Shared Environmental Information System
SEIS Support Mechanism (ENI-SEIS II South

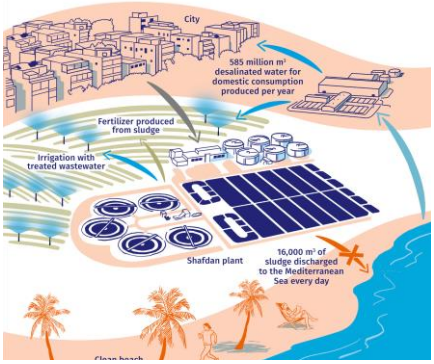
Review of progress of SEIS implementation- Israel-Country Factsheet

Israel has been making significant progress in establishing SEIS, through the implementation of the SEIS three pillars: Content, Infrastructure and Cooperation.

Israel collaborates actively in the process for establishing a regular review and reporting mechanism in the Mediterranean region for more efficient policy-making.

Israel cooperates closely with the European Environment Agency and UNEP MAP who supports the Southern Neighborhood countries towards establishing SEIS and regular reporting system to measure countries efforts towards a healthy Mediterranean. The present document provides an overview of the state of implementation of SEIS in Israel, offers recommendations on how to improve data gaps in particular in view of producing future integrated thematic assessments, and identifies areas of cooperation beyond 2020

YOU ONLY MANAGE WHAT YOU MEASURE



Edited by Sabah Nait, Environment Agency Austria

Key messages

Content

Israel has been making tremendous efforts in making data and indicators publically available and accessible since the promulgation of the Freedom of information, which specifically relates to the publication of environmental information relevant for public health.

Almost all H2020 indicators are used in state of environment reports and available online.

Infrastructure

The Ministry of Environmental Protection is building thematic national information systems (e.g. Waste, industry portal, PRTR etc.) that will be a basis for a national environmental platform information system. As future vision need to expand the system (cross - thematic, but also to other Ministries/agencies) to become a full national environmental information system.

Cooperation

Israel shows a very good level of cooperation between national stakeholders. The institutions work closely together and contribute to the elaboration of national environmental information.

Ministry of Environmental Protection
הלשכה המרכזית לסטטיסטיקה
Central Bureau of Statistics
دائرة الإحصاء المركزية
umweltbundesamt
ENVIRONMENT AGENCY AUSTRIA
European Environment Agency

Management of Environmental Information
Thematic relevant to H2020

Organizations responsible for Monitoring collecting, producing, managing and sharing environmental data and information	*Ministry of Environmental Protection*- waste, marine environment, water (wastewater) s) industrial emissions and marine environment *Central Bureau of Statistics* waste, water andindustrial emissions *Water* water and wastewater **Israel Oceanographic and limnological Research (IOLR)** Industrial emissions and marine environment *Ministry of Health* water (drinking water, wastewater and bathing water)**Local Authorities Waste (Municipal solid waste)**
Accessibility and availability of environmental information, data and indicators	Where : https://www.cbs.gov.ilhttps://www.sviva.gov.il/English/Pages/HomePage.aspx http://www.water.gov.il/Hebrew/Pages/Water-Authority-Info.aspx *Which formats* *reports and tables* *Language* *Hebrew, English and Arabic (partially)*
Environmental indicators in use	In State of environment reports (Maps and graphs) http://www.sviva.gov.il/English/ResourcesandServices/NewsAndEvents/NewsAndMessageDover/Pages/2018/02-Feb/State-of-Israeli-Environment-Report-Published.aspx

Content and infrastructure

The The challenge is providing clear insight for assessing the state of the marine environment of the mediterranean sea based on information that is generated at local, and national level in all ENI countries. This requires the production and management of regular information flows and means that all data on the environment that is collected, processed and reported must be accessible and disseminated to inform the various user groups, including public authorities and the general public, but also accessible to fulfill reporting obligation. At present, some countries have made significant progress in development of environmental information systems (EIS).

In terms of content and in order to access the degree of appropriation and implementation of the H2020 indicators and SEIS principles such as data accessiblity and availability the countries websites were harvested. Almost all countries have produced a State of Environment report. The SoERs were analysed and the usability of H2020 indicators checked as follows:

A - Accessibility of data sets: online, in reports (SoER or indicators data trends reports). If not accessible red smiley

R - Indication of the responsible authority for the production of an indicator (source): the responsible organization are indicated; **green smiley** – only the responsible organisation is indicated; **orange** smiley – none is indicated red smiley .

