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

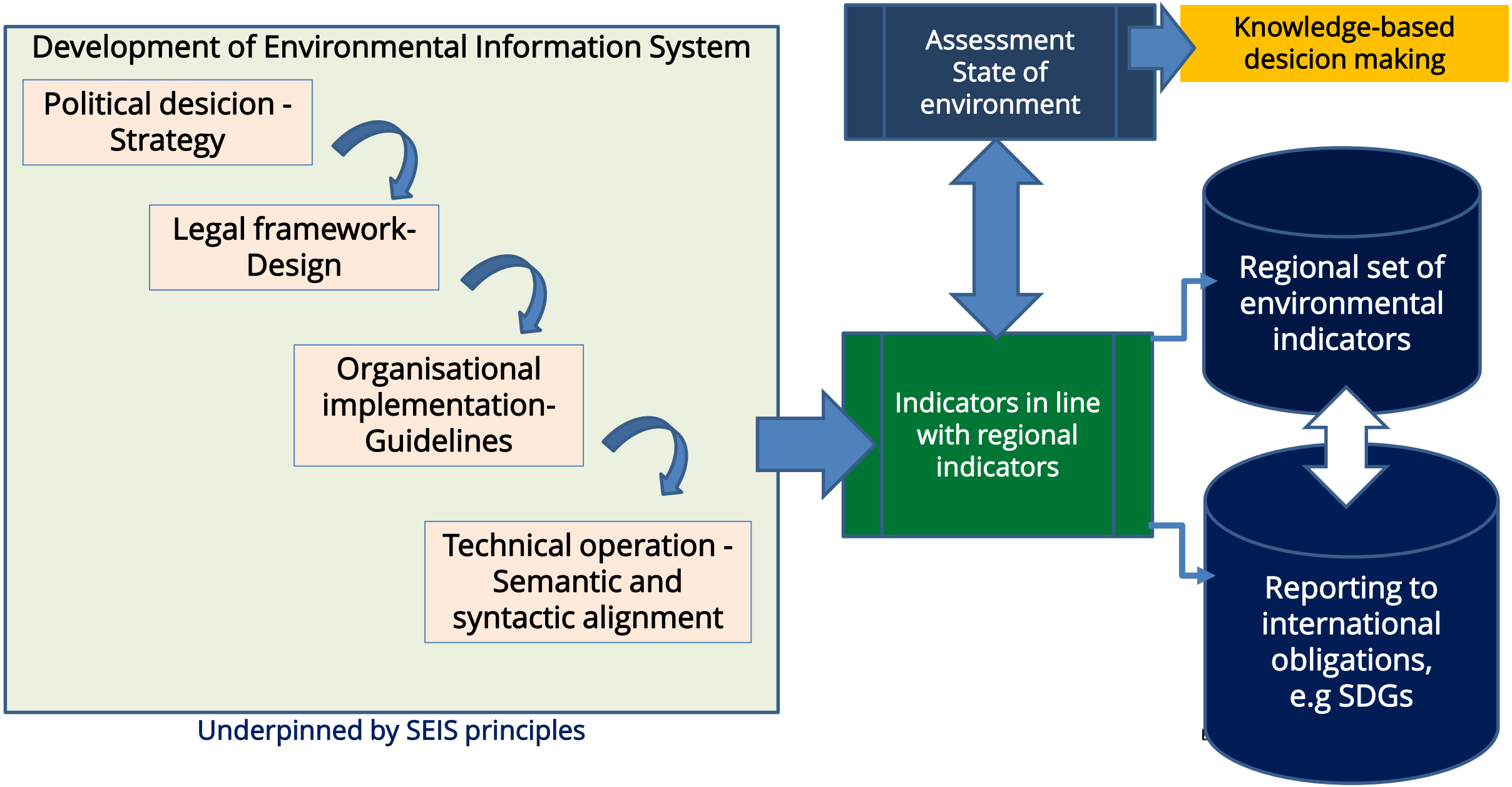
The ENI SEIS II East project (2016-2020)

Regional plan of activities

Nihat Zal

European Environment Agency

Support regional/international commitments related to environmental reporting



Proposed thematic areas for regional cooperation

Water

Biodiversity

Air

Common pilot

CORINE Land Cover

Relevance to regional and international obligations/initiatives

Water; Water quantity & water quality

- Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention)
  - Water and Health Procotol
- 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

Relevance to regional and international obligations/initiatives

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**)
- Aligment 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.

