Shared Environmental Information System (SEIS): Regional data on water statistics (EEA)

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ETC/ICM (UFZ, Deltares)

This project is funded by the European Union
Overview

• Review of H2020 Water Indicators,
• Mapping of Water Indicators: Links with other global and regional policy processes,
• Methodology, specifications sheets,
• Discuss issues on data availability,
SEIS II: The objectives

The ETC/ICM is supporting the 9 ENI South countries in developing an information system and indicators following the SEIS principles:

**ENI SEIS II South:** This project aims to contribute to the reduction of the marine pollution in the Mediterranean by developing a Shared Environmental Information System (SEIS) supporting the regular production and sharing of quality assessed environmental data, indicators and information. The ETC partners UFZ and Deltares support this project which is running from September 2017 to December 2018.
Review Process – criteria for selection

- In line with extension of H2020,
- Allow for in-depth analysis in relation to previous assessments

IND 3. Share of population with access to an improved sanitation system

IND 4. Volume of wastewater collected, of which volume of wastewater treated

IND 5. Nutrient concentrations in transitional, coastal and marine waters

SEIS South Phase I
Support an integrated assessment

<table>
<thead>
<tr>
<th>Ind 3</th>
<th>Share of total, urban and rural <strong>population with access to an improved sanitation system</strong></th>
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<tbody>
<tr>
<td>Ind 3.2</td>
<td>Proportion of population using <strong>safely managed sanitation services</strong></td>
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<tr>
<td>Ind 4</td>
<td>Volume of <strong>wastewater collected</strong> and volume of wastewater <strong>treated</strong></td>
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<td>Ind 4.2</td>
<td>Volume of (treated) wastewater <strong>re-used</strong></td>
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<td>Ind 4.3</td>
<td><strong>Release of nutrients</strong> from municipal effluents</td>
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<tr>
<td>Ind 5</td>
<td><strong>Nutrient concentrations</strong> in transitional, coastal and marine waters</td>
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<tr>
<td>Ind 5.2</td>
<td>Bathing water quality</td>
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<tr>
<th>DRIVER</th>
<th>PRESSURE</th>
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Review Process – criteria for selection

Relevant to all countries

OUTCOMES:
- IND 4 – Type of treatment complemented by more information about the wastewater treatment infrastructure
  → Included as additional information under IND 4.1
- IND 4 – Quality of treated water/effluents to be addressed
  → Included as a new Indicator 4.3
- IND 5 - Propose to look at bathing water quality as well
  → Included as a new Indicator 5.2
- IND 4 - Address water resources with focus on water scarcity issues + non-conventional water resources
  → New indicator 4.2 on reuse of wastewater treated

1st SEIS II Indicators Workshop - with country experts (Copenhagen, May 2017)

Water Indicators Webinar - with country representatives (September, 2017)

OUTCOMES:
- Agreement with list of indicators proposed
- Some limitation of data availability identified (e.g. coastal hydrological basin)
- Use of enterococci as main indicator to monitor bathing water quality (Israel)
- Include water resource indicators, as water scarcity is an important issue for the region (Tunisia)
- Additional information under IND4 on WWT infrastructure is a very important addition (Jordan)
- Alignment with SDGs (Palestine, Plan Bleu)

In-depth consultation with countries (January-March 2018)
Link to other regional processes

- Link to other regional processes

Map the existing regional processes and identify links with other indicator sets.

- Discussion with relevant parties (e.g. UNEP/MAP)

Examples: SDGs, EcAp, IMAP, MSSD, NAPs

In line with extension of H2020.
Review Process – criteria for selection

- Able to reflect effectiveness/impact of new investments
  - Most indicators relate to pressures and responses
  - Able to assess effectiveness of new investments

- Answer the key H2020 Question
  - "What is the progress in depolluting the Mediterranean Sea?"
3. Access to sanitation
   • 3.1 Share of total, urban and rural population with access to an improved sanitation system
   • 3.2 Proportion of population using safely managed sanitation services

4. Municipal wastewater management
   • 4.1 Municipal wastewater collected and wastewater treated
   • 4.2 Direct use of treated municipal wastewater
   • 4.3 Nutrients from municipal effluents

5. Coastal and marine water quality
   • 5.1 Nutrient concentrations in transitional, coastal and marine waters
   • 5.2 Bathing water quality (Enterococci)
IND 3: population with access to improved/safely managed sanitation systems sanitation

IND 4.1: volume of municipal wastewater collected and treated

IND 4.2: Volume of treated wastewater reused

IND 4.3: Release of nutrients from municipal effluents

IND 5.1: Nutrients concentrations in coastal waters

IND 5.2: Bathing water quality

Link to Water Resources (use of non-conventional sources)
1. National Action Plans (NAPs)

