

Environmental Statistics

WASTEWATER STATISTICS

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QATAR

Contents

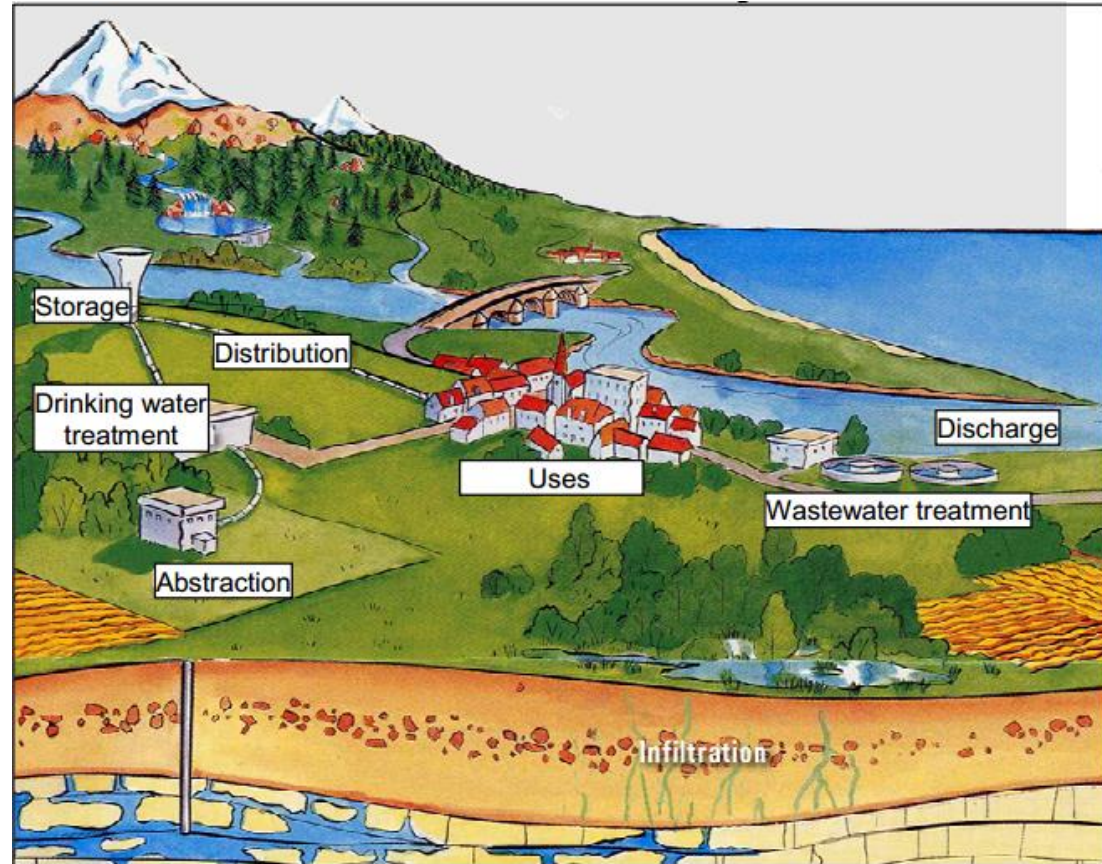
- Concepts, Definitions and Classifications
- Data Collection Process
- Wastewater Statistics Variables
- Data Analysis
- Dissemination
- Challenges

WASTEWATER STATISTICS

Concepts and Definitions

- Wastewater
- Wastewater treatment
- Primary treatment
- Secondary treatment
- Tertiary treatment
- Domestic wastewater
- Industrial (process) wastewater
- Sewage sludge