Commom pilot

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: CSI 018 , WAT 001 — Created 27 Oct 2015 — Published 21 Mar 2016 — Last modified 26 Aug 2016, 09:42 AM

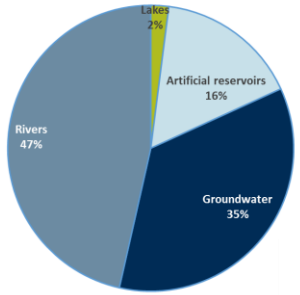
PDF

Topics: Water

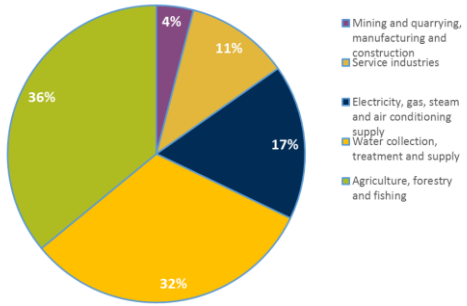
Key messages

- 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.

Annual - Water abstraction by source in Europe (2012)

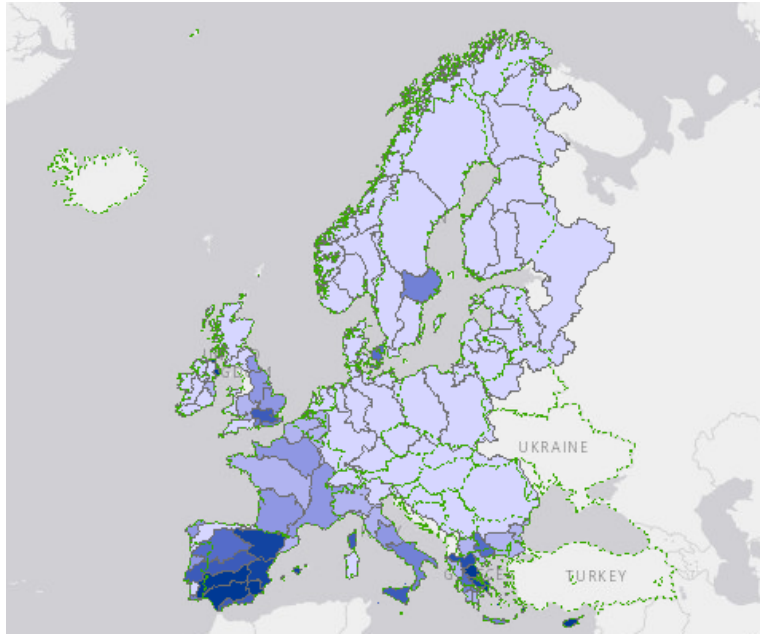


Annual- Water use by sectors in Europe (2012)

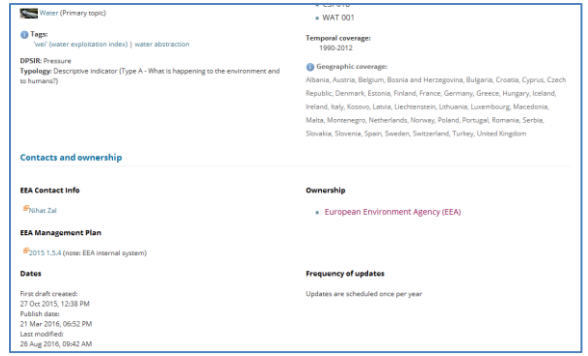


Freshwater abstraction and water use
Is the abstraction rate of water sustainable?

