eu/eurostat/documents/64157/4392716/ESS-QAF-V2.0-final.pdf>). The quality criteria are also determined in the Law on State Statistics in Article 4b and Article 4c (<https://www.stat.mk/en/about-us/legal-acts/law-on-state-statistics>).

11.2 Quality assessment

The State Statistical Office carries out statistical activities in accordance with the Statistical Business Process Model, which is based on the international model - Generic Statistical Business Process Model (GSBPM). The application of this model and international standards in statistical production ensures a high level of accuracy and comparability of data.

12 Relevance

12.1 User needs

Data on water use and their protection against pollution are used by national institutions Ministry of Environment and Physical Planning, Regional Environmental and Business Associations, Environmental Associations, NGOs, local self-government units and for calculating indicators. The statistical survey strategies and action plans in the field of water management, and the preparation of environmental status reports in the field of water management. International European organizations express their need for information through specific regulations and agreements, regular working meetings (Eurostat), international questionnaires and requests sent to the SSO (OECD).

12.2 User satisfaction

Starting from 2009, the State Statistical Office conducts a User Satisfaction Survey every three years.

12.3 Completeness

Time series from 1977-2023.

13 Accuracy and reliability

Accurate data is provided by taking measures to reduce sample and / or non-incremental errors, as well as additional comparison and analysis of data before they are published.

13.1 Overall accuracy

The survey methodology and the data collection method ensure good coverage and accuracy of the data.

13.2 Sampling error

Not applicable, statistical research is conducted on a deliberate sample and there is no calculation of sample errors.

13.3 Non-sampling error

Not applicable.

14 Timeliness and punctuality

14.1 Timeliness

T+180

14.2 Punctuality

The data are published on the day announced in the Advance Release Calendar.

15 Coherence and comparability

15.1 Comparability - geographical

There is geographical comparability of disseminated data at national and regional level. Regarding geographical comparability with other European countries as data are collected in accordance with European regulations.

15.2 Comparability - over time

Data from 1977 onwards are calculated according to NKD Rev. 2 and the comparability of time series is ensured.

15.3 Coherence - cross domain

Coherence between fields is not ensured.

15.4 Coherence - internal

Internal coherence of data is ensured, data are compared with other surveys from the sector.

16 Cost and burden

Average time for fill in the questionnaire is 15 minutes.

17 Data revision

17.1	Data revision - policy
Data revision is made in accordance with the Statistical Data Revision Policy of the SSO: (https://www.stat.mk/en/about-us/policies-and-strategies/data-revision/).	
17.2	Data revision - practice
18	Statistical processing
18.1	Source data
Source of data: Statistical survey on water use in industry and mining	
Framework on which the data source is based: Statistical business register: sample, random Stratification criteria: (covering all business entities belonging to the sectors	
Business entities are selected from the business register (with 10 and more employees) in the sectors of economic activities:	
-B / B - Mining and quarrying,	
-C / V - Manufacturing industry	
-D / G - Electricity, gas, steam and air conditioning supply, division 35), according to NKD Rev.2.	
Sample size: In the sample for 2021 780 business entities were covered.	
18.2	Frequency of data collection
Annual	
18.3	Data collection
The data are collected with the statistical template: Annual Report on Water Use and Protection of Waters from Industrial and Mineral Pollution (Vod.1)	
The statistical form of Vod.1 is sent to the business entities selected in the sample at the beginning of the year by post. For each selected company an form is being prepared. Data are provided by self-completion method by business entities.	
18.4	Data validation
Validation of data in the template:	
Upon receipt, the template is archived, recorded, controlled and entered in the application (in Blaise).	
The application performs mandatory controls according to the defined validation rules.	
In the event of errors and / or illogicalities contact the data providers.	
The scope is controlled.	
Validation of output data:	
Output data are analyzed and confirmed, at the level of department, sector, compared to the previous year.	
18.5	Data compilation
Editing: Aggregate data is obtained by weighting the sample data. The lowest level of aggregation is at the NTES 2 level.	
The sampling variable is the number of employees in each stratum. Imputation: Imputation is performed with data from the previous period.	
18.6	Adjustment
No time series adjustment of data is made.	
19	Comment
A.1	Annexes