T - Time of update: green smiley – if the date is updated and the datasets from 2017 if date indicated but data older than 2017 Orange smiley the time of the update is not indicated red smiley

V - Availability of graphs, diagrams, maps: green smiley – available, – not available red smiley

InfoMAP- indication if the data for the assessment were provided using InfoMAP: if yes green smiley, if partially **orange smiley**, if not red smiley

Indicator factsheet: if produced green smiley if not red smiley

INDICATORS	A SoER	R	T	V	Reported to INFOMAp	Indicator factsheet	Comments/ data producer
1.1 Municipal solid waste generation							Data produced by ICBS Data were partly estimated, but no explanation of the estimation method was provided
1.a Municipal waste composition							Data produced by MoEP Data were partly estimated, but no explanation of the estimation method was provided
1.b Plastic waste generation per capita							MoEP (SoER 2017)
1.C % of population living in Costal Areas							ICBS Population inventory
1.D % of tourists in coastal Areas/ population in coastal areas							ICBS population and tourist inventory
2 a.1 Waste Collection coverage							Data were partly estimated, but no explanation of the estimation method was provided Data produced by ICBS: Population and Municipal solid waste inventory
d2.a 2 Waste covered by the formal sector							

D2b Environmental control							
D2c Resource Recovery							

INDICATORS	A SoER 2010, 2017	R	T	V	Reported to INFOMAp	Indicator factsheet	Comments
3.1.1 Share of national population with access to an improved sanitation system (ISS)							This indicator is not published in the SoER 2017 the values are close to 100% over time and therefore is not relevant to Israel
3.1.2 Share of population in the catchment/hydrological basin at the coastal area with access to an improved sanitation system (ISS)							This indicator is not published in the SoER 2017 2017 its value is close to 100% over time and therefore is not relevant to Israel
3.2.1 Proportion of national population using safely managed sanitation services (SMSS)							This indicator is not published in the SoER 2017 2017 its value is close to 100% over time and therefore is not relevant to Israel
3.2.2 Proportion of population in the catchement/hydrological basin at the coastal area using safely managed sanitation services (SMSS)							This indicator is not published in the SoER 2017 2017 its value is close to 100% over time and therefore is not relevant to Israel
4.1.1 Municipal wastewater collected and wastewater treated at national level							This indicator is produced and published in the the state of enviornment report 2017 Quantities of treated and untreated wastewater by disposal targets 1998-2015 (Effluents for irrigation ,Effluents discharged into the environment,Raw effluents discharged into the environment)
4.1.2 Municipal waste water collected and wastewater treated per catchment/ hydrological basin at the coastal area							This indicator is produced and published in the the state of enviornment report 2017

							Quantities of municipal wastewater and their levels of treatment, 1998-2015
4.2 Direct use of treated municipal wastewater at the national level							*Data is produced and published in SoER 2017*
4.3 Release of nutrients from municipal effluents per catchment/hydrological basin at the coastal area							No factsheet produced for this indicator
5.1.1 Nutrient concentrations in transitional, coastal and marine waters (station)							No factsheet produced for this indicator
5.1.2 Nutrient concentrations in transitional, coastal and marine waters (parameters)							No factsheet produced for this indicator
5.2 Bathing Water quality							Datasets on bathing water were submitted (2003-2017) and indicator assessment factsheet produced. Data and indicator related to bathing water are not published in SoER 2017 and are not published online

INDICATORS	A (SoER-2010-2017)	R	T	V	Reported to INFOMAp	Indicator factsheet	Comments
6.1.1 Total BOD load discharged from industrial installations to Mediterranean marine environment							This indicator is produced and published in the the state of enviornment report - Organic materials discharged into the sea, time series 1998-2014
6.1.2 Total Nitrogen load discharged from industrial installations to the mediterranean marine environment							Total nitrogen discharged into the sea, data series 1998-2014 published in the SoER 2017
6.1.3 Total phosphorus load discharged from industrial installations to the mediterranean marine environment							The indicator Phosphorus released into the sea is publishe in SoER 2017
6.2.1 Total heavy metals load released from industrial installations to the Mediterranean marine environment							Data on heavy metals is published in SoER 2017 with following indicators Heavy metals discharged into the sea, 1998-2014 Mercury discharged into the sea, 1998-2014

