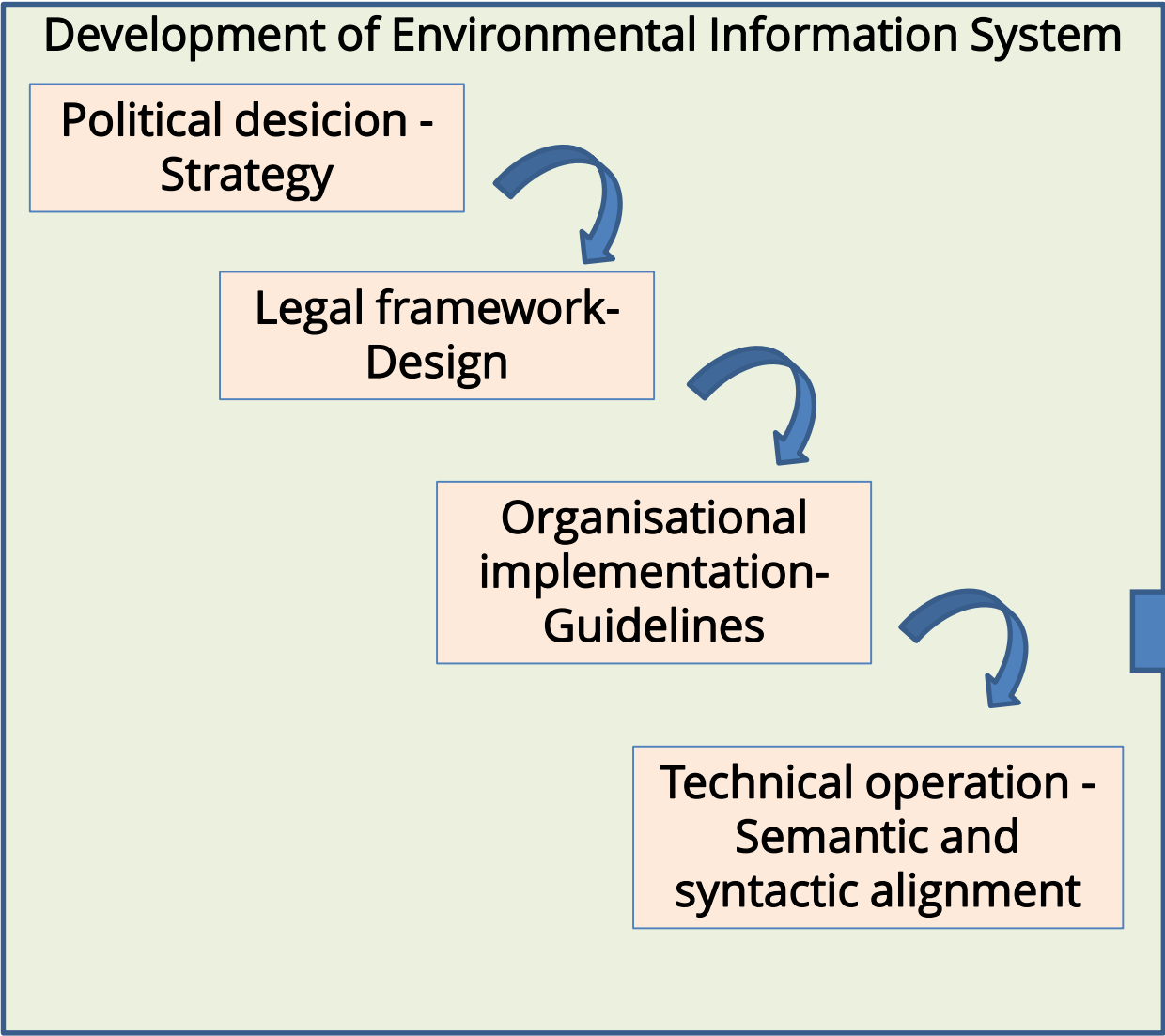


*Implementation of the Shared Environmental
Information System (SEIS) principles and practices
in the Eastern Partnership countries*