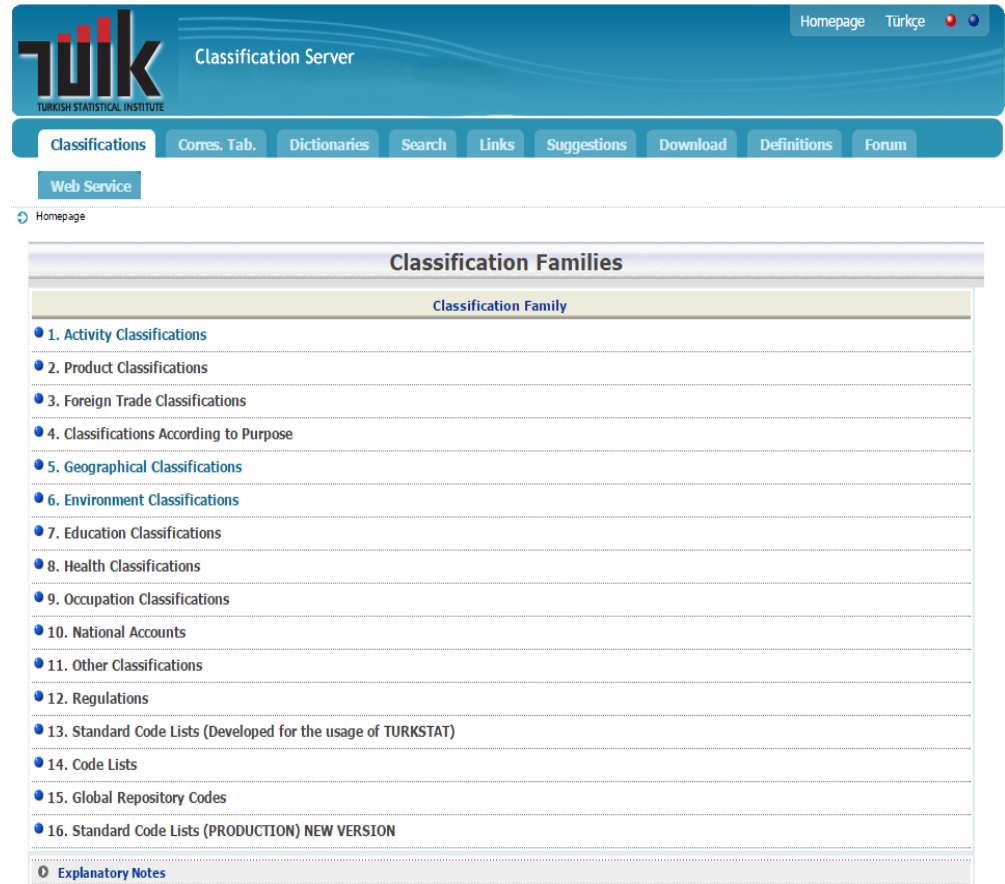
Source: Data Collection Manual for the OECD/Eurostat Joint Questionnaire on Inland Waters
Version 3.0 – September 2014



WASTEWATER STATISTICS

Classifications

- **NACE Rev.2:** Statistical Classification of Economic Activities in the European Community (**N**omenclature statistique des **A**ctivités économiques dans la **C**ommunauté Européenne)
- **ISIC Rev.4** International Standard Industrial Classification of All Economic Activities (ISIC Rev. 4) is the last version of ISIC Rev. 3 developed by United Nations.
- **NUTS:** Nomenclature of Territorial Units for Statistics (Statistical Regions-SRE)



The screenshot shows the 'Classification Server' interface. At the top, there is a navigation bar with the TIK logo and the text 'Classification Server'. Below this, there are several menu items: 'Classifications', 'Corres. Tab.', 'Dictionaries', 'Search', 'Links', 'Suggestions', 'Download', 'Definitions', and 'Forum'. A 'Web Service' button is also visible. The main content area is titled 'Classification Families' and contains a list of 16 classification families, each with a blue circular icon and a text label. The list includes: 1. Activity Classifications, 2. Product Classifications, 3. Foreign Trade Classifications, 4. Classifications According to Purpose, 5. Geographical Classifications, 6. Environment Classifications, 7. Education Classifications, 8. Health Classifications, 9. Occupation Classifications, 10. National Accounts, 11. Other Classifications, 12. Regulations, 13. Standard Code Lists (Developed for the usage of TURKSTAT), 14. Code Lists, 15. Global Repository Codes, and 16. Standard Code Lists (PRODUCTION) NEW VERSION. At the bottom of the list, there is a link for 'Explanatory Notes'.

