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Support for WES-BCA PCs in the Mediterranean for the
monitoring and reporting programs for marine litter
prevention and mitigation

Regional Assessment Report on Marine Litter Monitoring
and reporting in the Mediterranean Sea

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WATER ENVIRONMENT SUPPORT BIODIVERSITY AND CLIMATE IN THE NEIGHBOURHOOD SOUTH REGION

The regional EU funded “Water Environment Support-Biodiversity and Climate Action (WES-BCA)” project is the continuation of WES project and capitalises on the experience of three more successful predecessor regional EU funded projects SWIM-Horizon2020 SM, SWIM SM and Horizon 2020 CB/MEP. It supports the countries of the Southern Neighbourhood Region in addressing the improvement and protection of the environment, the restoration of biodiversity and the management of scarce water resources, while enhancing the resilience to climate change in the Mediterranean region, strengthening the formulation and enforcement of the relevant policies of the Partner Countries (PCs) and the two regional political frameworks, namely the Union for the Mediterranean (UfM) and the Barcelona Convention. WES-BCA will enhance the capacity of relevant stakeholders in order to support them in formulating and implementing policies in the aforementioned issues, raise awareness, increase knowledge and improve public understanding, stimulating behavioural changes needed for appropriate climate action and environmental protection.

WES-BCA has two components which will run hand-in-hand:

COMPONENT I (Water, Biodiversity and Environment) with the specific objectives:

- to promote an integrated approach to biodiversity protection/restoration and pollution reduction/prevention
- to manage more efficiently scarce water resources in the Southern Neighbourhood

COMPONENT II (Communication and Outreach) with the specific objective:

- to raise awareness and better understanding by the general public (and specific segments of the population) including youth and women are promoted stimulating adoption of appropriate behaviours and attitudes towards improved climate action and effective environmental protection.

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ABBREVIATIONS

ACT4LITTER	Action for Marine Litter in Mediterranean Protected Areas
CAP	Plastic Busters CAP project
CB/MEP	Capacity Building / Mediterranean Environment Programme (Horizon 2020)
CEDRE	Centre de documentation, de recherche et d'expérimentations sur les pollutions accidentelles des eaux
CI	Common Indicator
CI22	Common Indicator 22
CI23	Common Indicator 23
CI24	Common Indicator 24
EcAp	Ecosystem Approach
EO10	Ecological Objective 10
EU	European Union
GES	Good Environmental Status
H2020	Horizon 2020
ICZM	Integrated Coastal Zone Management
IMAP	Integrated Monitoring and Assessment Programme
INFO/RAC	Information and Communication Regional Activity Centre
IMAP Info System	UNEP/MAP reporting and data management platform
LNESP	Laboratoire National des Études et de Surveillance de la Pollution
MED	Mediterranean
MENA	Middle East and North Africa
MSFD	Marine Strategy Framework Directive
QA/QC	Quality Assurance / Quality Control
RE-2-REG	WES regional activity on microplastics
RPML	Regional Plan on Marine Litter Management in the Mediterranean
SM	Support Mechanism
SPA/RAC	Specially Protected Areas / Regional Activity Centre
SUP	Single-Use Plastics
SWIM	Sustainable Water Integrated Management
SWIM-H2020 SM	Sustainable Water Integrated Management and Horizon 2020 Support Mechanism
SWIM-SM	Sustainable Water Integrated Management Support Mechanism
TG-ML	Technical Group on Marine Litter
TouMaLi	Tourism and Marine Litter
UfM	Union for the Mediterranean
UNEP/MAP	United Nations Environment Programme / Mediterranean Action Plan
WES	Water and Environment Support
WES-BCA	Water and Environment Support – Biodiversity and Climate Action

1. EXECUTIVE SUMMARY

This Assessment Report has been prepared under the WES-BCA regional activity on marine litter monitoring and reporting in the Mediterranean. It is intended for decision-makers, practitioners and regional partners, and aims to support more effective implementation and alignment of marine litter monitoring and reporting with the UNEP/MAP Integrated Monitoring and Assessment Programme (IMAP), in particular Ecological Objective 10 (EO10). The report draws on the Background Document, the regional webinar and related assessment work, with a stronger emphasis on reporting systems, data flows, data use and decision-making.

