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

Review of progress of SEIS implementation- Egypt-Country Factsheet

Egypt has been working on establishing SEIS through the implementation of the SEIS principles and three pillars (Content, Infrastructure and Cooperation), but the progress has been very slow.

Egypt collaborates in the process for establishing a regular review and reporting mechanism in the Mediterranean region for more efficient policy-making. The national focal points and thematic experts participate actively in different meetings organized by European Environment Agency.

Egypt 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 Egypt, 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

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Key messages

Content

Progress towards establishing a regular data flow and stabilisation of the production of H2020-SEIS indicators has been very slow. The state of environment report published in 2017 is based on a description of the situation using just few numbers and does not use H2020 indicators or any other indicators.

The SoER 2019, which is being currently compiled, will use the SEIS-H2020 indicators

Infrastructure

Egypt has different information systems in place such as the sea water quality monitoring program, and the industrial emissions continuous monitoring network for air pollutant emissions from industries. These information systems are not publicly accessible.

There are no information systems in place for waste. There is a plan for building a waste information system (real time Monitoring) of quantities of waste disposed in the landfill and quantities sent to

Cooperation

Egypt shows some limitation in coordination and networking among different ministries and authorities responsible for environment management (there are no data sharing networks, data sharing is upon request). Building a national team and establishing a regular exchange protocols is very urgent step. CAPMAS in cooperation with all the related agencies, on launching the national strategy for statistics, which aims to enhance the cooperation between different ministries and authorities in data sharing and data, exchange.

Management of Environmental Information
Thematic relevant to H2020

Organizations responsible for Monitoring collecting, producing, managing and sharing environmental data and information	***Ministry of Environment*** hazardous and solid waste, waste water and industrial emission ***Central Agency for Public Mobilization and Statistics*** waste and water resources and waste water ***Ministry of water resources and irrigation*** hydrological data, level of aquifers and water quality ***Holding Company for Water& Waste Water*** waste water quality, drinking water ***Ministry of Health*** *and population* water (drinking water, water quality)
Accessibility and availability of environmental information, data and indicators	**Where** : https://www.capmas.gov.eg/Pages/Publications.aspx?page_id=5104&Year=23184 ***Which formats*** *reports and tables* ***Language*** *Arabic English*
Environmental indicators in use	In State of environment reports (Maps and graphs) http://www.eeaa.gov.eg/en-us/mediacenter/reports/soereports.aspx

Content and infrastructure

The following table gives an overview of SEIS-H2020 indicators datasets reported to the INFOMAP platform and

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 2016 if date indicated but data older than 2016 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 2017	R	T	V	Reported to INFOMAp	Indicator factsheet	Comments/ data producer
1.1 Municipal solid waste generation							No data on waste generation available online. The SoER 2017 dedicates a section for waste in a very descriptive way without figures, this data will included in the SoER 2018 and 2019 (not published yet). This indicator were used in 2016
1.a Municipal waste composition							SoER 2017 doesn't contain any information on waste composition. this data will included in the SoER 2018 and 2019 (not published yet). This indicator was used in SoER 2016
1.b Plastic waste generation per capita							No mention of plastic in SoER 2017
1.C % of population living in Costal Areas							The SoER 2017 doesn't mention the drivers population
1.D % of tourists in coastal Areas/ population in coastal areas							No data on tourists in SoER 2017
2 a.1 Waste Collection coverage							The SoER 2017 dedicates a small section on waste collection coverage, Percentage of solid waste collected and planned to be appropriately collected by 2020 and 2030 (80%) but no time series . this indicator was used in 2016

d2.a 2 Waste covered by the formal sector							No information in the SoER 2017
D2b Environmental control							There is no information regarding the number of uncontrolled landfills in the SoER. This indicator was used in SoER 2016
D2c Resource Recovery							No information in the SoER 2017. But this indicator was used in SoER 2016