2) INTERACTIVE GRAPHS



3) INDICATOR MANAGEMENT SYSTEM



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

PDF

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

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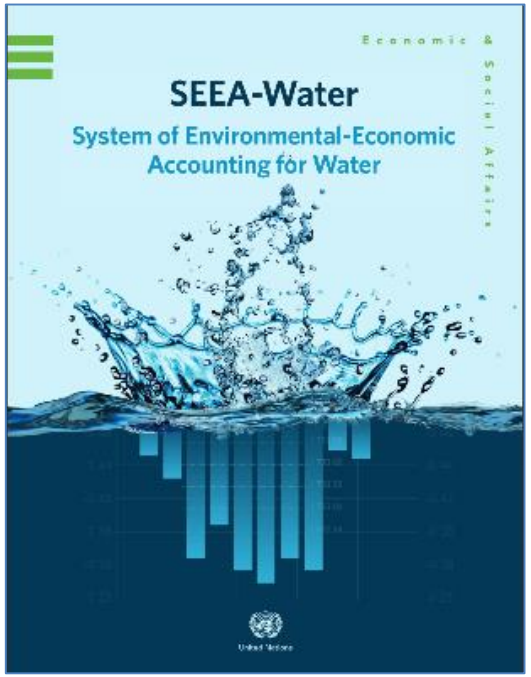
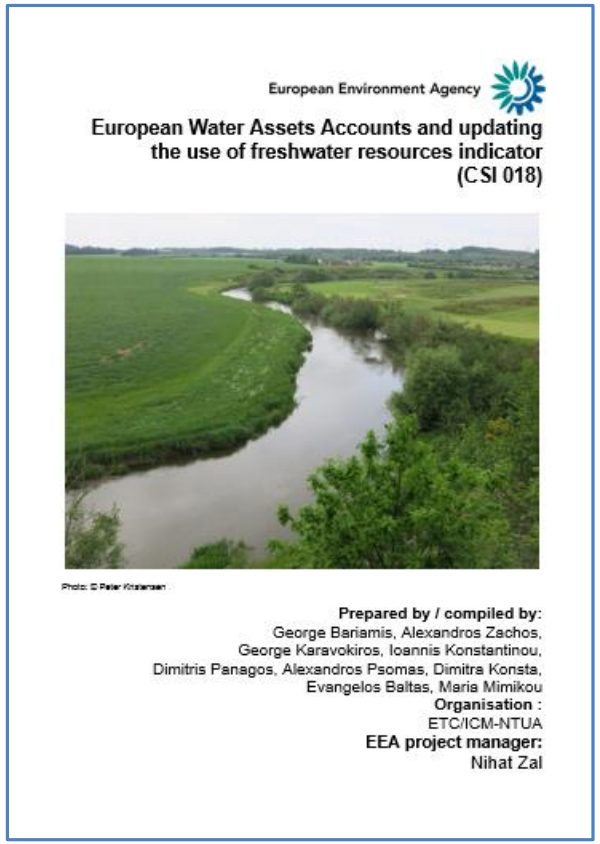
Examples from thematic areas – Water accounts



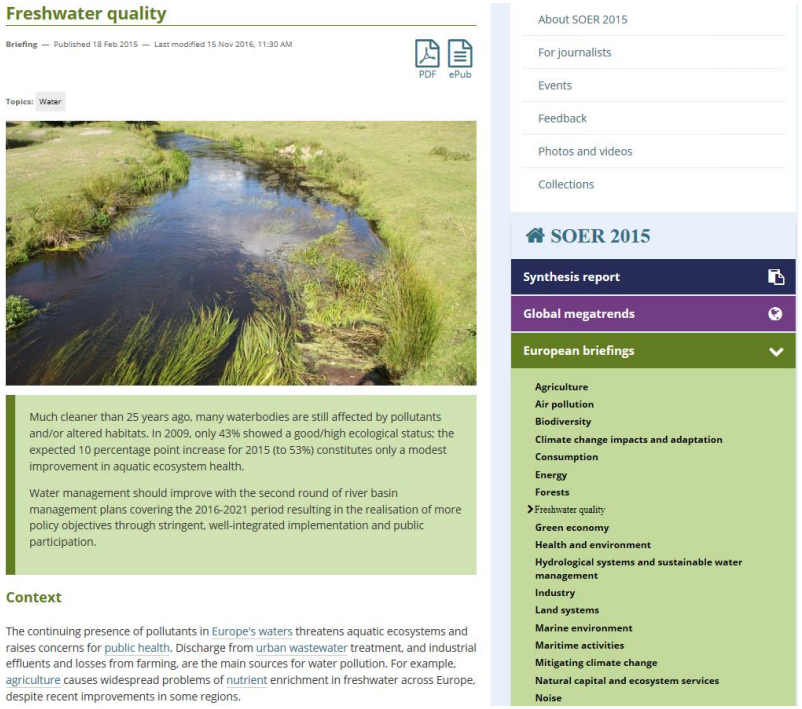

European Environment Agency

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

Prepared by / compiled by:
George Bariamis, Alexandros Zachos, George Karavokiros, Ioannis Konstantinou, Dimitris Panagos, Alexandros Psomas, Dimitra Konsta, Evangelos Baltas, Maria Mimikou
Organisation :
ETC/ICM-NTUA
EEA project manager:
Nihat Zal

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

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.