The assessment confirms that significant progress has already been made across the WES-BCA region. Regional policy frameworks, technical guidance, harmonised monitoring methodologies and reporting tools are already in place, and many partner countries have gained practical experience through regional projects, pilot implementation and selected national activities. Among the three marine litter indicators, CI22 (beach and coastline litter) is currently the most developed and operationalised in the region, while CI23 (litter in the water column and on the seafloor) remains more uneven and often dependent on project-based support, specialised capacities and access to vessels, divers or laboratories. CI24 (litter interactions with marine organisms) is still the least developed indicator overall, although regional protocols, data standards and selected implementation experiences now provide a clearer basis for future operationalisation.

A central finding of the assessment is that the region's main challenge is no longer only whether monitoring activities exist, but whether the resulting data are sufficiently harmonised, quality-assured, validated, reported and used for decision-making. In many countries, useful datasets are being generated through projects, pilots or national activities, but the institutional arrangements needed to consolidate, store, analyse and regularly report these data remain uneven. The assessment therefore shows that monitoring capacity is often more advanced than reporting readiness. Marine litter data are also not yet used to their full potential in support of policy development, mitigation planning and priority-setting. In several cases, monitoring produces valuable information on litter quantities, composition, trends and possible sources, but the link between field data, reporting systems and concrete management responses remains weak or fragmented.

The country profiles show considerable variation in the degree of institutionalisation, continuity of monitoring, reporting practice and operational alignment with IMAP. Some countries already have relatively strong experience in repeated CI22 monitoring, and some countries have started reporting or preparing reporting pathways through relevant IMAP mechanisms including the IMAP Info System. In other countries, activities remain largely project-based or limited to pilot actions. Across the region, the most persistent common challenges concern:

- the continuity and sustainability of monitoring beyond project cycles;
- uneven implementation across indicators, especially for CI23 and CI24;
- weak or incomplete QA/QC, metadata and data management arrangements;
- unclear national data flows and reporting responsibilities;
- limited practical use and further operationalisation of the IMAP Info System;
- and insufficient integration of monitoring results into policy, planning and mitigation processes.

The assessment further shows that former regional and sub-regional projects have played a decisive role in advancing marine litter monitoring and reporting in the region. Their strongest contribution has been in support of CI22, while support for CI23 has expanded more gradually and support for CI24 has been especially important in creating the first regional tools and implementation pathways. These projects have generated a valuable legacy of methods, datasets, trained personnel, institutional contacts and practical examples. At the same time, the report underlines that many countries still rely heavily on project cycles, which points to the need to move towards more durable national systems.

Based on these findings, the report recommends that future efforts in the WES-BCA region focus in particular on:

- strengthening institutional coordination and clarifying national roles and responsibilities;
- improving the operational implementation of CI23 and CI24;
- reinforcing QA/QC, metadata completeness and data management;
- defining and strengthening national reporting pathways to the IMAP Info System;
- improving the use of marine litter data for policy development, mitigation planning and priority-setting;
- expanding capacity-building and peer exchange on practical implementation and reporting;
- and making structured use of local actors, NGOs and participatory approaches, where these support implementations and are aligned with harmonised protocols.

Overall, the report concludes that the next phase of support should focus not only on generating more monitoring activity, but on making marine litter monitoring and reporting systems more coherent, institutionalised, report-ready and decision-relevant. In this sense, the Assessment Report is intended not only as a synthesis of the current situation, but also as a practical reference for future regional cooperation, national strengthening efforts and improved implementation of IMAP EO10 in the Mediterranean.

2. BACKGROUND

This report has been prepared under the WES-BCA regional activity “Support for WES-BCA Partner Countries in the Mediterranean for the monitoring and reporting programmes for marine litter prevention and mitigation.” It complements and builds upon the Background Document by incorporating the main findings and recommendations emerging from the webinar, and subsequent exchanges with partner countries and stakeholders.

While the Background Document focused primarily on the technical and institutional basis of marine litter monitoring, the present report places stronger emphasis on how monitoring results are reported, integrated and used for decision-making and action. In this sense, the report is intended not only to assess the current situation, but also to serve as a practical reference for improving the implementation and operationalization of marine litter monitoring and reporting in line with UNEP/MAP IMAP Ecological Objective 10 (EO10), the Regional Plan on Marine Litter Management in the Mediterranean (RPML) and, where relevant, the EU Marine Strategy Framework Directive (MSFD) Descriptor 10.