							Cadmium discharged into the sea, 1998-2014
6.2.2 Furans and dioxins load released from industrial installations to the Mediterranean marine environment							no information is found
6.2.3 Polycyclic aromatic hydrocarbons (PAH) load released from industrial installation in the Mediterranean marine environment							No Information is foud
6.2.4 Volatile Organic compounds (VOC) load released from industrial installations to the Mediterranean marine environment							No information found
6.3.1 Total quantity of generated hazardous waste from industrial installations							Information produced by ministry of environment and publishe in SoER 2017 and ICBS report (see link table below)
6.3.2 Quantity of industrial hazardous waste disposed in environmentally sound manner							Information produced by ministry of environment and published in SoER 2017 and ICBS report (see link table below)

relative to total quantity of generated hazardous waste from industrial installations							
6.4.1 Number of industrial installations reporting periodically loads of pollutants discharged to the marine and coastal environments relative to the total number of industrial installations							Reports regarding periodacilly loads of pollutants by installation discharged to marine and coastal environmental exist in the PRTR system. Information on installations reporting periodically loads of pollutant in the PRTR are also published in the SoER 2017
6.4.2 Number of environmental inspections carried out by enforcement authorities in which industrial installations were found to be in breach of laws and regulations relative to the total number of executed							No information found
6.4.3 Number of eliminated hotspots identified in the updated NAPs relative to the 2001 and 2015 baseline							No information found

Ministry of Environmental Protection

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umweltbundesamt
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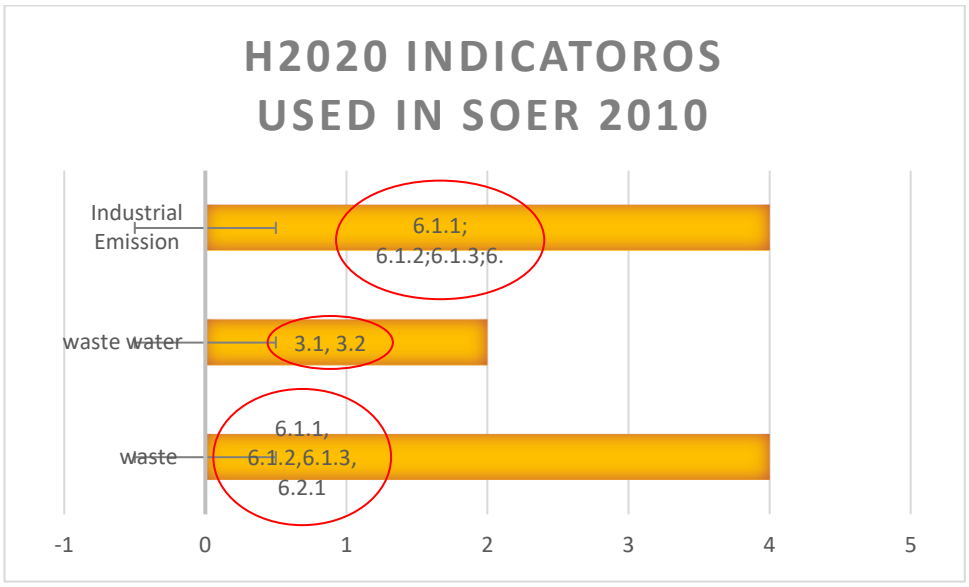
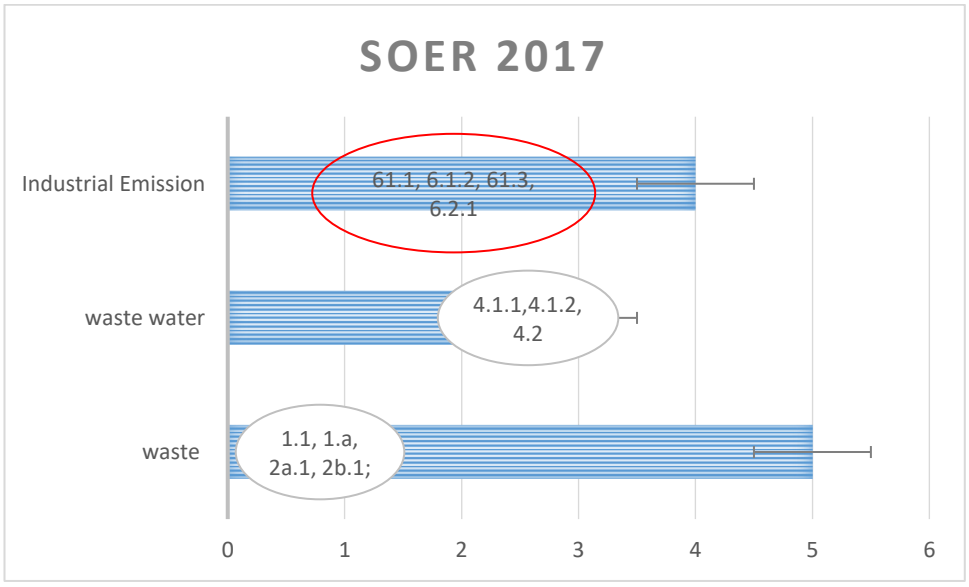
H2020 indicators in use in the production of national state of environment Report