WASTEWATER STATISTICS

Data collection process

Summary

- Variables collected by surveys (questionnaires)
 - Determining the variables
 - Preparation of standard code lists
- Determination of all address framework
 - Determining of scope
- Methods of data collection
 - Surveys
 - Administrative data

For surveys:

- Preparation of questionnaires
- Preparation of web base application
 - DDI and edit rules of programme (database and edits)
- Data sources (Address framework process)

Administrative:

- Data transfer

WASTEWATER STATISTICS

TURKSTAT Environmental Surveys (biennially)

| Name of survey | Scope (data source) | Number of respondents (2017) |
|---|--|------------------------------|
| Municipal Wastewater Statistics | All municipalities | 1 397 |
| Manufacturing Industry Water, Wastewater and Waste Statistics | All manufacturing industry establishments with 50 or more employees | 12 000 |
| Thermal Power Plants Water, Wastewater and Wastewater Statistics | All thermal power plants with 100 MW or more installed capacity | 73 |
| Mining Establishments Water, Wastewater and Waste Statistics | All operating mining ores | 6 000 |
| Organized Industrial Regions Environmental Statistics | All organized industrial regions having completed their infrastructure | 293 |

TURKSTAT Environmental Administrative Data

| Name of survey | Scope (data source) | Number of villages (2017) |
|---|--|------------------------------|
| Water and Wastewater Statistics of Villages | Ministry of Interior (for all villages) | 18 000 |

Administrative Data Disseminated by Other Institutions

- **Marine pollution**
(Ministry of Environment & Urbanization)
(Barcelona Convention, Bucharest Convention)