3. INTRODUCTION

Marine litter is a global environmental problem, and in the Mediterranean, it remains a major pressure on coastal and marine ecosystems. Marine litter—any persistent, manufactured or processed solid material discarded, disposed of or abandoned in the marine and coastal environment (UNEP, 2005), continues to affect the region despite important progress in regional policy frameworks and monitoring efforts (UNEP, 2021).

To achieve Good Environmental Status (GES) of the Mediterranean Sea, the contracting parties to the Barcelona Convention follow a holistic Ecosystem Approach (EcAp). A central pillar of this approach is Ecological Objective 10 (EO10), which specifically focuses on the reduction of marine litter. The legal and strategic framework for this objective is provided by the Regional Plan on Marine Litter Management in the Mediterranean (RPML). It mandates countries to implement concrete measures, ranging from waste prevention at the source to coastal clean-up operations. To evaluate the effectiveness of these measures, the Integrated Monitoring and Assessment Programme (IMAP) was established. Within IMAP, Marine Litter Ecological Objective 10 (EO10) is primarily addressed through agreed common indicators:

- Common Indicator 22 (trends in the amount of litter washed ashore and/or deposited on coastlines—i.e., beach/coastline macro-litter, including composition)
- Common Indicator 23 (trends in the amount of litter in the water column—including microplastics—and on the seafloor)
- Common Indicator 24 (trends in the amount of litter ingested by or entangling marine organisms focusing on selected mammals, marine birds, and marine turtles)

4. METHODOLOGY AND SOURCES OF INFORMATION

This Assessment Report is based on a combination of complementary sources.

- Parts of the Background Document, which provided the baseline desk-based review of marine litter monitoring and related initiatives in the WES-BCA partner countries.
- The presentations, discussions and recommendations of the regional webinar.

Structured questionnaires tailored to different actors (policy/reporting leads, CI22 monitoring implementers, CI23/CI24 field and laboratory teams, and data managers / data managers / IMAP Info System users) were circulated before and after the webinar. However, the number of responses received was too limited to support a systematic comparative analysis across countries and indicators. Questionnaire inputs were therefore not used as a standalone analytical source for this Assessment Report, but only as supplementary background input to the broader assessment process.

The methodology therefore combines desk review, stakeholder consultation and regional exchange. At the same time, some limitations should be noted, including differences in the level of available information across countries, uneven coverage of indicators and reporting systems, and variable levels of detail regarding institutional data flows and national reporting arrangements.

5. REGIONAL OVERVIEW: MONITORING, REPORTING, AND USE OF MARINE LITTER DATA

Marine litter remains a major pressure on Mediterranean coastal and marine ecosystems and continues to affect biodiversity, coastal landscapes, fisheries, tourism and the broader blue economy (Hanke et al., 2025; UNEP, 2023). In recent years, important progress has been made in the Mediterranean region through the development of regional policy and technical frameworks, in particular under the UNEP/MAP Ecosystem Approach, Ecological Objective 10 (EO10), the Integrated Monitoring and Assessment Programme (IMAP), and the Regional Plan on Marine Litter Management in the Mediterranean. In parallel, a wide range of regional and national initiatives have contributed to strengthening monitoring capacity, testing methodologies, generating baseline data and promoting coordination among institutions and stakeholders (Table 1).

Across the WES-BCA partner countries, marine litter monitoring is currently at different stages of development depending on the environmental matrix (Table 2), the level of institutionalization, and the availability of technical and financial resources.

- In general, **beach and coastline litter monitoring (CI22)** is the most developed component. In several countries, regular or semi-regular beach litter surveys have already been carried out through national programs, regional projects, pilot actions or combinations of these.
- By contrast, **litter in the water column and on the seafloor (CI23)**, including floating litter and microplastics, remains less consistently implemented and is often more dependent on project-based support, access to vessels, diving teams, laboratory capacity and specialised expertise.
- Litter interactions with **marine organisms (CI24)** are the least developed area overall, although regional tools, protocols and selected country experiences already provide an important basis for future operationalisation.