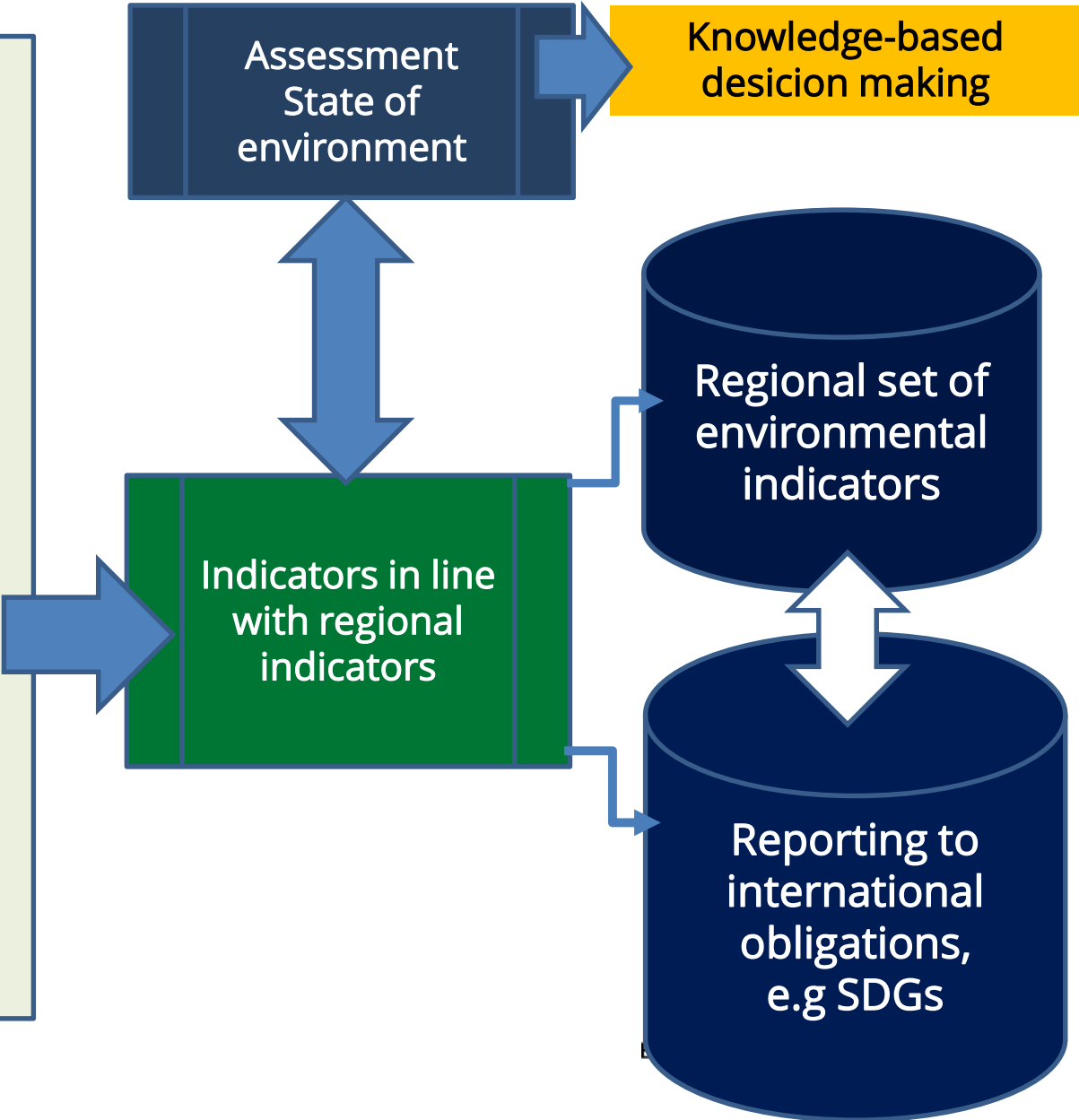
*The **ENI SEIS II East** project (2016-2020)*

Regional plan of activities

Support regional/international commitments related to environmental reporting



Underpinned by SEIS principles



Proposed thematic areas for regional cooperation



Water



Biodiversity



Air



Common pilot
CORINE Land Cover

Water; Water quantity & water quality

- Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention)
 - Water and Health Protocol
- United Nations Sustainable Development Goals
 - particularly Goal 6
- Water accounts (UN System of Economic-Environmental Accounting Framework for Water)
- EU Water Framework Directive
- The EU water related policies e.g. Water scarcity and droughts, Resource efficiency roadmap

Biodiversity; Emerald Network

- Cooperation with the Council of Europe on Bern Convention, particularly **establishment of Emerald Network**
- Convention on Biological Diversity and The Aichi Biodiversity Targets (to support National Biodiversity Strategy and Action Plan, **Programme of work on protected areas**)
- Alignment with the EU Habitat and Bird Directives (**Natura 2000 linking with the Emerald Network**)
- UN SDGs Goal 15 (Sustainably manage forests, combat desertification, halt and reverse land degradation, **halt biodiversity loss**)
- UNESCO World Heritage Convention and MaB Programme (**Biosphere reserves**)
- Other international instruments e.g. Ramsar Convention etc.

CORINE Land Cover – Copernicus programme

Implementation of the CORINE land cover and land cover change for 6 capital areas of the Eastern Countries

Examples from thematic areas – Water accounts

1) STORY / ASSESSMENT

Use of freshwater resources

Indicator Assessment — Prod-ID: IND-11-en Also known as: CS 018, WAT 001 — Created 27 Oct 2015 — Published 21 Mar 2016 — Last modified 26 Aug 2016, 09:42 AM



Topics: Water

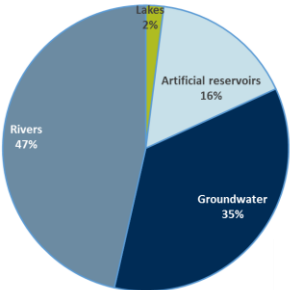
Key messages

- While water is generally abundant in Europe, water scarcity and droughts continue to affect some water basins in particular seasons. The Mediterranean region and most of the densely populated river basins in different parts of Europe are hot spots for water stress conditions.
- During winter, some 30 million inhabitants live under water stress conditions, while the figure for summer is 70 million. This corresponds to 6 % and 14 % of the total population of Europe respectively.
- Around 20 % of total the population of the Mediterranean region live under permanent water stress conditions. More than half (53 %) of the Mediterranean population is effected by water stress during the summer.
- At 46 % and 35 % respectively, rivers and groundwater resources provide more than 80 % of the total water demand in Europe.
- Agriculture accounts for 36 % of total water use on an annual scale. In summer, this increases to about 60 %. Agriculture in the Mediterranean region alone accounts for almost 75 % of total water use for agriculture in Europe.
- Public water supply is second to agriculture, accounting for 32 % of total water use. This puts pressure on renewable water resources, particularly in high population density areas with no water coming from upstream.
- Service sector has become one of the main pressures on renewable water resources, accounting for 11 % of total annual water use. Small Mediterranean Islands in particular are under severe water stress conditions due to receiving 10-15 times more tourists than they have local inhabitants.