Data collection process

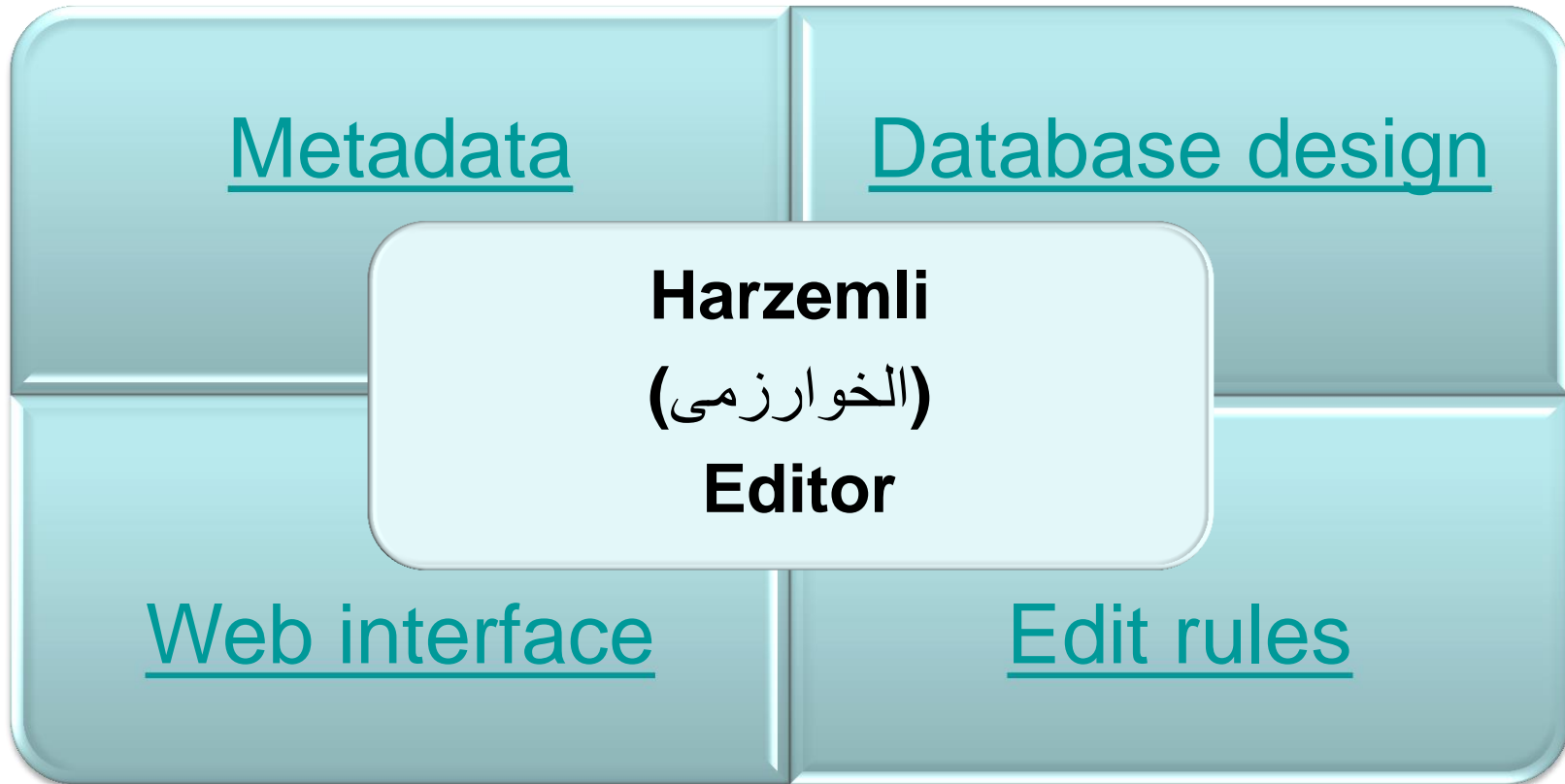
Before the field applications

- Reviews of the questionnaires
- Determination of the address framework
- Preparation of the web base application
 - DDI and editing rules (by Harzemli editor)
 - Preparation of analysis programme (SAS)
 - Test of the web base application (regional and central)
- Sending the official letter, brochure and password

Preparation of the web base application

- The Harzemli Editor application provides a user-friendly interface for defining the questionnaire for web base.
- Produces DDI and rule files as XML format :
 - the reference and structural metadata information of the questionnaire
 - the rule file of the flow and data integrity.
- Takes XML files as inputs and generates the desired data entry application.
- Search fields, page structures, question types and restrictions are defined
- The questions in the questionnaire are designed by a drag-and-drop method and the designed questionnaire displayed instantaneously.
- The properties of variables and variable groups are in the form of "What You See Is What You Get".

Preparation of the web base application



Preparation of the web base application

SAS Analysis Programming

- Time series analysis
- Threshold control
- Internal consistency controls

Test of the web base application

- Regional
- Central

Data collection process

Official Letter

- Title of the survey
- Aim of the survey
- Information about how to access to web programme
- Reply period
- Statistical law
 - Confidentially
 - Response obligation and penalty

T.C.
TÜRKİYE İSTATİSTİK KURUMU BAŞKANLIĞI
..... **Ç KOLONU** Bölge Müdürlüğü

Belge No/Tarihi: 20 Mart 2017
Konu: Anket Bertaraf ve Geri Kazanım Tesisi İstatistikleri 07/03/2017

..... **Ç KOLONU**

Türkiye İstatistik Kurumu Başkanlığı (TUIK), 5429 sayılı Türkiye İstatistik Kanunu uyarınca çeşitli konularda sayım ve anket düzenlemekte ve sonuçlarını kullanıcılarına sunmaktadır. Bu çalışmaların biri olan "Anket Bertaraf ve Geri Kazanım Tesisi İstatistikleri, 2016" soru formunu ile edilecek olan istatistikler, kalkınma planları ve yıllık programların hazırlanması, ülkemizde çevre konusunda meydana gelen değişimlerin anlaşılması, ulusal ve uluslararası bilgi sisteminin ve Karşılaştırmaları olanak sağlanması ile çeşitli araştırmalara kaynak teşkil etmesi amacıyla kullanılacaktır.

İki yılda bir kez uygulanan bu araştırmaya ilişkin formun, "tuik.gov.tr" adresinde yer alan "ankete giriş" butonu aracılığıyla, tarafınıza teslim edilen edilecek "kullanıcı adı" ve "şifre" kullanılarak, şifrenin teslimini müteakip (şifre daha önce teslim edildi ise bu yazım tarafınıza teslimini müteakip) 15 gün içerisinde, eksiksiz ve doğru bir biçimde doldurulması gerekmektedir. Sizlerden alınan bilgiler yalnızca istatistik çalışmalarında kullanılmak amacıyla derlenmektedir. Bu bilgilerin gizliliği, 5429 sayılı Türkiye İstatistik Kanunu ile teminat altına alınmıştır. Kanun uyarınca, bu bilgiler idari, adli ve askeri hiçbir organ, makam, merci veya kişiye verilemez, istatistik amacı dışında kullanılmaz.

