WATER STATISTICS

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QATAR

Contents

- Concepts, Definitions and Classifications

- Data Collection Process

- Water Statistics Variables

- Data Analysis

- Dissemination

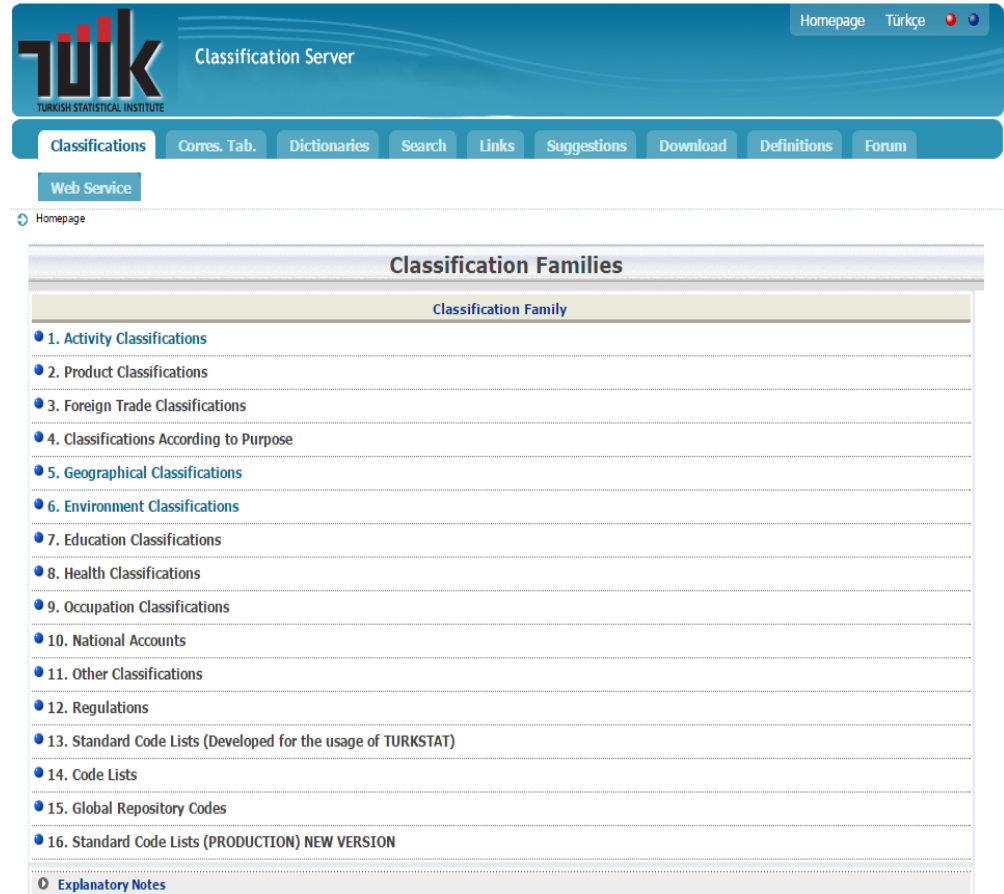- Challenges

Concepts and Definitions

- Fresh Surface Water

- Fresh Ground Water

- Non Freshwater Sources

- Gross Water Abstraction

- Water Returned Without Use

- Reused Water

- Public Water Supply

- Self And Other Supply

- Water Losses

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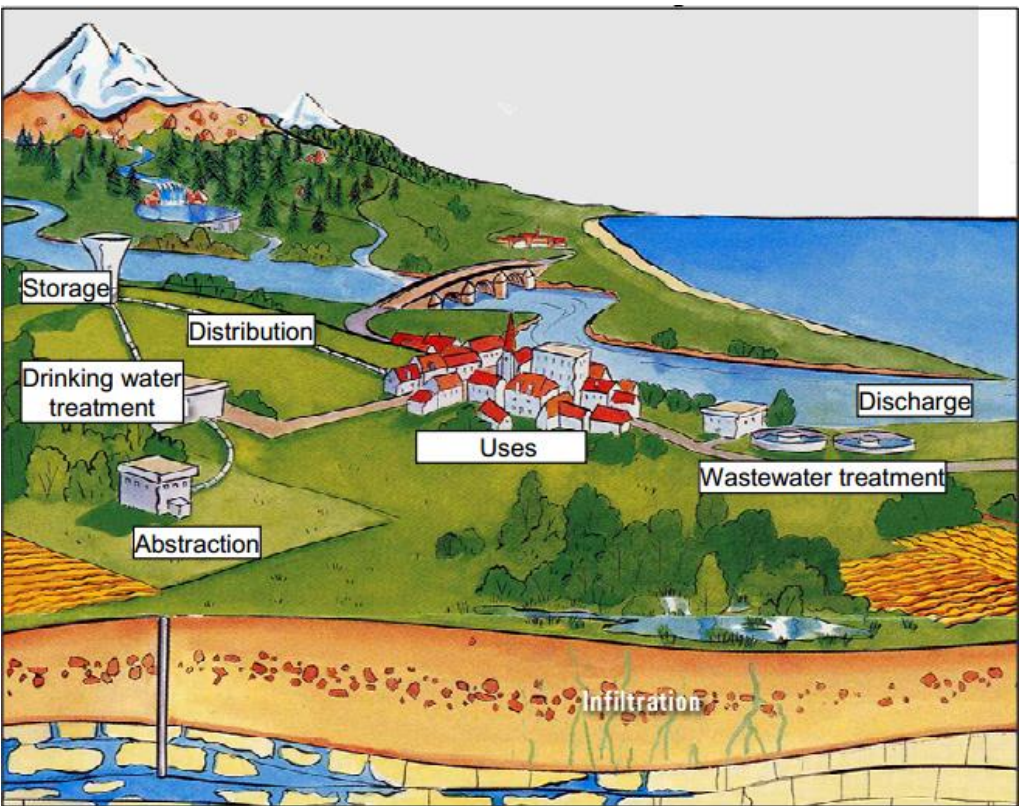
Source: Data Collection Manual for the OECD/Eurostat
Joint Questionnaire on Inland Waters
Version 3.0 – September 2014

Classifications

- **NACE Rev.2:** Statistical Classification of Economic Activities in the European Community (**N**omenclature statistique des **A**ctivités économiques dans la **C**ommunauté **E**uropéenne) (EU)

- **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. (UN)

- **NUTS:** Nomenclature of Territorial Units for Statistics (Statistical Regions-SRE) (EU)

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

Water Statistics Questionnaire (web vs paper base)

Before 2014 (paper base)   After 2014 (web base)

TURKSTAT Environmental Surveys (biennially)

Name of survey	Scope (data source)	Number of respondents (2017)
Municipal Water 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 Waste Statistics	All thermal power plants with 100 MW or more installed capacity	73
Mining Establishments Water and Wastewater 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