TABLE 1 : FORMER REGIONAL AND SUB-REGIONAL PROJECTS RELEVANT TO IMAP EO10 MARINE LITTER INDICATORS IN WES-BCA PARTNER COUNTRIES

<i>Project / Initiative</i>	<i>Period</i>	<i>CI22</i>	<i>CI23</i>	<i>CI24</i>	<i>WES-BCA countries directly involved</i>
<i>H2020 CB/MEP</i>	2009–2014	Yes	Yes	Yes	DZ, EG, IS, JO, LB, MO, PS, TN
<i>CLAIM H2020</i>	2017–2023	Yes	No	No	Greece and 10 partners from EU and TN and LB
<i>SWIM-SM</i>	2010–2015	Yes	Yes	Yes	DZ, EG, JO, LB, MO, PS, TN
<i>SWIM-H2020 SM</i>	2016–2019	Yes	Yes	Yes	DZ, EG, IS, MO, JO, LB, TN, PS ¹
<i>Marine Litter MED I</i>	2016–2019	Yes	Yes	Yes	DZ, EG, IS, LB, MO, TN
<i>Plastic Busters MPAs</i>	2016–2022	Yes	Yes	Yes	Mainly northern Mediterranean; methodological reference
<i>INDICI I & II</i>	2017–2021	No	No	Yes	FR, GR, SP, IT, PO, TN, TU
<i>ACT4LITTER</i>	2017–2019	Yes	No	No	Mainly northern Mediterranean Marine Protected Areas; methodological reference
<i>WES (Water and Environment Support)</i>	2019–2024	Yes	Yes	No	DZ, EG, IS, JO, LB, MO, PS, TN ²³
<i>COMMON</i>	2019–2023	Yes	Yes	Yes	IT, TN, LB
<i>Marine Litter MED II</i>	2020–2023	Yes	Yes	Yes	DZ, EG, IS, LB, MO, TN
<i>EcAp MED III</i>	2020–2023	Yes	Yes	Yes	DZ, EG, IS, LB, LB, MO, TU
<i>Plastic Busters CAP</i>	2021–2023	Yes	Yes	Yes	EG, JO, LB, TU
<i>TouMaLi (Tourism & Marine Litter)</i>	2021–2026	Yes	No	No	EG, MO, TN
<i>Marine Litter MED PLUS</i>	2024–2027	Yes	Yes	Yes	DZ, EG, IS, LB, MO, TN

Note: “Yes” indicates that the project was relevant to, or provided support for, the respective IMAP EO10 indicator at project level. It does not necessarily mean that the indicator was fully implemented or routinely reported in each listed country.

¹ SWIM-H2020 SM: Supported marine litter monitoring and assessment in Algeria, Egypt and Morocco through training, technical assistance and beach litter surveys, strengthening national capacities, inter-institutional cooperation and alignment with the Barcelona Convention and the Mediterranean Regional Plan on Marine Litter Management. Activities supported the development of national management plans and measures, regional knowledge exchange and synergies with Marine Litter-MED, ACT4LITTER and Plastic Busters.

² WES: Built on this legacy through enhanced monitoring of floating and seafloor macrolitter in Algeria and Morocco, including professional training, pilot surveys with local divers, and assessment of litter quantities, composition and sources. Monitoring results were translated into targeted mitigation measures and marine litter action plans through stakeholder workshops. Complementary actions included multilingual video guidelines on seafloor litter monitoring, regional microplastics webinars, and training on SUP-free coastal areas and participatory science in protected areas.

³ WES-BCA Regional: Webinars on microplastics for enhanced technical understanding and strategy development.

TABLE 2 : STATUS OF NATIONAL MARINE LITTER MONITORING PROGRAMMES IN WES-BCA PARTNER COUNTRIES.