INDICATORS	A (SoER 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 But some data was provided for the compilation of the H2020 Regional report and indicator factsheet.
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. Some data was provided (sent by Email) for the compilation of the H2020 Regional report and indicator factsheet
3.2.1 Proportion of national population using safely managed sanitation services (SMSS)							This indicator is not published in the SoER 2017. Some data was provided for the compilation of the H2020 Regional report and indicator factsheet
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, same as above
4.1.1 Municipal wastewater collected and wastewater treated at national level							This indicator is not used in SoER 2017
4.1.2 Municipal waste water collected and wastewater treated per catchment/ hydrological basin at the coastal area							This indicator is not used in the the state of enviornment report 2017

4.2 Direct use of treated municipal wastewater at the national level							*The SoER mentions the reuse of waste water in industry and agriculture but no indicator (no time series are published)*
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 information in SoER 2017 but was used in the SOER 2016 This indicator is used in the report delivered
5.1.2 Nutrient concentrations in transitional, coastal and marine waters (parameters)							This indicator is not used in SOER 2017. This indicator is used in the report delivered by regional expert
5.2 Bathing Water quality							There is no data on bathing water in SoER 2017

Industrial emissions

INDICATORS	A (SoER-2016)	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 not produced and not published on SoER 2016.
6.1.2 Total Nitrogen load discharged from industrial installations to the mediterranean marine environment							This indicator is not produced and not published on SoER 2016.
6.1.3 Total phosphorus load discharged from industrial installations to the mediterranean marine environment							This indicator is not produced and not published on SoER 2016.
6.2.1 Total heavy metals load released from industrial installations to the Mediterranean marine environment							This indicator is not produced and not published on SoER 2016.
6.2.2 Furans and dioxins load released from industrial installations to the							no information is found

Mediterranean marine environment							
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							Some information on hazardous waste is found on CAPMAS website.
6.3.2 Quantity of industrial hazardous waste disposed in environmentally sound manner relative to total quantity of generated hazardous waste from industrial installations							This indicator is not used in SoER 2017

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							*No information is published at the national level*
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 is published at the national level
6.4.3 Number of eliminated hotspots identified in the updated NAPs relative to the 2001 and 2015 baseline							No information is found in SoER



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Arab Republic of Egypt-Ministry of Environment


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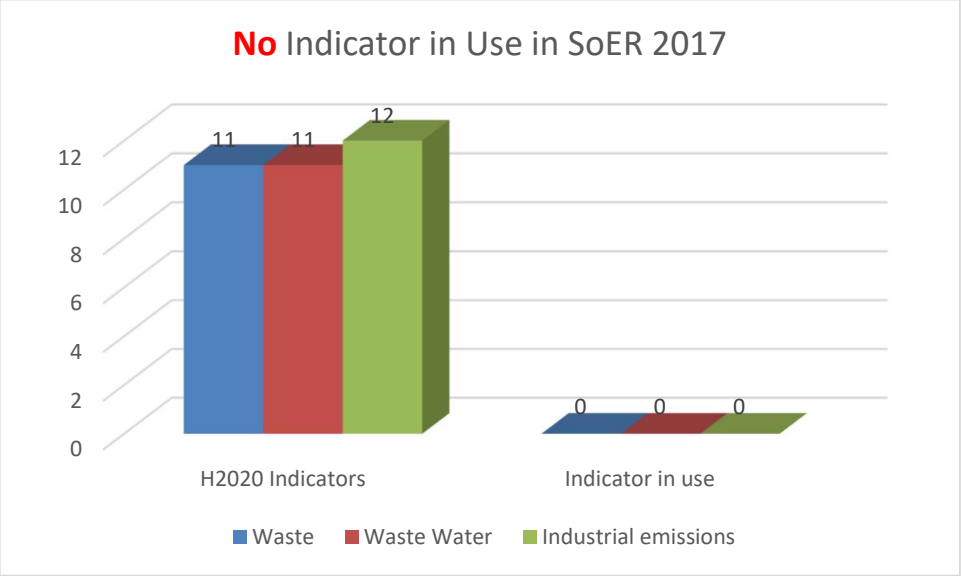
ENVIRONMENT AGENCY AUSTRIA

European Environment Agency

H2020 indicators in use in the production of national state of environment report 2017- but some of those indicators were used in previous publications (e.g 2016)