5429 sayılı Türkiye İstatistik Kanununun 54. maddesi uyarınca, istenilen bilgilerin belirlenen şekilde, zamanında, eksiksiz ve doğru bir biçimde verilmesi durumunda 2.752 (iki bin yediyüzbeşlik) TL idari para cezası uygulanmaktadır. Çalışma ile ilgili ayrıntılı bilgi almak için aşağıda iletişim bilgileri yer alan Bölge Müdürlüğümüz yetkililerine ulaşabilirsiniz. Çalışma kapsamında vereceğiniz bilgiler ve ilişkin için teşekkür eder, saygılar sunarız.

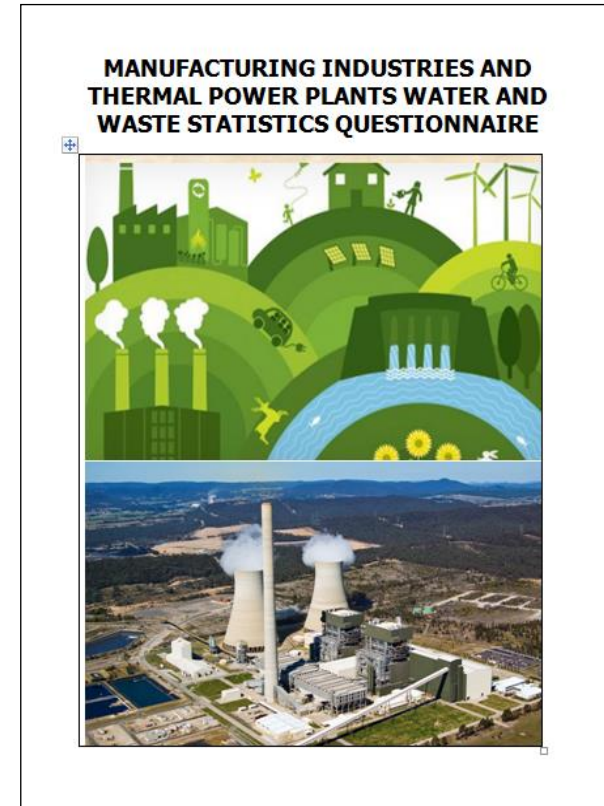
..... **Ç KOLONU**

Bölge Müdürü

Data collection process

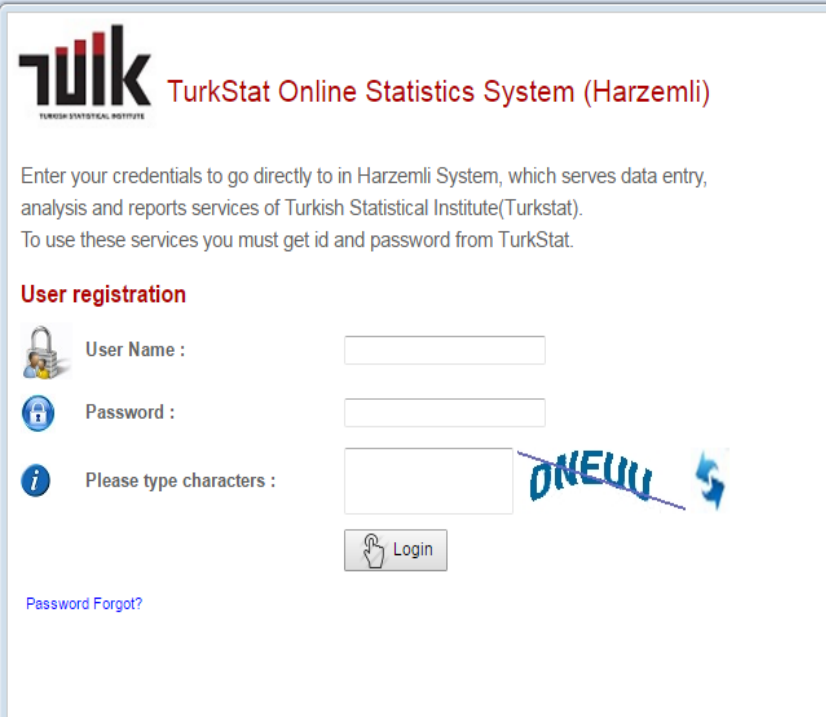
Brochure


- Why do we come to you?
- Why do we apply municipal wastewater statistics questionnaire?
- How do we choose you?
- What is the method of research?
- What are the latest figures?
- How do you enter your data via internet?
- User name and password
- Response obligation
- Data confidentiality
- Contact information of regional and central offices



Field application


- User names and passwords are delivered to the respondents
- 2 months






 **TurkStat Online Statistics System (Harzemli)**


Enter your credentials to go directly to in Harzemli System, which serves data entry, analysis and reports services of Turkish Statistical Institute(Turkstat).
To use these services you must get id and password from TurkStat.