Country	CI22	CI23	CI24	Short note
<i>Algeria</i>	Project-/pilot-based	Pilot-based	Limited / emerging	CI22 and CI23 supported through regional projects; CI24 is emerging through Marine Litter MED PLUS support.
<i>Egypt</i>	Project-/pilot-based	Limited / pilot-based	Limited / emerging	CI22 supported through TouMaLi and other activities; formal EO10 reporting engagement exists, but continuity and module-level detail remain unclear.
<i>Israel</i>	Ongoing national programme	Partial / reported	Reported / emerging	Long-running beach monitoring and IMAP uploads across several marine litter modules; internal data-flow arrangements would benefit from further clarification.
<i>Jordan</i>	Outside formal IMAP reporting	Outside formal IMAP reporting	Outside formal IMAP reporting	Not a Contracting Party to the Barcelona Convention; activities mainly through regional projects, training and plastic-reduction work.
<i>Lebanon</i>	Project-/campaign-based	Limited / reported elements	Limited / emerging	Some formal EO10 reporting engagement and CI24-related experience, but continuity and module coverage remain unclear.
<i>Morocco</i>	Ongoing national programme	Pilot-/project-based with reported data	Limited / pilot-based	CI22 is supported by the national beach surveillance programme; CI23 has project-supported implementation and IMAP reporting; CI24 remains mainly pilot-based.
<i>Palestine</i>	Outside formal IMAP reporting	Outside formal IMAP reporting	Outside formal IMAP reporting	Not a Contracting Party to the Barcelona Convention; activities mainly concern plastic-waste management, SUP reduction and awareness-related actions.
<i>Tunisia</i>	Partial / recurring	Pilot-/project-based with reported data	Limited / emerging	CI22 has recurring activities; CI23 and CI24 remain more project-based, with some formal EO10 reporting engagement.

Note: This classification is based on available desk review and webinar information.

The assessment shows that, in many cases, the region's main challenge is no longer only whether monitoring activities exist, but whether these activities are sufficiently structured, harmonised, quality-assured, reported and used for decision-making. A recurrent pattern emerging from the available evidence across the WES-BCA region is that monitoring capacity is often more advanced than reporting readiness. Useful data are being generated through projects, pilots and national initiatives, but the institutional arrangements needed to validate, consolidate, analyse and report these data in a regular and comparable way remain uneven. This is particularly visible in relation to reporting to the IMAP Info System, where the availability of data does not always translate into systematic uploads, complete metadata, consistent quality assurance or routine use for regional assessment.

The webinar discussions also highlighted that marine litter data are not yet used to their full potential in support of policy development, mitigation planning and priority-setting. In several cases, monitoring activities generate valuable information on litter quantities, composition, trends and possible sources, but the link between field data, reporting systems and concrete management responses remains weak or fragmented. Taken together, the available evidence indicates that strengthening this connection is

essential if marine litter monitoring is to move beyond data collection and contribute more directly to policy evaluation, targeted interventions and long-term implementation of national and regional action.

At the same time, the assessment indicates that the regional picture does not show an institutional shortage. On the contrary, the Mediterranean already benefits from a strong architecture of policy frameworks, technical guidance, reporting tools and cooperation platforms. In addition to UNEP/MAP and INFO/RAC, regional initiatives supported by actors such as the Union for the Mediterranean (UfM) and the European Union have helped develop harmonised methods, pilot innovative approaches, build capacity and facilitate exchange of experience across countries. These efforts demonstrate that the region has already generated a considerable body of knowledge, tools and practice. In this context, the next step appears to be less about designing new frameworks and more about making existing monitoring and reporting systems work more effectively in practice. This involves establishing clearer institutional roles, strengthening data flows, improving reporting routines, and integrating results more effectively into decision-making processes.

A further important point emerging from the regional assessment is that marine litter monitoring should increasingly be seen as a comprehensive system across multiple environmental matrices, rather than as a set of isolated activities. Beach litter, floating litter, seafloor litter and litter interactions with biota each provide different but complementary insights. The webinar presentations further showed that monitoring can be implemented through a range of organisational models, including centralised national systems, decentralised networks of local operators, project-based pilots, and participatory or community-based approaches. When supported by harmonised protocols, standard metadata and adequate quality assurance, all of these approaches can contribute to generating fit-for-purpose data. This diversity can be a strength, as it allows monitoring systems to be adapted to different national contexts, institutional structures and capacities. To be effective at regional level, however, all approaches need to feed into coherent reporting pathways, harmonised data structures and comparable regional assessments, including through the IMAP Info System, so that high-quality, standardised data can contribute effectively to the Mediterranean Quality Status Report.