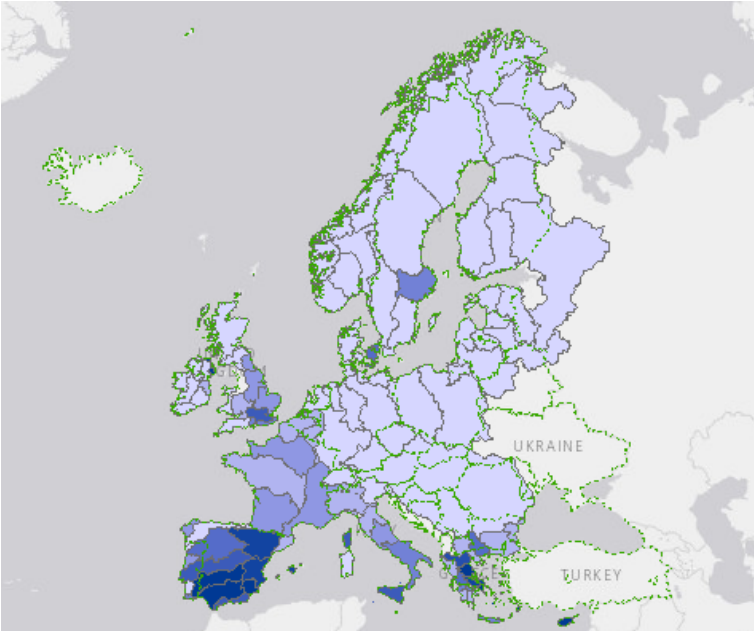
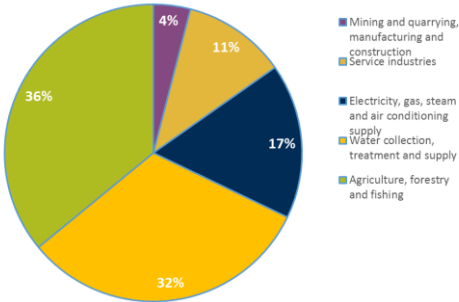
Freshwater abstraction and water use
Is the abstraction rate of water sustainable?

2) INTERACTIVE GRAPHS

Annual - Water abstraction by source in Europe (2012)



Annual- Water use by sectors in Europe (2012)



3) INDICATOR MANAGEMENT SYSTEM

Water (Primary topic) — WAT 001

Tags: WAT (water exploitation index) | water abstraction

DSO: Pressure
Typology: Descriptive indicator (Type A - What is happening to the environment and to humans?)

Temporal coverage: 1990-2012

Geographic coverage: Albania, Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Kosovo, Latvia, Liechtenstein, Lithuania, Luxembourg, Macedonia, Malta, Montenegro, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom

Contacts and ownership

EEA Contact info: Pihai Zal

EEA Management Plan: 2015 1.3.4 (note: EEA internal system)

Dates: First draft created: 27 Oct 2015, 12:38 PM; Publish date: 21 Mar 2016, 06:52 PM; Last modified: 26 Aug 2016, 09:42 AM

Ownership: European Environment Agency (EEA)

Frequency of updates: Updates are scheduled once per year

4) ACCESS TO DATA

Waterbase - Water Quantity

Data — Prod-ID: DAT-58-en — Created 30 Sep 2016 — Published 11 Oct 2016 — Last modified 11 Oct 2016, 06:21 PM

Topics: Water

Waterbase is the generic name given to the EEA's databases on the status and quality of Europe's rivers, lakes, groundwater bodies and transitional, coastal and marine waters, on the quantity of Europe's water resources, and on the emissions to surface waters from point and diffuse sources of pollution.

European data | Additional information | Metadata

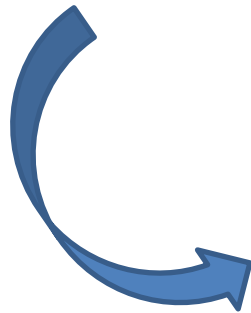
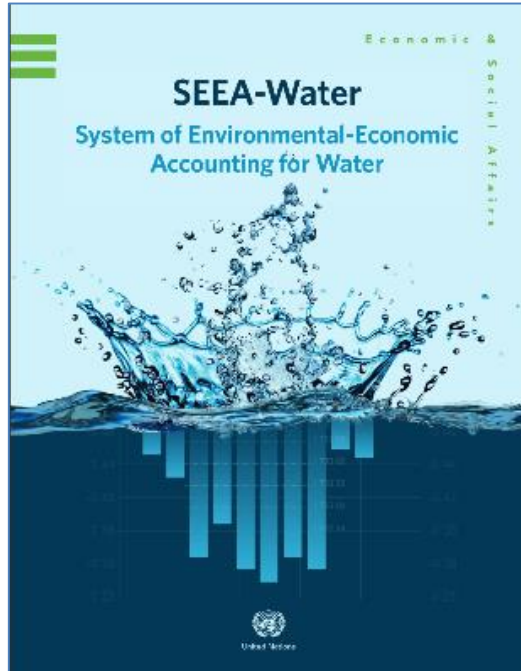
Waterbase - Water Quantity (7 tables)


The dataset contains time series of water quantity data, reported by EEA member countries and cooperating countries. The data has been compiled and processed by ETC-ICM and EEA. Please refer to the metadata for additional information.