User registration

 User Name :

 Password :

 Please type characters : 

 Login

[Password Forgot?](#)

Variables

Municipal Wastewater Statistics:

- number of municipalities served by sewerage
- rate of population served by sewerage
- number of municipalities served by wastewater treatment plants,
- rate of population served by wastewater treatment plants
- amount of discharged wastewater from sewerage by type of receiving bodies
- number, type and capacity of wastewater treatment plants,
- amount of wastewater treated
- wastewater analysis by parameters (for the calculation of pollution loads)

Variables

Industrial Wastewater Statistics:

Data collected from manufacturing industry establishments, thermal power plants, mining establishments and organized industrial zones are:

- amount of wastewater discharged by type of treatment and type of receiving bodies,
- amount of wastewater treated,
- number, type and capacity of wastewater treatment plants,
- wastewater analysis by parameters (for the calculation of pollution loads)
- amount of sewage sludge
- type of sewage sludge treatment
- amount of sewage sludge used or disposed

Variables

Wastewater Statistics of Villages (Compiled by Ministry of Interior)

- Number of villages served by sewerage,
- Number of villages served by wastewater treatment plants,
- Population served by sewerage in villages,
- Population served by wastewater treatment plants in villages,
- Amount of wastewater discharged by type of receiving bodies
- Amount of wastewater treated.

Data Analysis

SAS analysis (Regional Offices)

- Data coherency in the question and between the questions
- Data analysis by population, sector, per capita or employee, etc.
- Data control of the respondent with the previous years
- Data control in terms of totals and subjects (ex: total water abstraction and water abstraction from sea, lake, etc.)

SAS analysis (Central Office)

- In depth analysis of explanations of the respondents (are they logical or enough)
- Data control with the available administrative records (ex: treatment plant capacity)
- Data control with the previous years despite the correction via SAS analysis

Data Dissemination

<http://www.turkstat.gov.tr>

Dissemination

- Preparation of news releases,
- Preparation of press room bulletins,
- Updating metadata
- Updating databases,
- Preparation of [Institutional Quality Reports](#),
- Preparation of tables for other publications (yearbook, web-page, statistics in figures, etc.),
- Transfer of data to Eurostat, OECD, etc.

Municipal Wastewater Data in TURKEY, 2014

| Number of municipalities | Total municipal population | Number of municipalities served by sewerage system | Rate of population served by sewerage system in total municipal population (%) | Number of municipalities served by wastewater treatment plants | Rate of population served by wastewater treatment plants in total municipal population (%) |
|--------------------------|----------------------------|--|--|--|--|
| 1 396 | 72 505 107 | 1 309 | 90 | 513 | 68 |

Press bulletins

No: 18779
22
December
2015
Hrs: 10:00

Municipal Drinking Water Statistics, 2014

Municipalities abstracted 5.2 billion m³ of water from water resources

According to the results of Municipal Water Statistics Survey 2014, which was applied to all municipalities, 1 394 municipalities out of 1 396 were served by water supply network. 5.2 billion m³ of water was abstracted from water sources by municipalities to water supply network. Out of this amount, 36% was abstracted from dams, 27.2% from wells, 18.8% from springs, 12.5% from rivers and 5.5% from lakes/artificial lakes and sea.

Treatment was applied to 57.2% of the abstracted water

Out of 5.2 billion m³ of water abstracted to water supply network, 3 billion m³ was treated in drinking water treatment plants. 95.5% of this amount was treated by conventional methods, 2.9% was treated by advanced methods, and 1.6% was treated by physical methods.

Water supply networks served 97% of the municipal population

In 2014, population served by water supply networks has a share of 91% in Turkey's population and a share of 97% in total municipal population. Rate of population served by drinking water treatment plants was 54% in Turkey's population, and 58% in total municipal population.

