

Eurostat's statistics on water resources, abstraction and use

UNECE Workshop on water statistics and indicators, 11 May 2015 Jürgen Förster, Eurostat E2



OECD/Eurostat Joint Questionnaire on Inland Waters (JQ-IW)

- First developed by the OECD in the early 1980's
- Joined by Eurostat in the early 1990's
- **Voluntary exercise** \rightarrow gentlemen's agreement
- Biennial collection of yearly data for national territories
- EU + CC + EFTA + neighbours (+ non- European OECD)
- World Standard for official Water Statistics



Eurostat Regional Environmenteal Questionnaire (REQ)

- Section on Inland waters

 → sub-set of the JQ-IW (simplified)
- Regional aggregations:
 - NUTS2 (administrative regions)
 - WFD River Basin Districts/SU
- Voluntary exercise \rightarrow gentlemen's agreement
- Biennial collection of yearly data for national territories



Parameters for water resources

	Formula
Precipitation (1)	Р
Actual evapotranspiration (2)	Е
Internal Flow (3)	(IF=P-E)
Actual external inflow (4)	El
Total actual outflow (5)	0
into the sea (6)	Os
into neighbouring territories (7)	Ot
TOTAL RENEWABLE FRESHWATER RESOURCES (8)	(IF+ EI)
Recharge into the Aquifer (9)	
Groundwater available for annual abstraction (10)	
Freshwater resources 95 % of years, LTAA (11)	

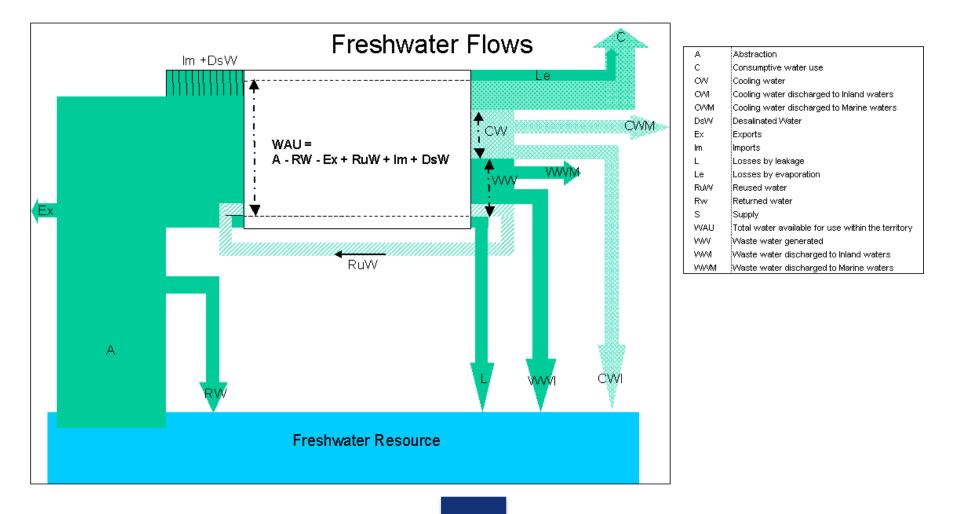


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Water flow scheme





Parameters for abstraction from fresh water sources

Total surface and groundwater - Total gross abstraction (15)	(FS+FG)
Public water supply (16)		
Agriculture, forestry, fishing	(01-03)	
- Irrigation (17)		
- Aquaculture (18)		
Mining and quarrying	(05-09)	
Manufacturing industry	(10-33)	
Cooling in manufacturing industry (19)		
Cooling in electricity production (19)	(35.11-35.13)	
Construction		
Services	(45-96)	
Private households		
Water returned without use (20)		RW
Net abstraction (21)		(FS+FG)-RV



Parameters for abstraction from non fresh water sources

on fresh water sources (22) (Marine and brackish water) Tota	
Agriculture, forestry, fishing	
Irrigation (17)	
Aquaculture (18)	
Manufacturing industry	
Cooling in manufacturing industry (19)	
Cooling in electricity production (19)	
Services	
esalinated water (23) - Total	

Public water supply (16)

Reused water (24) - Total

Irrigation in agriculture, forestry

Manufacturing industry



Water abstraction – other parameters

Imports of water (25) - to	otal
Exports of water (30) - to	otal
Non renewable groundw	vater (14), Total
Total water made availal	ble for use (WAU=FS+FG+NfW-RW-
Ex+RuW+Im+DsW)	
Losses during transport	(27) TOTAL
Evaporation losses	
Leakage	
Memorandum items for	water abstraction:
Abstraction from artificial	reservoirs
Water abstraction for purp	poses of hydroelectricity generation



Parameters for water use from public and self supply

А	Agriculture, forestry, fishing
B-F	All industrial activities :
В	Mining and quarrying
С	Manufacturing industry
C_CL	Cooling in manufacturing industry (19)
C10_C11	Food processing industry
C24	Basic metals
C29_C30	Motor vehicles and transport equipment
C13-C15	Textiles, etc
C17	Paper and paper products
C19-C21	Chemicals, refined petroleum, etc.
C_OTH	Other manufacturing industry n.e.c.
D3511_D3513	Production and distribution of electricity
D3511_D3513_CL	Cooling in electricity production (19)
F	Construction
G-U	Services
	Private households



Average response rates for all tables, per country (ESS)