[+] Show table definition

- Waterbase-Water Quantity (Microsoft Access database file) (ZIP archive) 33.99 MB Download file
- Waterbase-Water Quantity (CSV files) (ZIP archive) 24.92 MB Download file
- Waterbase-Water Quantity (SQLite file) (ZIP archive) 37.31 MB Download file

Examples from thematic areas – Water accounts



European Environment Agency 

European Water Assets Accounts and updating the use of freshwater resources indicator (CSI 018)


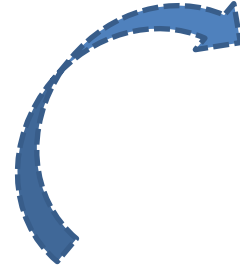


Photo: © Peter Kristiansen

Prepared by / compiled by:
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Dimitris Panagos, Alexandros Psomas, Dimitra Konsta,
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EEA project manager:
Nihat Zal



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ENVIRONMENT

European Commission > Environment > Water > Scarcity and droughts >

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Water Scarcity & Droughts in the European Union

While Europe is by large considered as having adequate water resources, water scarcity and drought is an increasingly frequent and widespread phenomenon in the European Union. The long term imbalance resulting from water demand exceeding available water resources is no longer uncommon.

It was estimated that by 2007, at least 11 % of Europe's population and 17 % of its territory had been affected by water scarcity, putting the cost of droughts in Europe over the past thirty years at EUR 100 billion. The Commission expects further deterioration of the water situation in Europe if temperatures keep rising as a result of climate change. Water is no longer the problem of a few regions, but now concerns all 500 million Europeans.

Objectives

The main overall objective of EU water policy is to ensure access to good quality water in sufficient quantity for all Europeans, and to ensure the good status of all water bodies across Europe. Therefore, policies and actions are set up in order to prevent and to mitigate water scarcity and drought situations, with the priority to move towards a water-efficient and water-saving economy.

EU Action

The major challenge from water scarcity and droughts has been recognised in the Communication "[Addressing the challenge of water scarcity and droughts](#)" from the European Commission adopted in 2007 [COM(2007)414]. Implementation of the Communication is periodically assessed through annual [Follow-up Reports](#).

2012 Water Scarcity and Droughts Policy Review

Water

- Blueprint
- River Basin Management
- Flood Risk Management
- Water Scarcity and Droughts
 - Introduction
 - About Water Scarcity and Droughts
 - EU Action on Water Scarcity and Droughts
 - Water Scarcity and Droughts review Background documents
 - Other instruments
 - Good Practices and Learned Lessons
 - Links
- Drinking Water
- Bathing Water
- Emissions and Water Reuse

Examples from thematic areas – Water quality


1) STORY / ASSESSMENT

Freshwater quality

Briefing — Published 18 Feb 2015 — Last modified 15 Nov 2016, 11:30 AM

PDF ePub

Topics: Water



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Global megatrends

European briefings

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Air pollution

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Climate change impacts and adaptation

Consumption

Energy

Forests

Freshwater quality

Green economy

Health and environment

Hydrological systems and sustainable water management

Industry

Land systems

Marine environment

Maritime activities

Mitigating climate change

Natural capital and ecosystem services

Noise

Much cleaner than 25 years ago, many waterbodies are still affected by pollutants and/or altered habitats. In 2009, only 43% showed a good/high ecological status; the expected 10 percentage point increase for 2015 (to 53%) constitutes only a modest improvement in aquatic ecosystem health.

Water management should improve with the second round of river basin management plans covering the 2016-2021 period resulting in the realisation of more policy objectives through stringent, well-integrated implementation and public participation.

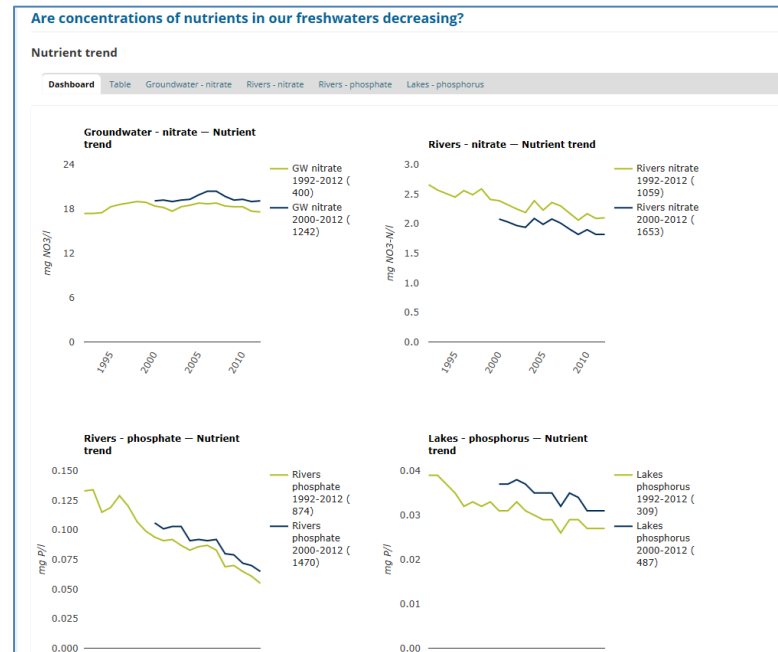
Context

The continuing presence of pollutants in Europe's waters threatens aquatic ecosystems and raises concerns for public health. Discharge from urban wastewater treatment, and industrial effluents and losses from farming, are the main sources for water pollution. For example, agriculture causes widespread problems of nutrient enrichment in freshwater across Europe, despite recent improvements in some regions.