2. Integrated Monitoring and Assessment Programme (IMAP)

3. Mediterranean Strategy for Sustainable Development (MSSD)

4. Sustainable Consumption and Production (SCP) Action Plan

5. Sustainable Development Goals (SDGs)


7. League Arab States (LAS)
## Mapping of Indicator processes in the Mediterranean – commonalities between H2020 Indicators and SDG, MSSD, IMPA, SCP, NAPs, League Arab States and EU

<table>
<thead>
<tr>
<th>Policy theme</th>
<th>H2020 Indicator</th>
<th>SDG</th>
<th>EU</th>
<th>LAS</th>
<th>MSSD</th>
<th>IMAP</th>
<th>SCP</th>
<th>NAPs</th>
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<tbody>
<tr>
<td><strong>IND3</strong></td>
<td>Access to sanitation</td>
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<td>3.1: Share of total, urban and rural population with access to an improved sanitation system (ISS)</td>
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<td>3.2: Proportion of population using safely managed sanitation services (SMSS)</td>
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<td><strong>IND4</strong></td>
<td>Municipal wastewater management</td>
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<td>4.1: Municipal wastewater collected and wastewater treated</td>
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<td>- Type of Treatment</td>
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<td>- Annual design capacity and number of functional MWWTPs</td>
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<td>4.2: Direct use of treated municipal wastewater</td>
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<td>4.3. Nutrients from Municipal effluents</td>
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<td><strong>IND5</strong></td>
<td>Coastal and marine water quality</td>
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<td>5.1: Nutrient concentrations in transitional, coastal and marine waters</td>
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<td>5.2: Bathing water quality</td>
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</table>
Methodology, specifications sheets,
### Consultation with countries - data availability

<table>
<thead>
<tr>
<th>Policy theme</th>
<th>Indicator</th>
<th>Geographic coverage</th>
<th>Algeria</th>
<th>Egypt</th>
<th>Israel</th>
<th>Jordan</th>
<th>Lebanon</th>
<th>Libya</th>
<th>Morocco</th>
<th>Palestine</th>
<th>Tunisia</th>
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<td>National</td>
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<td>3.2: Proportion of population using safely managed sanitation services</td>
<td>National</td>
<td>IDG calculation up to 2017</td>
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<td>Coastal hydrological basin</td>
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<td>Data linked to WWTP, can potentially be aggregated for the coastal hydrological basin</td>
<td>Data potentially there, need support on methods-geographical definition</td>
<td>Data provided in Phase I</td>
<td>Data potentially there, need support on methods-geographical definition</td>
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<td>4.2: Direct use of treated municipal wastewater</td>
<td>National</td>
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<td>Data are there, but indicator is not calculated. Time series not clear.</td>
<td>Some data available (in Tunisia reuse ~ 30%)</td>
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<td>Coastal hydrological basin</td>
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<td>4.3 Release of nutrients from municipal wastewater</td>
<td>National</td>
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<td>They might have data needed for calculating the indicator</td>
<td>They measure (real) loads of nutrients from all treated wastewater. Need support on method</td>
<td>Have data needed for calculating the indicator</td>
<td>They might have data needed for calculating the indicator</td>
</tr>
<tr>
<td><strong>IND5</strong></td>
<td>Coastal and Marine Water Quality</td>
<td>5.1: Nutrient concentrations in transitional, coastal and marine waters</td>
<td>Marine waters are the part of the ocean that extends further to the coastal waters to the open seas</td>
<td>who is the owner of the data?</td>
<td>only coastal</td>
<td>All requested data besides total P is available in yearly reports to Medpol</td>
<td>Only NO3?</td>
<td>Data for 2006, 2007 in SES I. Are there more data in MedPol?</td>
<td>Data publicly available on microbiological parameters since 2000</td>
<td>Not for Emergencies Monitoring each summer. Consider success story. Need clarification on parameters measured to be sure.</td>
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<td>Coastal waters are the part of the ocean adjacent to the coast of a state that is considered to be part of the territory of that state and subject to its sovereignty.</td>
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<td>Transitional waters are those waters between the land and the sea and include fjords, estuaries, lagoons, deltas and rises.</td>
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<td>5.2: Bathing water quality</td>
<td>Mediterranean bathing waters (coastal and transitional)</td>
<td>since 1998. Data needs specification</td>
<td>Since 2000</td>
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Long and short term goals of SEIS II

Long term – improve information systems (regional and national levels)

Short term – Integrated Regional Assessment Report (COP 20, early 2020), make use of existing (or already reported) data and possibly other type of information (e.g. case-studies)
Thank you
Merci
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