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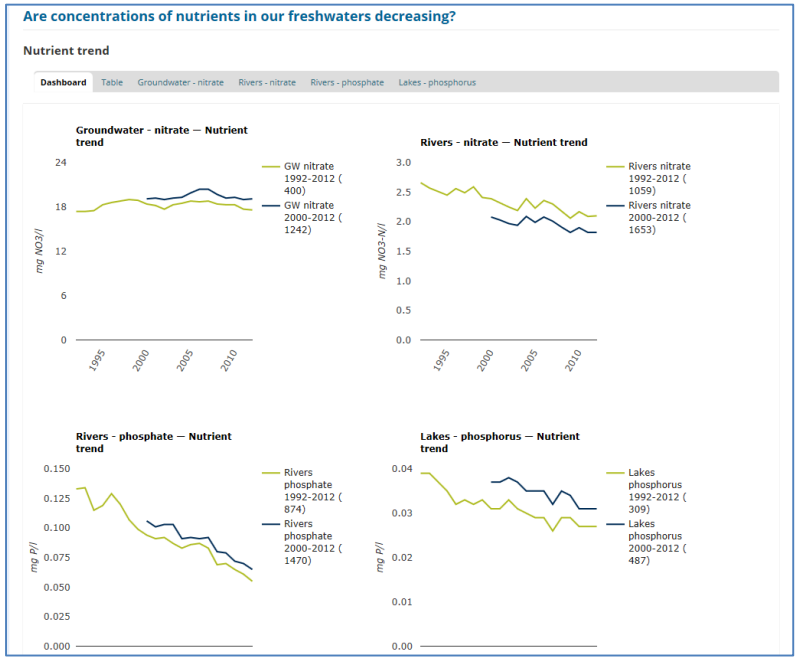
Synthesis report
Global megatrends
European briefings

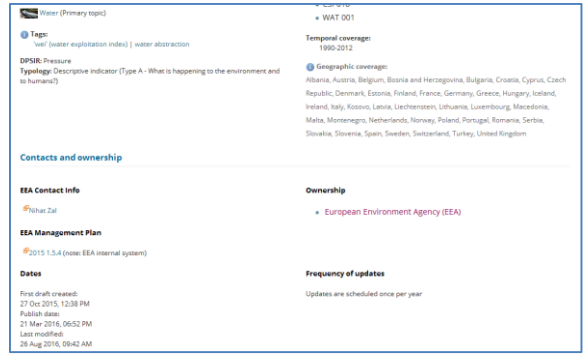
Agriculture
Air pollution
Biodiversity
Climate change impacts and adaptation
Consumption
Energy
Forests
Freshwater quality
Green economy
Health and environment
Hydrological systems and sustainable water management
Industry
Land systems
Marine environment
Maritime activities
Mitigating climate change
Natural capital and ecosystem services
Noise

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

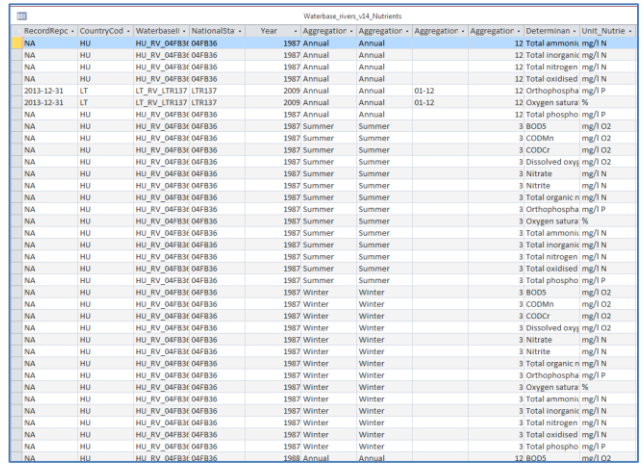
2) INTERACTIVE GRAPHS



3) INDICATOR MANAGEMENT SYSTEM



4) ACCESS TO DATA



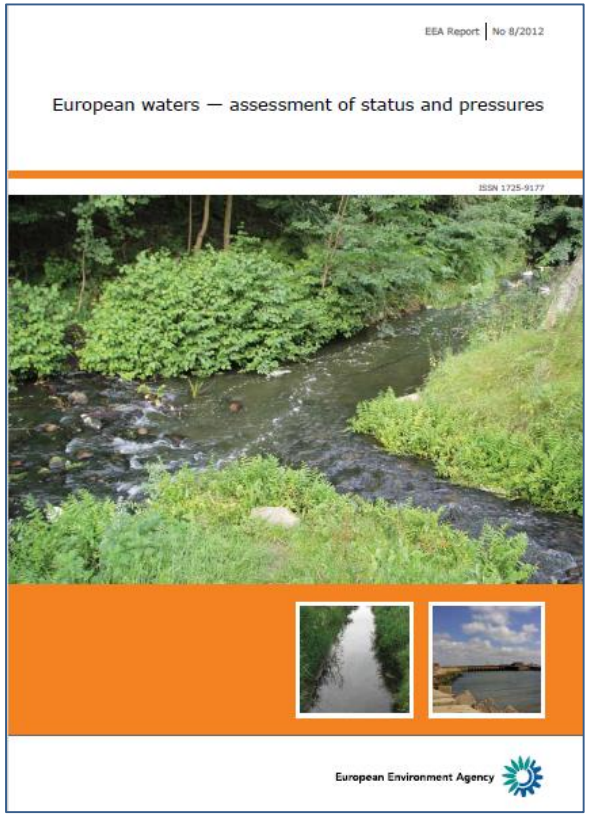
Example to the EU policy lines: Good ecological status of freshwater bodies – Water Framework Directive