- **Water resources statistics**
  (State Hydraulic Works (DSİ))
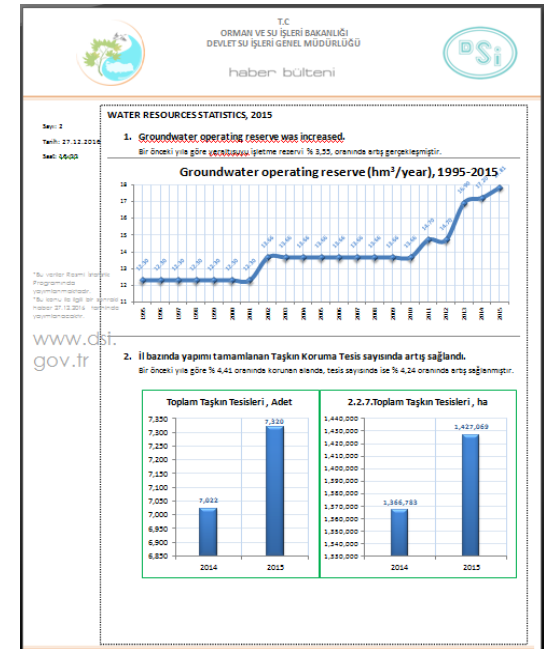
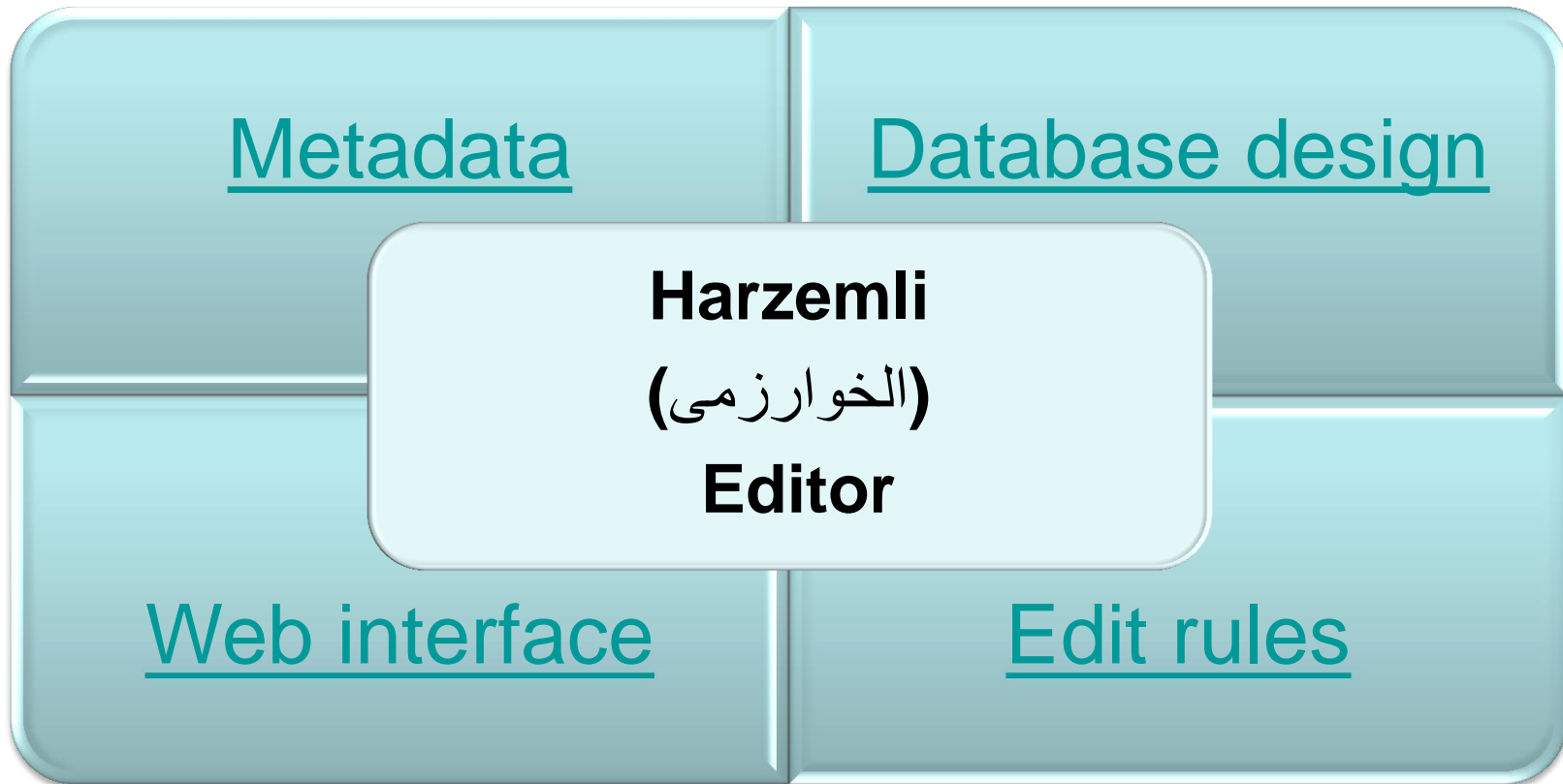# Data collection process

Before the field applications

– Reviewing/updating questionnaires

– Determination/preparation 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

Harzemli Editor

- 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

Metadata

Database design

Harzemli

(الخوارزمی)

Editor

Web interface

Edit rules

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
  - o Confidentially
  - o Response obligation and penalty

Data collection process

Brochure

- Why do we come to you?

- Why do we apply municipal water 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