*Example to the EU policy lines:
Good ecological status of
freshwater bodies – Water
Framework Directive*

Nutrients in freshwater - Are concentration of nutrients in our freshwater decreasing?

2) INTERACTIVE GRAPHS



3) INDICATOR MANAGEMENT SYSTEM

Water (Primary topic)

WAT 001

Tags: Water (water exploitation index) | water abstraction

Temporal coverage: 1990-2012

Geographic coverage: Albania, Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Kosovo, Latvia, Liechtenstein, Lithuania, Luxembourg, Macedonia, Malta, Montenegro, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom

EA Contact info: Ownership: European Environment Agency (EEA)

EA Management Plan: 2015 1.5.4 (note: EEA internal system)

Frequency of updates: Updates are scheduled once per year

First draft created: 27 Oct 2015, 12:38 PM

Published date: 21 Mar 2016, 06:52 PM

Last modified: 28 Aug 2016, 09:42 AM

4) ACCESS TO DATA

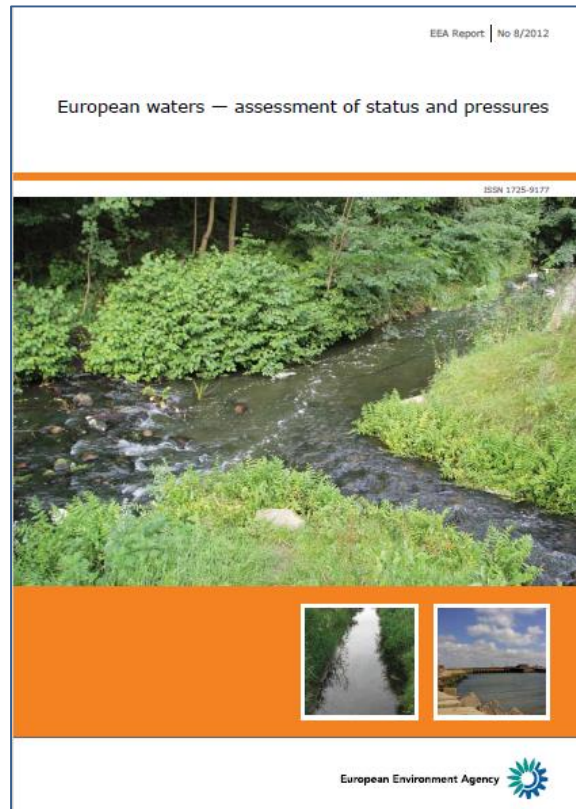
RecordRepr	CountryCod	Waterbasell	NationalSta	Year	Aggregation	Aggregation	Determinan	Unit_Nutrie
NA	HU	HU_RV_04F836	04F836	1987	Annual	Annual	12	Total ammonia mg/l N
NA	HU	HU_RV_04F836	04F836	1987	Annual	Annual	12	Total nitrogen mg/l N
NA	HU	HU_RV_04F836	04F836	1987	Annual	Annual	12	Total oxidised mg/l N
2013-12-31	LT	LT_RV_LTR137	LTR137	2009	Annual	Annual	01-12	12 Orthophospho mg/l P
2013-12-31	LT	LT_RV_LTR137	LTR137	2009	Annual	Annual	01-12	12 Oxygen satura %
NA	HU	HU_RV_04F836	04F836	1987	Annual	Annual	12	Total phospho mg/l P
NA	HU	HU_RV_04F836	04F836	1987	Summer	Summer	3	BOD5 mg/l O2
NA	HU	HU_RV_04F836	04F836	1987	Summer	Summer	3	CODMn mg/l O2
NA	HU	HU_RV_04F836	04F836	1987	Summer	Summer	3	CODCr mg/l O2
NA	HU	HU_RV_04F836	04F836	1987	Summer	Summer	3	Dissolved oxy mg/l O2
NA	HU	HU_RV_04F836	04F836	1987	Summer	Summer	3	Nitrate mg/l N
NA	HU	HU_RV_04F836	04F836	1987	Summer	Summer	3	Nitrite mg/l N
NA	HU	HU_RV_04F836	04F836	1987	Summer	Summer	3	Total organic n mg/l N
NA	HU	HU_RV_04F836	04F836	1987	Summer	Summer	3	Orthophospho mg/l P
NA	HU	HU_RV_04F836	04F836	1987	Summer	Summer	3	Oxygen satura %
NA	HU	HU_RV_04F836	04F836	1987	Summer	Summer	3	Total ammonia mg/l N
NA	HU	HU_RV_04F836	04F836	1987	Summer	Summer	3	Total nitrogen mg/l N
NA	HU	HU_RV_04F836	04F836	1987	Summer	Summer	3	Total oxidised mg/l N
NA	HU	HU_RV_04F836	04F836	1987	Summer	Summer	3	Total phospho mg/l P
NA	HU	HU_RV_04F836	04F836	1987	Winter	Winter	3	BOD5 mg/l O2
NA	HU	HU_RV_04F836	04F836	1987	Winter	Winter	3	CODMn mg/l O2
NA	HU	HU_RV_04F836	04F836	1987	Winter	Winter	3	CODCr mg/l O2
NA	HU	HU_RV_04F836	04F836	1987	Winter	Winter	3	Dissolved oxy mg/l O2
NA	HU	HU_RV_04F836	04F836	1987	Winter	Winter	3	Nitrate mg/l N
NA	HU	HU_RV_04F836	04F836	1987	Winter	Winter	3	Nitrite mg/l N
NA	HU	HU_RV_04F836	04F836	1987	Winter	Winter	3	Total organic n mg/l N
NA	HU	HU_RV_04F836	04F836	1987	Winter	Winter	3	Orthophospho mg/l P
NA	HU	HU_RV_04F836	04F836	1987	Winter	Winter	3	Oxygen satura %
NA	HU	HU_RV_04F836	04F836	1987	Winter	Winter	3	Total ammonia mg/l N
NA	HU	HU_RV_04F836	04F836	1987	Winter	Winter	3	Total nitrogen mg/l N
NA	HU	HU_RV_04F836	04F836	1987	Winter	Winter	3	Total oxidised mg/l N
NA	HU	HU_RV_04F836	04F836	1987	Winter	Winter	3	Total phospho mg/l P
NA	HU	HU_RV_04F836	04F836	1988	Annual	Annual	12	BOD5 mg/l O2

