

Industrial Emissions Indicator IND 6.4:

Compliance measures aiming at the reduction and/or elimination of pollutants generated by industrial sectors

Sub-indicators

- 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.
- 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 inspections.
- 6.4.3) Number of eliminated hotspots identified in the updated NAPs relative to the 2001 and 2015 baselines.

Rationale

Justification for indicator selection

This indicator reflects the compliance measures that are called for in the Strategic Action Programme (SAP-MED) and stipulated for in the legally binding measures and regional plans in the framework of the implementation of Article 15 of the LBS Protocol of the Barcelona Convention.

A close examination of pollution reduction programmes and environmental initiatives related to pollution reduction and control in the Mediterranean Sea reveals that this indicator is referenced in the Countries' updated NAPs. It is in line with the compliance requirements of the Regional plans on the reduction of BOD, elimination and phasing out of POPs and mercury. This indicator also suggests whether the Country in question possesses the institutional structures necessary to enforce its adopted legal requirements. It reflects presence of trained and competent personnel in its institutions to carry out inspections; apply sanctions and enforce decisions.

Indicator definition

- (1) **Industrial installations** are facilities intended for use in the manufacture or processing of products involving systematic labor or habitual employment. It consists of a fixed or semi-fixed location of a complete system or a self-contained unit, with its accompanying assemblies, accessories and parts.
- (2) **Environmental inspection** refers to a proactive (planned and routine) process that involves collecting information to make an assessment of a duty holder's current level of compliance, by comparing their activities to the legal requirements and benchmark standards relevant to the activities in question.¹
- (3) **Hotspots** are defined as:²
 - a) **Point sources** on the coast of the Mediterranean Sea which potentially affect human health, ecosystems, biodiversity, sustainability or economy in a significant manner. They are the main points where high levels of pollution loads originating from domestic or industrial sources are being discharged;
 - b) **Coastal areas** where the coastal marine environment is subject to pollution from one or more point or diffused sources on the coast of the Mediterranean which potentially affect human health in a significant manner, ecosystems, biodiversity, sustainability or economy.

¹ Minimum criteria for REACH and CLP Inspections. Forum for Exchange of information on Enforcement, ECHA, March 2011.

² Updated criteria and methodology to assess hotspots and sensitive areas in the Mediterranean. UNEP(DEPI)/MED WG.404/7, December 2014.

Units

The unit for each of the three sub-indicators is a percentage value reported nationally in percent per year.

Policy context and targets

Policy context description

In 1999, the parties to the Barcelona Convention adopted the Strategic Action Programme to Address Pollution from Land-Based Activities (SAP-MED). In order to ensure compliance with the conditions laid down in authorizations and regulations, SAP-MED calls on responsible Authorities to establish systems of monitoring and inspection.

In 2009 and 2012, the Contracting parties to the Barcelona Convention adopted a number of legally binding measures and plans targeting specific industrial pollutants including persistent organic pollutants (POPs), mercury, and BOD from the food sector. The decisions call on Parties to ensure that their competent authorities or appropriate bodies monitor releases of pollutants and contaminants into water, air and soil to verify compliance with the requirements stipulated in these decisions.

The 18th meeting of the Contracting parties to the Barcelona Convention (COP 18), held in Istanbul, Turkey in December 2013, requested the Contracting parties to update the National Action Plans adopted between 2003 to 2005 in the framework of Article 5 of the LBS Protocol of the Barcelona Convention. With the view to support countries in following a harmonized methodology to update the NAPs, the Secretariat developed NAP update Guidelines which were reviewed and endorsed in the meeting of the MEDPOL Focal Points held on 26 to 28 March 2014 (Athens, Greece). The Secretariat was asked to particularly continue work for finalization of the technical annexes of NAP update Guidelines including one annex on updated criteria on hotspots and sensitive areas assessment with the aim to address additional developments and updated legal and technical standards to meet ECAP GES targets and the legally binding commitments under the Regional Plans (Article 15 of the LBS Protocol). The meeting of MED POL Focal Points held on 18 and 19 December 2014 in Barcelona reviewed and endorsed the updated criteria.

Targets

Several regional targets with regard to this indicator are defined in the framework of SAP-MED 1997 and Regional Plans, 2009 and 2012 to be achieved by 2025. The agreed targets may be also reviewed in the framework of UNEP/MAP Ecosystem approach roadmap implementation in synergy with EU Waste Framework Directive. H2020 is also providing for de-pollution of the Mediterranean by 2020.