Use of SEIS- H2020 indicators in Statistical reports

Data	*Link*	*SEIS-H2020 Indicator*
Waste water treated according to waste water treatment Total Quantities of Treated Wastewater and Allocated Areas for Reuse	https://www.capmas.gov.eg/Pages/Publications.aspx?page_id=5104&Year=23184 Arabic English	4.1.1 4.2
Quantities of Recycled Waste Water for Irrigation	https://www.capmas.gov.eg/Pages/Publications.aspx?page_id=5104&Year=23184 Arabic English	4.2

Forests in 2017		
Quantity of Generated Hazardous Waste at Governorate Level (Ton / Year) From 2011 to 2016	https://www.capmas.gov.eg/Pages/Publications.aspx?page_id=5104&Year=23184 Arabic English	6.3.1

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 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	*3.1.1,* *3.1.2,* *3.2.1,* *3.2.2*
	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	*1.1, D2b,* *4.1.1, 4.1.2,* *4.2*

	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**	
	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 of waste, waste water and best available techniques*

Existing Information systems and SEIS Principles
National Infrastructure

Egypt has different environmental information systems; these systems are not accessible for the public

- ### *Water Information system*

There are a coastal and sea water annual monitoring program for the Mediterranean Sea with total 30 sampling location 4 times per year, this program is working since 1998 until now. There are also another annually monitoring program for the water quality in the Egyptian lakes including the northern lakes (which locate inside the Mediterranean coastal area).

These programs including monitoring the fiscal and chemical parameters such as COD, BOD, DO, TSS, PH, temperature and conductivity, it also monitors the bacteriological concentration and the heavy metals.

The results of these monitoring programs shared by the ministry of environment with the coastal governorates, ministry of water resources and irrigation, CAPMAS, and other related ministries and authorities. These results are also shared in reports format (paper) for public in the EEAA website (http://www.eeaa.gov.eg/eimp/coastalwater_reports.html).

For the waste water, the Egyptian Water Regulatory and Consumer Protection Agenc (EWRA) is produced an annual report with different indicators for drinking water and waste water, these reports are publicly accessible for public through EWRA website.

SEIS principles	**Water Quality**	**Waste water**	**Remarks**
Managed as close as possible to its source	●	●	
Collected once, and shared with others for many purposes	●	●	
Readily available to easily fulfill reporting obligations	●	●	**Not for all SEIS indicators.** **Mostly at national level.**

Easily accessible to all users			**In reports format.** **Other levels of data are being shared between different ministries and authorities upon request.**
Accessible to enable comparisons at the appropriate geographical scale and citizen participation			**Most of data monitored are being shared between different ministries and authorities upon request.** **Available for public in reports format.**
Fully available to the general public at the national level in the relevant national language(s)			**Available for public in reports format.http://www.eeaa.gov.eg/en-us/topics/water.aspx**
Supported through common free open software standards			**Each information system uses specific software, there are no obligations for the used software type.**

- *Industrial emissions Information system*

The Ministry of Environment have a national network for industrial emissions, this network monitors the air pollutant emissions from the industrial facilities in continuous manner, contains 331stacks of 73 big industrial facilities.

For the industrial waste water, EEAA - as authorized agency for environmental inspection on the industrial facilities – conduct a periodically environmental inspection for these industrial facilities, this inspection is applied according to the related laws and regulations. These inspections are conducted in a field sampling bases with concern to the identified parameters through the related laws and regulation. There are no indicators related to the pollution loads with each parameter. The parameters measured are laid in the executive regulation and comprise the following ::

Temperature, PH, BOD, COD, TDS, Volatile Solids, Suspended materials, Turbidity, Sulphides, Oil and Greases, Hydrocarbons of oil origin, Phosphates, Nitrates, Phenolates, Fluoride, Aluminium, Ammonia (nitrogen), Mercury, Lead, Cadmium, Arsenic, Chromium, Copper, Nickel, Iron, Manganese, Zinc, Silver, Barium, Cobalt, Pesticides, Cyanide, Fecal Coliform Count.

http://www.eeaa.gov.eg/en-us/laws/envlaw.aspx

There are no PRTR system in place in Egypt.