Examples from thematic areas – Water quality

WFD –
River Basin Management
Plans

WATERBASE

Rivers
Lakes
Transitional, coastal and
marine
Groundwater
Emissions to water



European Commission

ENVIRONMENT

European Commission > Environment > Water > Directive

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Blueprint
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Flood Risk Management
Water Scarcity and Droughts
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Emissions and Water Reuse
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Conferences and Initiatives
Water Eurobarometer

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If you have any questions about European water policy or if you have any ideas on how to improve this site, please send us an email to the "Water Mailbox" of the

The EU Water Framework Directive - integrated river basin management for Europe

On 23 October 2000, the "Directive 2000/60/EC of the European Parliament and of the Council establishing a framework for the Community action in the field of water policy" or, in short, the **EU Water Framework Directive** (or even shorter the WFD) was finally adopted.

The **Directive** was published in the Official Journal (OJ L 327) on 22 December 2000 and entered into force the same day. Some amendments have been introduced into the Directive since 2000, and you can download the consolidated version in all EU languages [here](#).

However, even after reading the Directive, you may have still questions, such as: What is this Directive about? What do I need to know about the Directive? What is currently happening in relation to the Directive?

Twelve "Water notes" which aim to give an introduction and overview of key aspects of the implementation of the Water Framework Directive are available to download in all EU languages !

General information

- [WFD - introduction and overview](#)
- [The key issues](#)
- [Decision-making process](#)
- [Key political steps](#)
- [Timetable for implementation](#)
- [Clear deadlines and milestones](#)
- [WFD links](#)
- [Web pages of national authorities, and of some international river basins, responsible for the implementation of the WFD](#)
- [WFD CIRCARC - the Information Exchange Platform](#)

Examples from thematic areas – CORINE Land Cover


1) STORY / ASSESSMENT

Land systems

Briefing — Published 18 Feb 2015 — Last modified 15 Nov 2016, 11:30 AM

PDF ePub

Topics: Land use



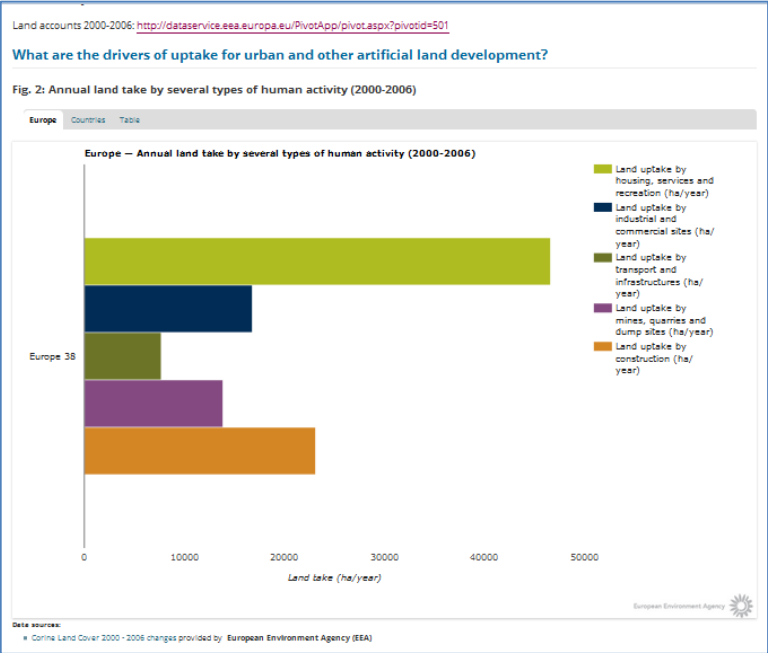
SOER 2015

- Synthesis report
- Global megatrends
- European briefings
 - Agriculture
 - Air pollution
 - Biodiversity
 - Climate change impacts and adaptation
 - Consumption
 - Energy

"Land take" dominates in Europe, with artificial areas and agricultural intensification, resulting in land degradation, worsened by high fragmentation on 30% of land area. Conflicting demands on land impact significantly on the land's potential to supply key services.