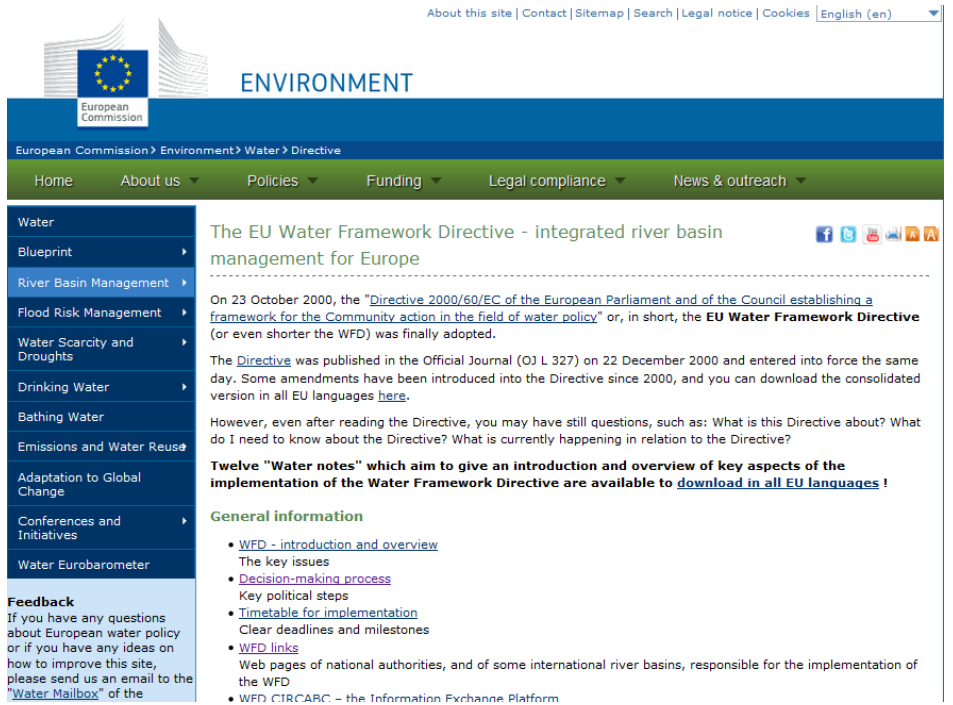
European Environment Agency

Examples from thematic areas – Water quality

WFD –
River Basin Management Plans

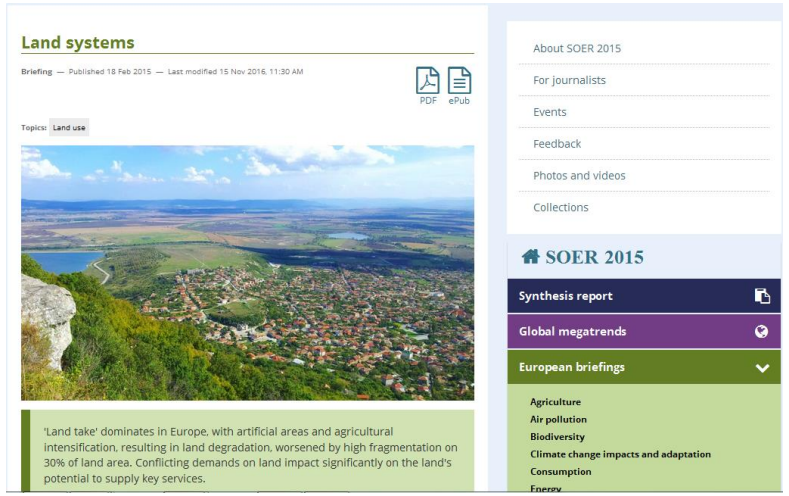
<u>WATERBASE</u>
Rivers
Lakes
Transitional, coastal and marine
Groundwater
Emissions to water