Overall, the regional overview shows that significant progress has already been made in WES-BCA partner countries, particularly in terms of awareness, technical guidance, pilot experience and the establishment of regional frameworks. However, major gaps remain in the continuity of monitoring, the regularity and completeness of reporting, the use of data for policy and planning, and the operational link between technical work and institutional decision-making. These issues are cross-cutting and recur, with different intensity, across countries and indicators. The following chapters therefore move from this regional picture to a more detailed country-level overview, followed by a synthesis of the main findings, gaps and recommendations emerging from the assessment process.

6. COUNTRY PROFILES

This chapter provides short country profiles for the eight WES-BCA partner countries. Each profile summarises the institutional setting for marine litter monitoring and reporting, the current status of implementation of CI22, CI23 and CI24, the main reporting arrangements and data flows, the degree of alignment with IMAP and related regional frameworks, and the main gaps and needs identified through the assessment. The profiles build on the baseline information compiled in the Background Document and are complemented, where possible, with relevant insights emerging from the webinar and related exchanges. Their purpose is not to provide exhaustive national descriptions, but to present a concise and comparable overview of how marine litter monitoring and reporting currently function in practice across the WES-BCA region. The country profiles should therefore be understood as an evidence-based synthesis of available information rather than as formally validated national status assessments.

6.1 ALGERIA

Institutional setting

Algeria has engaged with marine litter monitoring and reporting mainly through a combination of national authorities, technical institutions and externally supported regional initiatives. The country has participated in a series of capacity-building, pilot and implementation-oriented projects under the UNEP/IMAP framework and related EU-supported initiatives, including H2020 CB/MEP, SWIM-H2020 SM, WES, Marine Litter MED I, Marine Litter MED II, Marine Litter MED PLUS and EcAp MED III. These activities indicate that Algeria has progressively built institutional and technical foundations for marine litter monitoring in line with IMAP and the Regional Plan on Marine Litter Management, although a fully institutionalised long-term national monitoring and reporting system across all indicators is still under development.

Monitoring status (CI22 / CI23 / CI24)

Among the three marine litter indicators, CI22 (beach and coastline litter) appears to be the most developed in Algeria. Under SWIM-H2020 SM (2016–2019), Algeria carried out systematic beach litter surveys and received training on standardised survey protocols, thereby laying important groundwork for IMAP-aligned implementation. The webinar findings further showed that Algeria carried out 111 beach litter surveys, described as the largest sampling effort of this type in the country, using the Joint List and generating harmonised data that could be used at both Mediterranean and EU level.

CI23 (litter in the water column and on the seafloor) appears less advanced but is no longer absent. Under WES (2019–2023), Algeria implemented national activities combining workshops and practitioner training on beach, sea-surface and seafloor litter monitoring to generate data relevant for IMAP EO10 implementation. The webinar also highlighted that Algeria was included in participatory-science and pilot experiences on seafloor litter, where scuba- and snorkelling-based surveys were considered feasible and relatively low in resource intensity compared with beach litter surveys. Available evidence also indicates that research on floating and seafloor macrolitter in Algeria remains limited, underlining the need to continue strengthening fit-for-purpose data generation and to scale up pilot prevention and mitigation measures beyond the initial project framework.

CI24 (litter interactions with marine organisms) remains at an earlier stage of development. Algeria was not highlighted in the Background Document as having an operational national CI24 monitoring programme, but it is included as a focus country under Marine Litter MED PLUS (2024–2027), which explicitly supports EO10 implementation and upgrades of indicators including CI24. The webinar findings from SPA/RAC are particularly relevant here, as they indicate that under Marine Litter MED PLUS, focus is being given to Egypt, Algeria and Libya for national implementation of the sea turtle interaction protocol and associated data standards and dictionaries for CI24. This suggests that Algeria has a concrete entry point for future CI24 operationalisation, even if implementation is still emerging.

Reporting arrangements and data flows

Available evidence suggests that Algeria has generated useful marine litter data through projects and trainings, but that the institutional arrangements needed for regular, validated and comparable reporting remain less clear. The Background Document notes that the CI22 dataset produced under SWIM-H2020 SM was submitted to MED POL, showing that some monitoring results have been transferred into regional processes. However, the same document also notes that, in the 20 April 2025 INFO/RAC overview, Algeria was not listed among the Contracting Parties that had uploaded EO10 marine litter datasets to the IMAP Info System. Taken together, this suggests that Algeria has made significant progress in data generation and preparatory work, but that routine reporting through the formal IMAP data pathway remains incomplete or not yet fully operational.