Land (up)take - CORINE

2) INTERACTIVE GRAPHS



Example to the relevant EU policy line: Natural water retention measures for the adaptation to climate change

3) INDICATOR MANAGEMENT SYSTEM

• Corine Land Cover 2000 raster data provided by European Environment Agency (EEA)
• Corine Land Cover 2000 - 2006 changes provided by European Environment Agency (EEA)

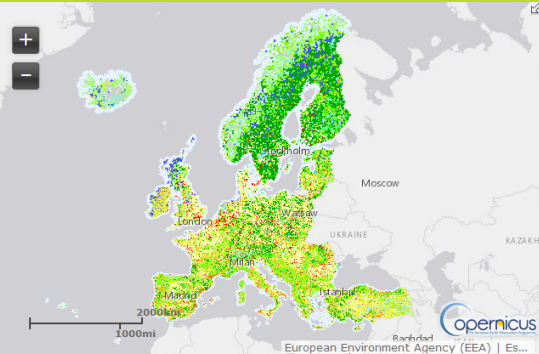
Generic metadata

Topic	Indicator codes
Land use (Primary topic)	• CS 014 • LIS 001
Keywords	Temporal coverage
• Topic	2000-2006
• Date	Geographic coverage
• 2000(2010) green economy urbanisation land use land take urban sprawl	Albania, Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Iceland, Ireland, Italy, Kosovo (UNSCR 1244/99), Latvia, Lithuania, Luxembourg, Macedonia (FYR), Malta, Montenegro, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom
DSIR: Pressure	
Target : Descriptive indicator (Type A - What is happening to the environment and to humans?)	
Contacts and ownership	
EEA Contact info	Ownership
• Brandis Oriah	• European Environment Agency (EEA)
EEA Management Plan	
• 2010 2.6.2 (note: EEA internal system)	
Dates	Frequency of updates
First draft created: 13 Feb 2010, 11:02 AM	Updates are scheduled every 6 years
Published data: 24 Jun 2010, 09:53 AM	
Last modified: 04 Sep 2016, 07:50 PM	

4) ACCESS TO DATA

Map View Metadata Download

Go to: Web services



European Environment Agency (EEA) | Es...

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- Contract opportunities
- EAGLE
- Land use cases
- Publications
- Technical library

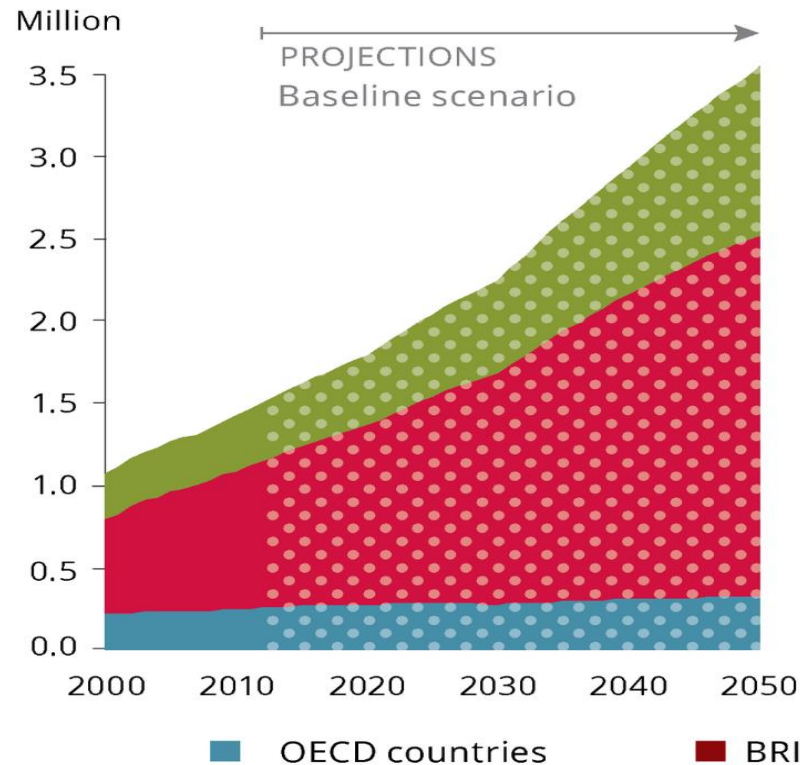
Area 1 Air Quality – why it matters / what can be gained

Is expected to be the main environmental cause of premature mortality worldwide by 2050

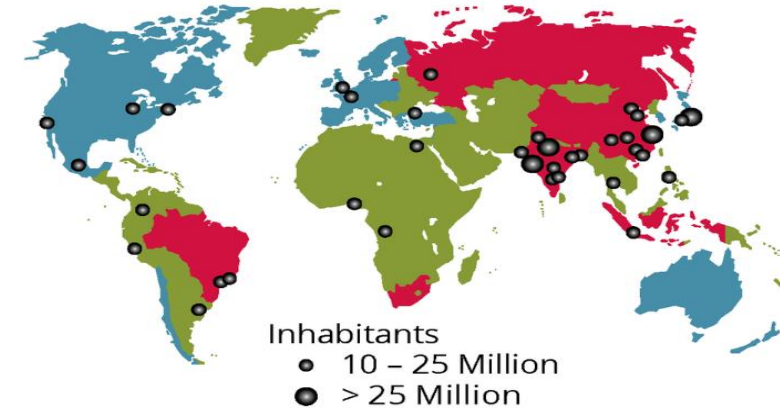
Key issue :
Fine Particulate Matter

“Batumi Action for Cleaner Air” 2016-2021 has committed a policy focus on air quality