Examples from thematic areas – CORINE Land Cover

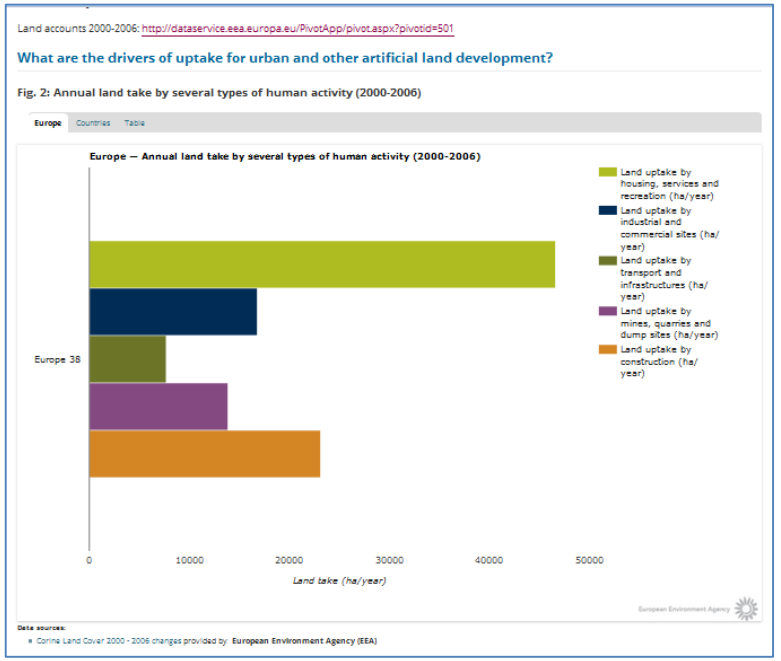
1) STORY / ASSESSMENT



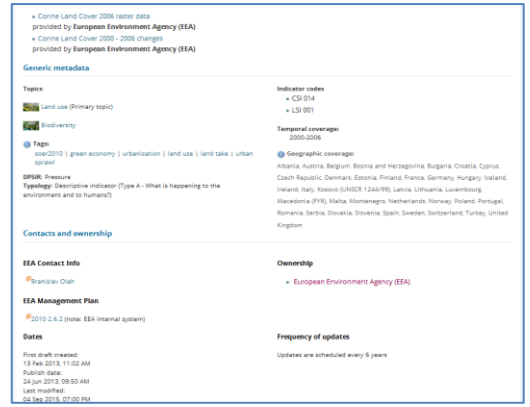
Example to the relevant EU policy line: Natural water retention measures for the adaptation to climate change

Land (up)take - CORINE

2) INTERACTIVE GRAPHS



3) INDICATOR MANAGEMENT SYSTEM



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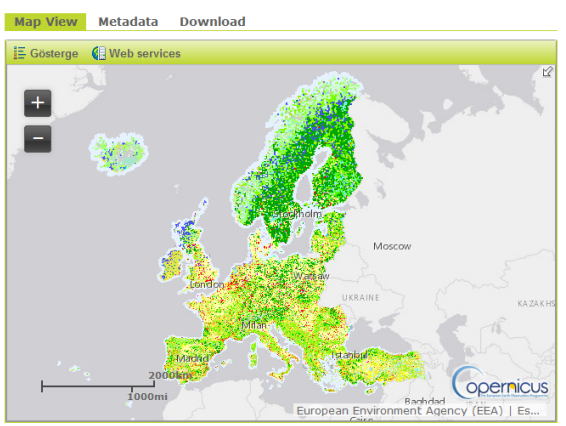


European Environment Agency

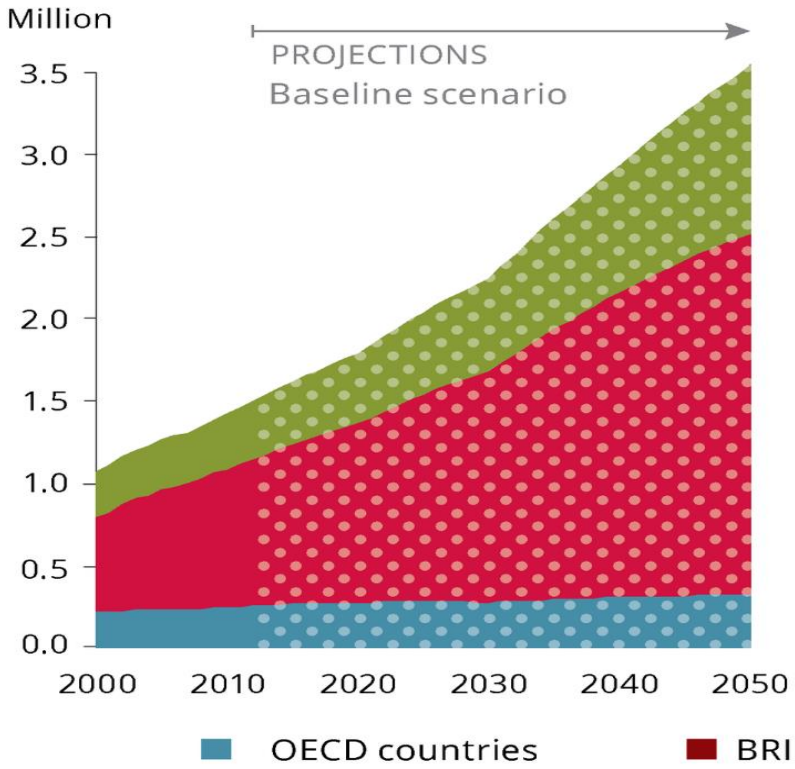
Area 1 Air Quality – why it matters / what can be gained