Average amount of water abstracted per capita per day was 203 liters

Average amount of water abstracted by municipalities to water supply network was calculated as 203 liters per capita per day. In case of three largest cities, amount of abstracted water per capita per day was 181 liters for Istanbul, 211 liters for Ankara, and 180 liters for Izmir.

Municipal water indicators, 2006-2014


| | 2006 | 2008 | 2010 | 2012 | 2014 |
|---|-------|-------|-------|-------|-------|
| Total number of municipalities | 3 225 | 3 225 | 2 950 | 2 950 | 1 396 |
| Number of municipalities served by water supply network | 3 167 | 3 190 | 2 925 | 2 928 | 1 394 |
| Rate of population served by water supply network in total municipal population (%) | 98 | 99 | 99 | 98 | 97 |
| Total amount of water abstracted to water supply networks by resources (million m ³ /year) | 5 164 | 4 647 | 4 785 | 4 806 | 5 237 |
| Dam | 1 844 | 1 810 | 2 252 | 2 416 | 1 687 |
| Well | 1 402 | 1 276 | 1 274 | 1 396 | 1 424 |
| Spring | 1 380 | 1 061 | 1 016 | 948 | 985 |
| River | 305 | 174 | 159 | 78 | 652 |
| Lake - Artificial lake/Sea | 233 | 226 | 83 | 98 | 290 |
| Amount of water distributed via water supply network (million m ³ /year) | 2 375 | 2 401 | 2 580 | 2 802 | 3 395 |
| Amount of water treated in water treatment plants (million m ³ /year) | 2 427 | 2 121 | 2 520 | 2 729 | 2 995 |
| Average amount of water abstracted per capita per day (liter/capita-day) | 245 | 215 | 216 | 216 | 203 |

EXPLANATIONS


Municipal Water Statistics Survey has been applied to all municipalities in Turkey, whereas villages have been out of the scope of this survey.

| Metadata | Close |
|--|-------|
| Analytical Framework, Concepts, Definitions, and Classifications | |
| Scope of the Data | |
| Accounting Conventions | |
| Characteristics of Basic Data Sources | |
| Compilation Practices | |
| Revisions | |
| Other subjects | |

Dissemination Data Base



CENTRAL DISSEMINATION SYSTEM



By Indicator
By Time
By Region
Report

? Help

↻
Subject

Municipal Waste Statistics

📄

↻
Measurement

| | Choose a Measurement |
|---|---|
| 📄 | Total number of municipalities |
| 📄 | Number of municipalities served by municipal waste services |
| 📄 | Population of municipalities served by municipal waste services |
| 📄 | Rate of population served by municipal waste services in total population (%) |
| 📄 | Rate of population served by municipal waste services in total municipal population (%) |

Number of chosen Indicators: 0 X Number of chosen Regions: 0 X Number of chosen Time: 0 the result of multiplication cannot be greater than 50000!

Statistical Tables



The screenshot shows the website interface for the Turkish Statistical Institute. At the top, there is a banner with the TIK logo and the slogan "Statistics is the key of understanding the past, governing today and planning the future". Navigation links include Home, About Us, Publications, Information Request, FAQ, and Site Map. A search bar is also present.

The main content area is titled "Statistics by Theme » Environment Statistics »". It features a left-hand navigation menu with the following items: Press Releases, Main Statistics, Statistical Indicators, Statistics by Theme, Databases, Official Statistics Portal, National Data Release Calendar, and MetaInfo.

The main content area is titled "Environment Statistics" and contains a "Statistical Tables and Dynamic Search" section. This section is organized into three main categories:

- Dynamic Search:**
 - Municipal Waste Statistics (M)
 - Public sector environmental expenditure statistics (M)
 - Air quality statistics
 - Municipal Wastewater Statistics (M)
 - Municipal Water Statistics (M)
- Statistical Tables:**
 - Air statistics
 - Water statistics
 - Water Abstraction for Municipal Water Supply Network
 - Water Indicators of Municipalities
 - Manufacturing Industry Water Indicators
 - Wastewater statistics
 - Waste statistics
 - Environmental accounts
- Metadata**

International Questionnaires

- [Eurostat / OECD Inland water joint questionnaire](#)

Challenges

- Non-registered data
- Address framework
- Technical terms
- Non-technique respondents
- Unintended faults

Thank you for your attention