Indicator H2020

Data	Link	SEIS-H2020 Indicator
Data on quantities of waste generated in the manufacturing and electricity industries (hazardous), Composition of industrial waste mixed by type of material, quantities of waste generated by industry	https://www.cbs.gov.il/he/mediarelease/DocLib/2019/376/02_19_376b.pdf Hebrew	6.3.1,
Data on recycling of industrial waste, hazardous and non-Hazardous waste	https://www.cbs.gov.il/he/mediarelease/DocLib/2019/376/02_19_376b.pdf Hebrew	6.3.2
Waste water treated in waste water treatment plants	https://www.cbs.gov.il/he/mediarelease/DocLib/2019/376/02_19_376b.pdf Hebrew	4.1.1
Bathing water	https://www.cbs.gov.il/he/publications/doclib/2019/23.shnatonwaterandsewage/st23_04.pdf	5.2

Potential use of H2020 indicators for monitoring SDGs

SDG	SDG goal	H2020 indicators
	6.2 By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations 6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of	3.1.1, 3.1.2, 3.2.1, 3.2.2

	hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally 6.4 By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity 6.5 By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate	
	14.1 By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution 14.2 By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans	*All SEIS-h2020 indicators*
	11.6 By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management	1.1, 1.a, 1.b, 2.a.1, 2.a.2, d.2.b, 6.3.1, 6.3.2
	12.2 By 2030, achieve the sustainable management and efficient use of natural resources 12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment 12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse **Waste management (recycling reuse** **Wastewater treated**	*1.1, D2b, 4.1.1, 4.1.2, 4.2*
	9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities	*Link to type of treatment –innovation and adequate infrastructure*

Existing Information systems and SEIS Principles
National Infrastructure

Waste Information System

Over the past 3 years, MoEP has invested in developing and operating a new Waste Data System that will receive and process all waste treatment facilities weighing data.

Currently all the landfills, sorting facilities and transfer stations are required to develop their own interface in order to be able to report through the system. In the first phase, MoEP demanded from 40 MSW landfill sites and transfer stations to report through the Waste Data System. MoEP will soon demand construction and demolition waste treatment facilities and landfills to report their weighing data to Waste Data System. Initial steps have been undertaken. Later, all the recycling facilities (150) will have to report to the system too. As there is no law to enforce the use of the IT platform, the reporting requirements are described in the business licenses for all waste facilities. So far, all 11 MSW landfills are reporting to Waste Data System and it is a big success. The problems encountered during the integration process are related mainly to the fact that the landfill weighbridges use different interfaces, so it is not possible to have a "one program fits all solution". Each landfill should find its own solution to report to the IT platform.

The final stage of the implementation is to receive, through reporting to the system weighing data, reports from all the Local Authorities. This step will enable MoEP to complete the waste cycle of data collection, from the waste production source to the treatment end. There are 255 Local Authorities in Israel and there are large gaps and differences among them regarding their Waste Management policy. Implementation of a Waste Data System will require investment, training and further changes in legislation.