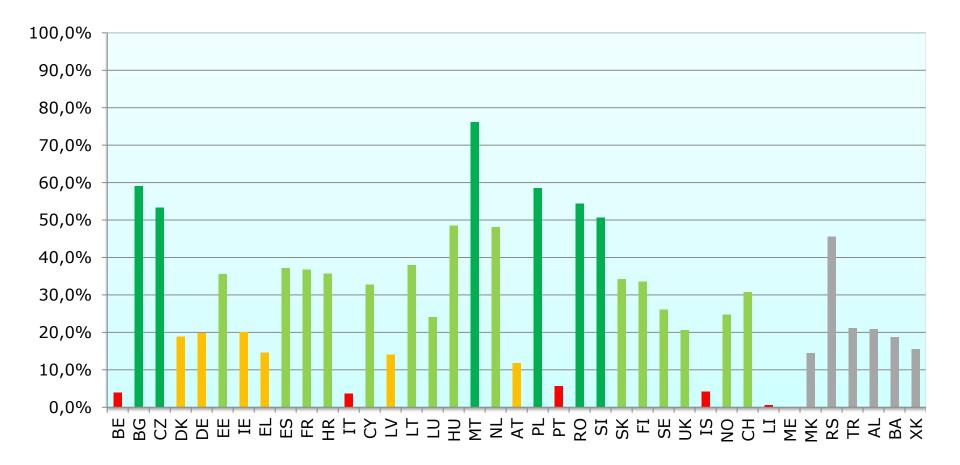
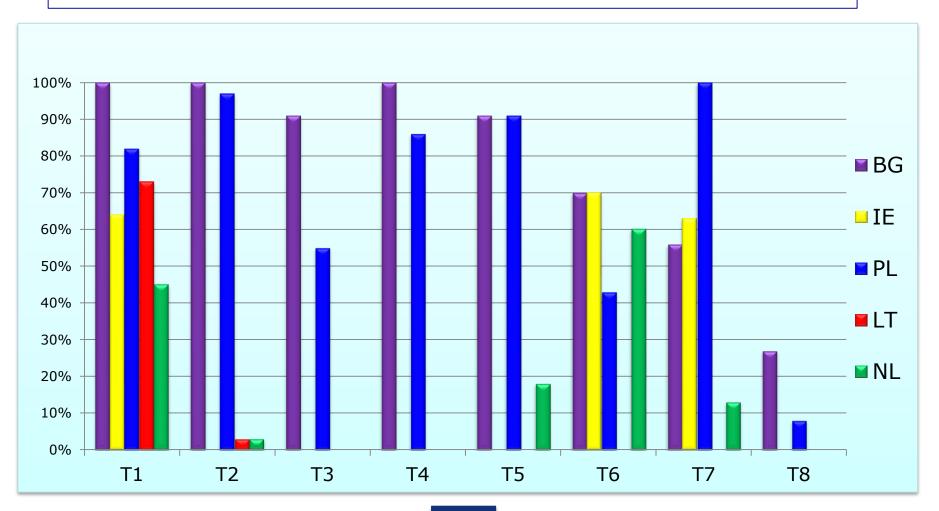
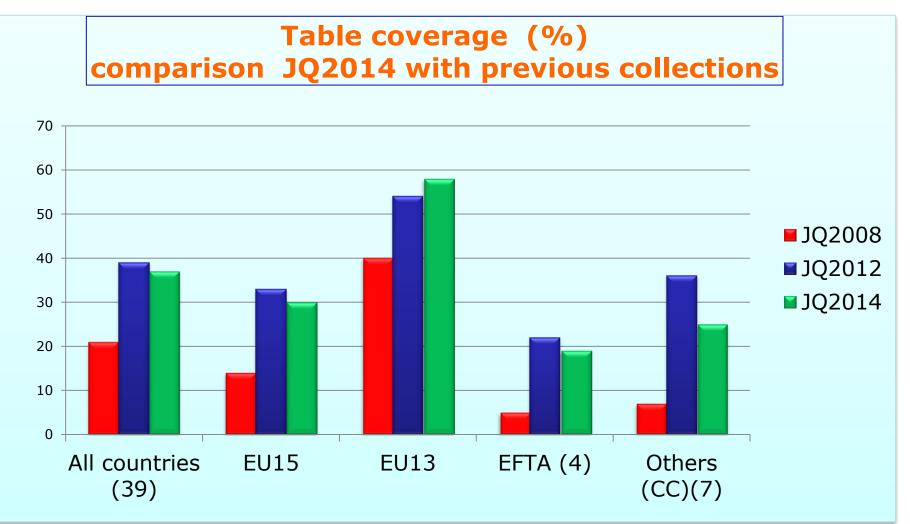




Table coverage for some countries - 2013









Data collection, validation and dissemination process

- Preparation of webforms (EDAMIS)
- Provision of supporting documents
- Ca.3 months for on-line reply
- Transfer to internal database
- Data validation in Eurostat or by consultants
 → clarification of problems with data sources
- Transfer to Eurostat website (tables and database)
- Update of statistical articles ('Statistisc Explained')
- Yearbooks, pocketbooks, specific publications



Use of statistics – policy:

• EU Commission – DG Environment:

- policy papers, e.g. water scarcity and droughts
- checking/comparison with compliance reporting

• European Environment Agency:

- assessments
- WISE

• National governments + administrations

- European Parliament
- Companies
- NGOs + the general public



Use of statistics - indicators

• Eurostat:

- → Water Exploitation Index (SW/GW)
- → Freshwater abstraction by source and capita
- → Water productivity (RE dashbord \in /vol.)

• EEA:

- \rightarrow CSI core set of indicators
- \rightarrow WEI+
- \rightarrow water use intensity of irrigated crops (vol.(e)



Use of statistics – water accounts Which water accounts to develop?

	Asset accs	Flow accs		Quality accs	Ecosystem accs
		Volume	Substances		
Physical					
Monetary					



Use of statistics – water accounts Which water accounts to develop?

	Asset accs	Flow accs		Quality accs	Ecosystem accs
		Volume	Substances		
Physical	2	1	3		
Monetary		1	3		



Eurostat's water statistics

Thank you!

Any questions?