MANUFACTURING INDUSTRIES AND THERMAL POWER PLANTS WATER AND WASTE STATISTICS QUESTIONNAIRE
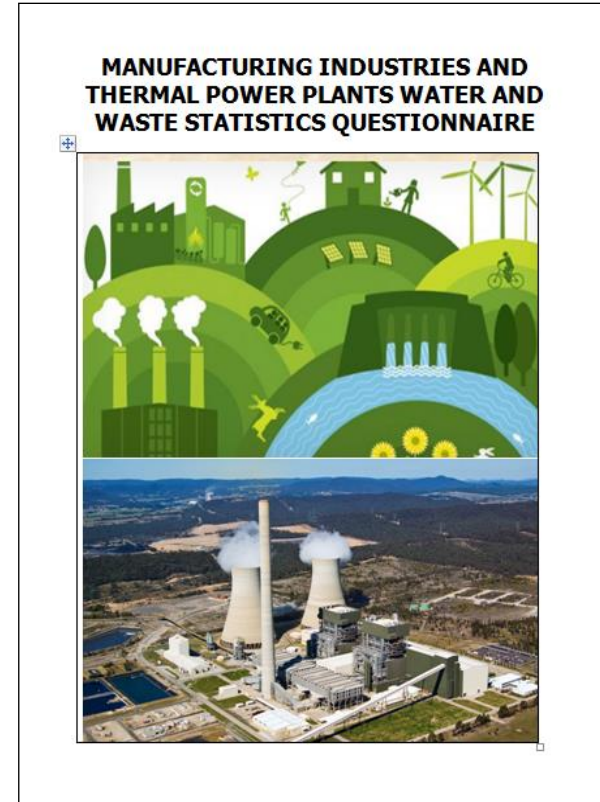
Field application

- User names and passwords are delivered to the respondents

- 2 months

Water Statistics Variables

Municipal Water Statistics

➢ drinking water networks presence,

➢ rate of population served by drinking water networks,

➢ water treatment plant presence,

➢ rate of population served by water treatment plants,

➢ amount of water abstracted to drinking water networks by type of resources,

➢ number of subscribers and amount of water distributed (paid and cost free),

➢ Network losses and illegal uses,

➢ number, type and capacity of water treatment plants,

➢ amount of water treated

Water Statistics Variables (cont'd)

Industrial Water Statistics

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

➢amount of water abstracted by type of resources,

➢source of cooling water,

➢water consumption by type of use,

➢Reused water amount

Water Statistics Variables (cont'd)

Water Statistics of Villages (Compiled by Ministry of Interior)

- Drinking water networks presence,

- Population served by drinking water networks in villages,

- Amount of water abstracted by type of resources

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

Dissemination

http://www.turkstat.gov.tr

Environment, Energy and Transport Statistics Department

Dissemination

- [Preparation of press bulletins (standart)](#),

- [Special press bulletins (press room),](#)

- [Special occasion press bulletins](#)

- [Updating metadata](#)

- Updating databases,

- Preperation of [Institutional Quality Reports](#),

- Preparation of tables for other publications (yearbook, web-page, statistics in figures, etc.),

- Transfer of data to Eurostat, OECD, etc.
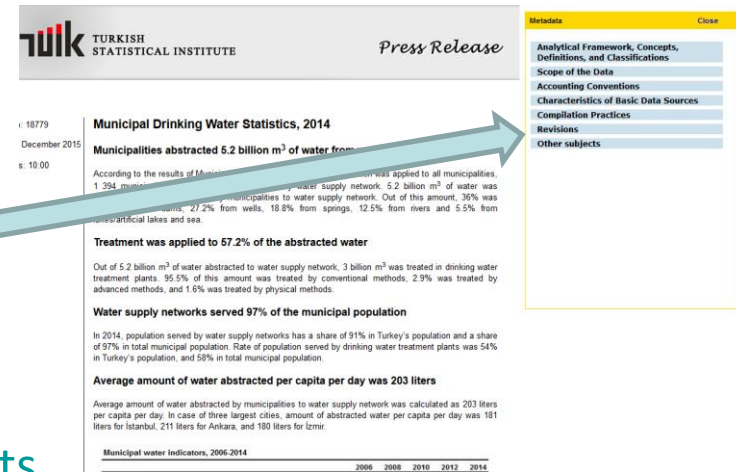
Examples of data dissaminated

Municipal Water Statistics Data, 2014

Number of municipalities	Total municipal population	Number of municipalities served by water supply network	Rate of population served by water supply network in total municipal population (%)	Number of municipalities served by drinking water treatment plants	Rate of population served by drinking water treatment plants in total municipal population (%)
1 396	72 505 107	1 394	97	436	58

Amount of water abstracted from resources, (thousand m3/year)

Year	Total amount of water abstracted	Municipalities	Villages	Manufacturing industry establishments	Thermal power plants	Organized industrial zones	Mining establishments
2012	14 262 629	4 930 733	1 036 740	1 668 756	6 396 057	120 296	110 047
2014	14 744 979	5 232 039	428 882	2 203 935	6 526 322	144 886	208 915

Press bulletins

Dissemination Data Base

Statistical Tables

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