SEIS principles		comments
Managed as close as possible to its source		
Collected once, and shared with others for many purposes		
Readily available to easily fulfill reporting obligations		Exists and is constantly improving. regular reports and in parallel work on system monitoring tools and conduct server capacity tests .
Easily accessible to all users		The IT infrastructure was developed and the Ministry strives to constantly improve its accessibility.
Accessible to enable comparisons at the appropriate geographical scale and citizen participation		It will enable comparisons under limitations.
Fully available to the general public at the national level in the relevant national language(s)		not be citizen participation
Supported through common free open software standards		Partially planned in the future

Pollutant Release and Transfer Register (PRTR)

In addition to Israel's commitments to the OECD and its accession to the UNECE Kiev Protocol in January 2013, the adoption of the law for Environmental Protection (Releases and Transfers to the Environment –Reporting and Registering Obligations) Law in April 2012 was a strong basis for the establishment of PRTR. The law requires facilities with significant impact on the environment to report on their emissions of 114 pollutants – 88 pollutants emitted to air and 94 pollutants emitted to water, marine environment and soil, as well as on their transfers of waste. The industries have the obligation to report data and the MoEP has the obligation to maintain the data in register/ IT system and publish it to the public. Currently 573 installations are reporting under PRTR.

While PRTR covers big installation ICBS survey's cover all the industrial activity and use PRTR data for comparison.

Web-based information system based on data reported by industries and made accessible to citizens

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Accessible to enable comparisons at the appropriate geographical scale and citizen participation	
Fully available to the general public at the national level in the relevant national language(s)	
Supported through common free open software standards	

Wastewater information System

A wastewater information system based on regulation Effluent quality standards and rules for sewage treatment 2010 (Inbar Standards) was developed. The objective of the regulation is to protect public health and to prevent the pollution of water resources from effluents and sewage. The regulation also gives a list of 36 parameters and corresponding limit values (BOD; COD, PH, total nitrogen etc.) Additional provisions in the regulation relate to the preparation of monitoring and control plans to check the quality and quantity of sewage discharged to a wastewater treatment plant and to sampling and testing, at defined frequencies, at the exit of the wastewater treatment plant. The monitoring plans and the results as well as sampling and test results have to be published on the websites of the MoEP, Ministry of Health and Water Authority.

The wastewater information System shared among the Ministry of Environmental protection, Ministry of health and Israeli Water Authority; and it is based on the SEIS principles. .

The new information system shared by the three mentioned ministries is going to facilitate, reporting of the supervised wastewater treatment plants. The new system is not going to be available to the public

For more information on regulation:

https://www.sviva.gov.il/English/Legislation/Documents/Water%20Laws%20and%20Regulations/WaterRegulations-MetalsAndOtherPollutants-2000.pdf

SEIS principles	
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Supported through common free open software standards	

Content, infrastructure Shortcomings and recommendations

Israel has been making significant progress in enhancing the accessibility of SEIS- H2020 environmental Indicators. Part of those indicators are being used in the indicator-based state of environment Report that is produced and published every 5-7 years by the Israeli Ministry of Environment. State of environment report 2010 and 2017 both available online.

Almost all the data for the population of the SEIS-H2020 indicators were submitted using the InfoMAP plateform

A process for ensuring a regular reporting under H2020 is not fully in place. Almost all data and indicator assessment for all the thematic were submitted except for most of the indicators for industrial emissions. The data for these indicators are reported under the Barcelona Convention. To ensure a regular production of indicators factsheets related to industrial emissions and the use of data submitted to the Barcelona convention needs to be further discussed and clarified in the next phase of the project.

Need to consider emergent issues related to H2020 such as climate change adaptation and mitigation and threats to biodiversity.

- ✓ Share experience on how to improve data on industrial waste water (European, international experience)
- ✓ Workshop on nutrient statistics (marine environment) this thematic being a new for the CBS
- ✓ Support the Ministry of Environment in establishing a platform/ environmental information system cross thematic and cross institutions and agencies.
- ✓ Dedicate support to overcome data gaps and improve data availability