SEIS principles	Air pollution emissions	Industrial waste water	Remarks
Managed as close as possible to its source			

Collected once, and shared with others for many purposes			
Readily available to easily fulfill reporting obligations			**Not for all SEIS indicators.** **Only within the governmental agencies.**
Easily accessible to all users			**Only within the governmental agencies.**
Accessible to enable comparisons at the appropriate geographical scale and citizen participation			**Only within the governmental agencies.**
Fully available to the general public at the national level in the relevant national language(s)			**Not available for public**
Supported through common free open software standards			**Each information system uses specific software, there are no obligations for the used software type.**

- *Waste Information system*

Currently there is no environmental information system in Egypt for waste. Waste data provided for the assessment is based on estimation. There is a project planned for the establishment of waste information system, the system will receive in real time quantities of waste disposed in the landfill and waste sent to transfer stations. The stations and landfills are equipped with weighbridges to enable the weighing of trucks. At the time being all reporting is done on paper which makes it difficult to access the data and difficult for inspector. The plan is to share the system with other related ministries, authorities, and governorates.

Currently, the waste data and indicators are being shared through the SoER which dedicating separate chapter for waste, and the publications of CAPMAS.

A detailed waste Master plan have been conducted for all governorates, but it is not publicly shared.

SEIS principles	**Air pollution emissions**	**Remarks**
Managed as close as possible to its source		
Collected once, and shared with others for many purposes		
Readily available to easily fulfill reporting obligations		**In reports format.** **Other data levels only available within the governmental agencies upon request.**
Easily accessible to all users		**In reports format.**

		Other data levels only available within the governmental agencies upon request.
Accessible to enable comparisons at the appropriate geographical scale and citizen participation		**In reports format.** **Other data levels only available within the governmental agencies upon request.**
Fully available to the general public at the national level in the relevant national language(s)		**In reports format only.**
Supported through common free open software standards		**Each information system uses specific software, there are no obligations for the used software type.**

Shortcomings and Recommendations

Content, infrastructure Shortcomings	*Recommendations*
Unfortunately, the progress in enhancing the accessibility of SEIS environmental indicators is currently moderate with a potential to rise with the issuance of the coming SoE reports. The problems encountered are mainly linked to data availability, accessibility and Monitoring. *Lack for modern data exchange mechanisms through various governmental ministries and agencies.*	Continue advancing in putting in place a regular data flows for the priority areas of H2020 for the monitoring of depollution of the Mediterranean Sea and reporting to EEA and ensure that all indicators are produced on regular basis. Including all these data in the SoE reports. Take fast steps towards the establishments and upgrades the environmental information systems. Maintain cooperation and interaction between environmental information producers to achieve full SEIS implementation; maybe through signature of MoUs
Lack of Monitoring of the required parameters, for implementation of industrial emissions indicators	Review of legislation in place and adapt to the reporting requirements of the Barcelona convention
Adequate monitoring of Marine litter is lacking hence data for implementation of the related indicators is not being produced. Gaining adequate information, monitoring skills and field training for assigned national team from relevant stakeholders to ensure accurate monitoring results and regular assessments is crucial. Establishment of database and reporting templates are expected to be ready and available for future activities in the framework of IMAP information system	Designing of regular programme for monitoring marine litter is necessary to ensure a regular data flow to fulfil reporting obligations and inform decision makers. Establishment of Regular monitoring and assessment of marine litter distribution and abundance in preselected sites along Egyptian northern coastal areas according to UNEP/MAP metadata and building capacities in the field of monitoring, assessment and management of marine litter and micro-plastics. Furthermore the Egyptian Ministry has expressed the need for technical training on micro-plastic laboratory analysis
Lack of information and data in the field of waste composition and characterisation,	To ensure accurate waste composition and characterisation data, and comparable (for all governorates) clear methodology and criteria for sampling is needed. Support in drafting clear guidelines and training, and monitoring waste characterization is needed. In addition shifting towards more green economy and circular economy is urgent to ensure a wise management of resources.

Indicators related to hazardous waste were not implemented due to lack of information and data	Monitoring and regular data collection on quantities of hazardous generated by industrial sector is necessary to fulfil the reporting obligation and for the better management of waste

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Sources: to measure progress in the appropriation of methodologies and SEIS principles the State of Environment report 2017, statistical report 2017 and indicator assessment fact sheets produced 2019-2020