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

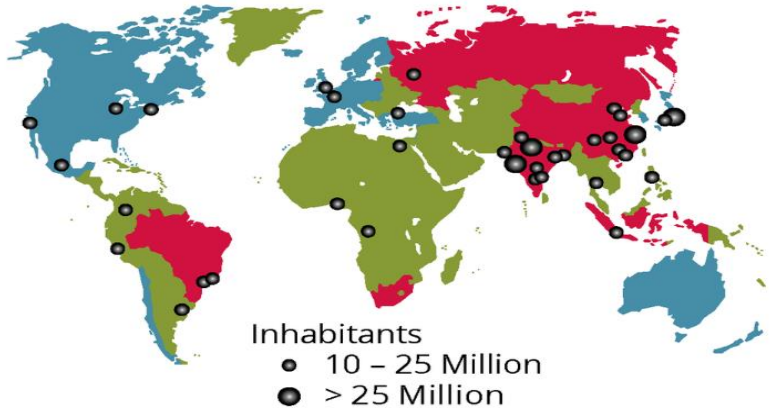
Key issue :
Fine Particulate Matter

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

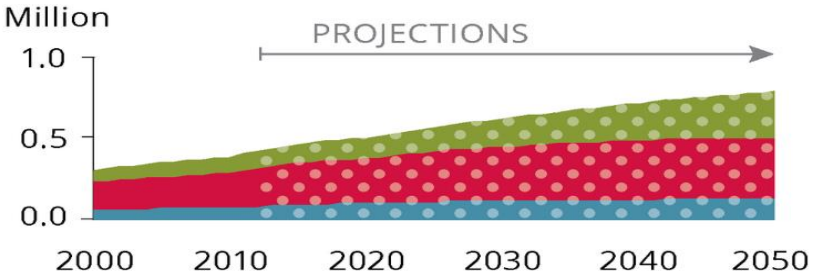
World premature deaths from exposure to particulate matter