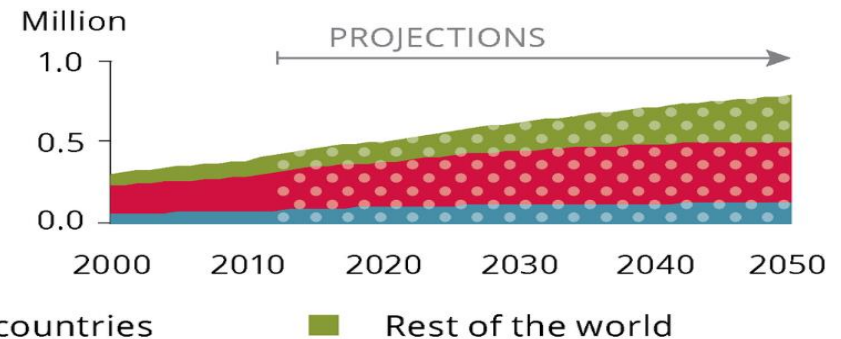
World premature deaths from exposure to particulate matter



Megacities of 2025



World premature deaths due to ozone pollution



Area 1 Air Quality – why it matters / what can be gained

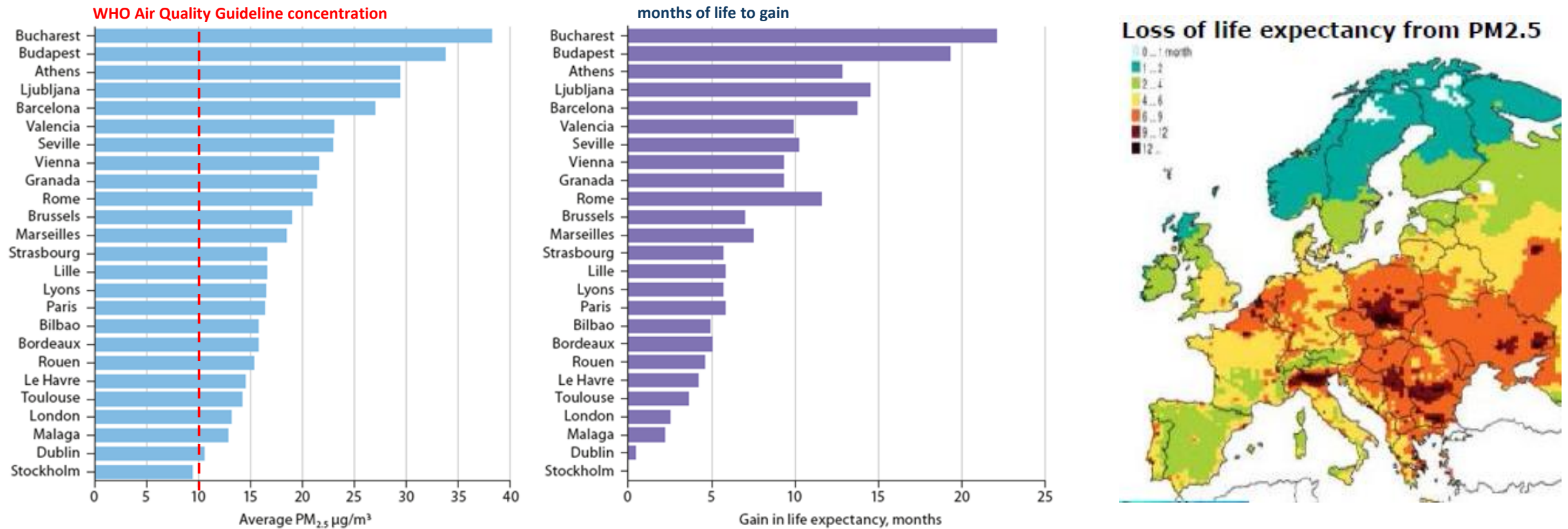


Figure 2. Projected gain in average life expectancy for people aged 30 years by reducing annual average PM_{2.5} concentrations in the 25 European cities participating in the Aphekom project to the WHO air quality guideline concentration of 10 μg/m³ (based on Aphekom, 2011).

Area 1 International Country Obligations on Air Quality

formal commitments with implementation control & sanction mechanisms

"New" EU Association Agreements

Air Quality Framework Directive

- Determine Non-Attainment Zones (= exploratory monitoring)
- Elaborate, Implement & Assess Air Quality Management Plans (= continuous monitoring)

Access to Information Directive

- (= Aarhus, with explicit focus on electronic information)

Batumi Action for Cleaner Air 2016-2021

- systematic, comparable and transparent monitoring
- national action programmes, public awareness

WHO → aim towards health-oriented air quality guideline values

Aarhus → Inform your citizens (as up-to-date as possible)

UN-ECE Indicator Reporting

CLRTAP → report & reduce national emissions