Methodology

Methodology for indicator calculation

The proposed methodology for calculating this indicator is dependent on the collected data required for computing each of the three sub-indicators:

1. Number of reporting industrial installations:

Required data include:

- Number of records of industries providing data on discharges and emissions released by their industrial processes.
- Total number of industrial installations required to provide data on discharges and emissions released by their industrial processes.

Records of discharges and emissions are typically maintained by environmental agencies or authorities. Information on industrial installations required to provide information discharges and emissions are typically found in their environmental permit.

Sub-indicator is computed by calculating percentage number of reporting industrial installations to the total number required to report on their discharges and emissions in percent per year.

2. *Number of environmental inspections carried out by enforcement authorities:*

Required data include:

- Number of records of environmental inspections carried out by enforcement authorities in which industrial installations were found to be in breach of laws and regulations.
- Total number of executed inspections carried out by enforcement authorities.

Records of environmental inspections including outcomes of these inspections are typically maintained by environmental enforcement authorities.

Sub-indicator is computed by calculating percentage number of inspections in which industrial installations were found to be in breach of laws and regulations to the total number of carried out inspections in percent per year.

3. *Number of eliminated hotspots:*

Required data include:

- Number of eliminated hotspots to date
- Number of hotspots as reported in the updated NAPs of 2015.
- Number of hotspots as reported in 2001.

Records on the status of hotspots are typically maintained by environmental agencies or authorities. Baseline number of hotspots of 2001 and 2015 are found in UNEP/MAP database, countries reports on hotspots, and updated NAPs of 2015.

Sub-indicator is computed by calculating percentage number of eliminated hotspots to the total number of hotspots in 2001 and in 2015 in percent per year.

Geographical coverage

Administrative regions of the whole Mediterranean sea watershed as defined in section 3.1 of the “Updated guidelines to assess national budget of pollutants (NBB)” [UNEP(DEPI)/MED WG. 404/4].

Temporal coverage

Contracting parties report to Barcelona Convention Reporting System (BCRS) for LBS Protocol for inspections under enforcement. The reports are not submitted regularly, but in theory Contracting Parties report to the BCRS on compliance measures (e.g. number of inspections, fines, breaching against legal requirements, etc.).

Basis for aggregation

Aggregation of sub-indicators is not possible. Each sub-indicator is calculated separately.

Trend analysis

This is performed based upon collection of sufficient data required for each sub-indicator; but not earlier than 2020.

Methodology for gap filling

1. *Number of reporting industrial installations:*

Required data can be obtained from records of environmental agencies and authorities. In case such data are missing or incomplete, information may be found in BCRS data base. Alternatively, data may be published in national and international environmental reports.

2. *Number of environmental inspections carried out by enforcement authorities:*

Required data can be obtained from records of environmental agencies and authorities. In case such data are missing or incomplete, information may be found in BCRS data base. Alternatively, data may be published in national and international environmental reports.

3. *Number of eliminated hotspots:*

Required data can be obtained from records of environmental agencies and authorities. In case such data are missing or incomplete, information may be found in UNEP/MAP database, countries reports on hotspots, and updated NAPs of 2015.

Data specifications

Data sets availability

1. *Number of reporting industrial installations:*

Data sets provided by Contracting parties in the framework of the Barcelona Convention Reporting System (BCRS) for LBS Protocol for inspections under enforcement are available for 2008-2009; 2010-2011; 2012-2013 and 2014-2015.

2. *Number of environmental inspections carried out by enforcement authorities:*

Data sets provided by Contracting parties in the framework of the Barcelona Convention Reporting System (BCRS) for LBS Protocol for inspections under enforcement are available for 2008-2009; 2010-2011; 2012-2013 and 2014-2015.

3. *Number of eliminated hotspots:*

Data sets provided in UNEP/MAP database; countries reports on hotspots and updated NAPs of 2015.

Uncertainties

Methodological uncertainties

Methodological uncertainties may be attributed to several aspects dependent on each sub-indicator:

1. *Number of reporting industrial installations:*

Inability to account for all reported discharges and emissions released by industrial installations.

2. *Number of environmental inspections carried out by enforcement authorities:*

Lack of accurate record of number of environmental inspections carried out by environmental enforcement authorities.

3. *Number of eliminated hotspots:*

Inability to account for new hotspots that develop after 2015.