Megacities of 2025



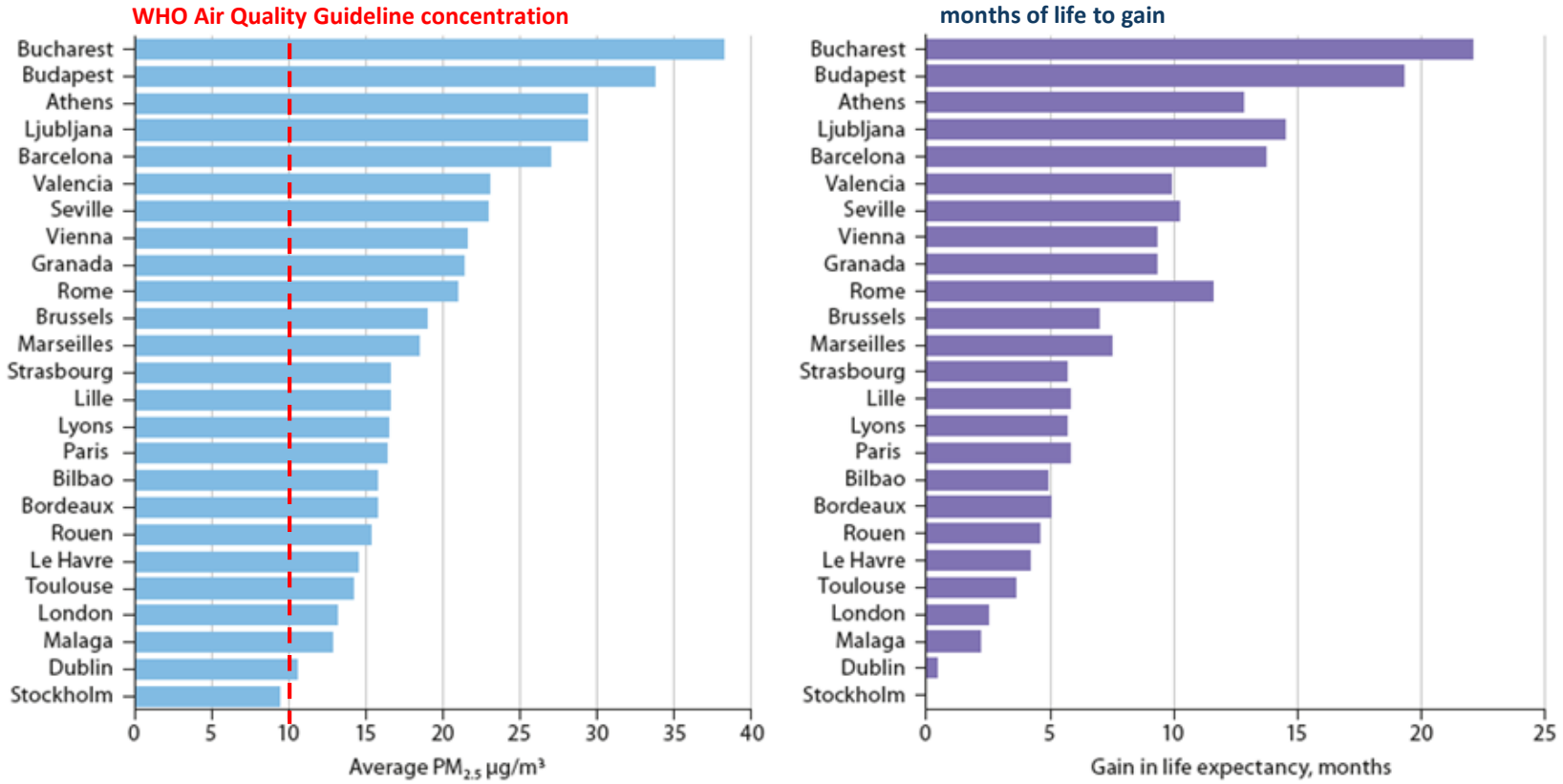
World premature deaths due to ozone pollution



OECD countries BRIICS countries Rest of the world

European Environment Agency

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



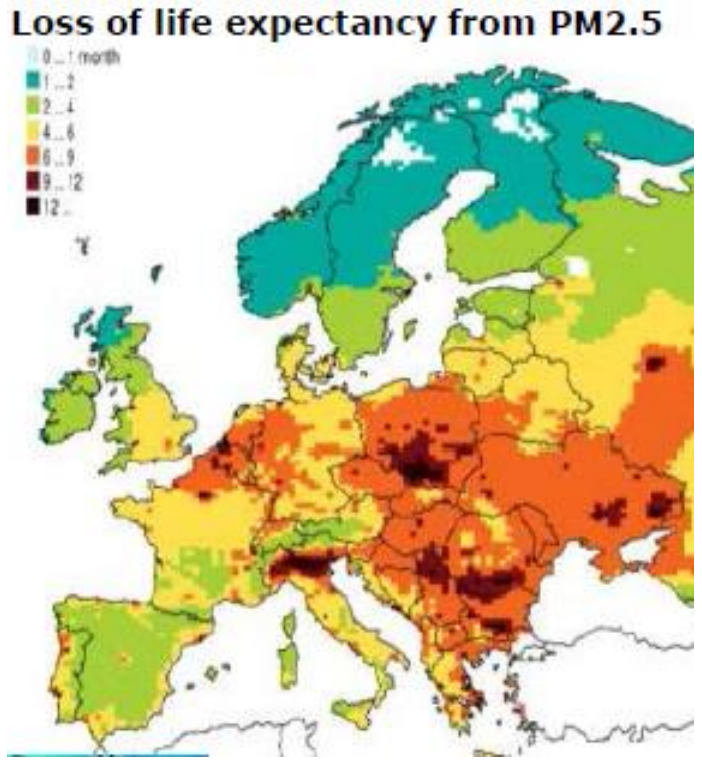


Figure 2. Projected gain in average life expectancy for people aged 30 years by reducing annual average $PM_{2.5}$ concentrations in the 25 European cities participating in the Aphekom project to the WHO air quality guideline concentration of 10 µg/m³ (based on Aphekom, 2011).

European Environment Agency

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)

WHO → aim towards health-oriented air quality guideline values

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

UN-ECE Indicator Reporting

Batumi Action for Cleaner Air 2016-2021
→ systematic, comparable and transparent monitoring
→ national action programmes, public awareness

CLRTAP → report & reduce national emissions