Alignment with IMAP and relevant regional frameworks

Algeria's marine litter work is clearly aligned in principle with IMAP EO10 and the Regional Plan on Marine Litter Management, as shown by its participation in MED POL-supported activities, its involvement in multiple EO10-related projects, and the use of harmonised protocols such as the Joint List for beach litter monitoring. Participation in EcAp MED III also suggests wider engagement with IMAP implementation and harmonised regional assessment approaches. At the same time, alignment at the level of field methods and project participation appears stronger than alignment at the level of routine reporting to the IMAP Info System.

Main gaps and needs

Overall, Algeria appears to have a relatively solid foundation for further progress, especially for CI22, and a growing basis for CI23 and CI24 through project-supported work. The main gaps seem to lie in the continuity of monitoring beyond project cycles, the institutionalisation of regular reporting workflows, and the transition from pilot and training activities to a more stable national monitoring-and-reporting system. Priority needs therefore likely include:

- stronger institutional coordination for marine litter data management and reporting;
- clearer national data flows from survey implementation to validation and submission;
- continued support for routine CI23 monitoring beyond pilot actions;
- operationalisation of CI24 using the regional tools and protocols already available;
- and stronger use of existing data in formal IMAP reporting and national decision-making.

Available evidence also indicates that research on floating and seafloor macrolitter in Algeria remains limited, underlining the need to continue strengthening fit-for-purpose data generation and to scale up pilot prevention and mitigation measures beyond the initial project framework.

6.2 EGYPT

Institutional setting

Egypt has engaged with marine litter monitoring and reporting through a combination of national authorities, project-based technical support and regional implementation initiatives. The country has been involved in a wide range of relevant projects, including H2020 CB/MEP, SWIM-H2020 SM, WES, Marine Litter MED, Marine Litter MED II, Marine Litter MED PLUS, Plastic Busters CAP and EcAp MED III. Taken together, these initiatives suggest that Egypt has developed a relatively broad institutional and technical basis for marine litter work, with particular attention to beach litter monitoring and increasing engagement with IMAP-related reporting processes.

Monitoring status (CI22 / CI23 / CI24)

Among the three marine litter indicators, CI22 (beach and coastline litter) appears to be the most developed in Egypt. Under SWIM-H2020 SM (2016–2019), Egypt implemented marine litter activities along the Egyptian Mediterranean coastline, including pilot beach-litter surveys, capacity-building on survey methodologies, and analysis of management options in synergy with Marine Litter MED. The WES project (2019–2024) further built on these results through additional technical assistance and training on marine litter and plastics, including macrolitter surveys.

The webinar findings provide further detail on the practical implementation of CI22 in Egypt through the TouMaLi project, where 10 beaches were monitored and volunteers were trained to carry out standardised beach litter surveys. The presentation also noted that meso-litter was included using a TG-ML-recommended method, and that all collected litter was analysed using the Joint List to ensure comparability. This suggests that Egypt has not only project experience in beach litter monitoring, but also practical experience in applying harmonised methods in a coastal urban context.

CI23 (litter in the water column and on the seafloor) appears less advanced but is beginning to develop through regional support. The Background Document notes that Marine Litter MED II and Marine Litter MED PLUS explicitly support progress on EO10, including floating microplastics and selected IMAP-based monitoring such as beach litter and floating microplastics. Egypt therefore already has a basis for progress on CI23, but available evidence still suggests that implementation remains more project-based and less institutionalised than CI22.

CI24 (litter interactions with marine organisms) remains at an earlier stage of operationalisation. However, Egypt is part of ongoing regional work to strengthen and operationalise sea-turtle ingestion/entanglement monitoring capacity, especially under Marine Litter MED PLUS. Webinar inputs from SPA/RAC confirmed that Egypt is one of the focus countries for national implementation of the CI24 protocol and associated data standards and dictionaries. This indicates that Egypt has a concrete entry point for future CI24 implementation, even if it is not yet described as a fully routine national monitoring component.

Reporting arrangements and data flows

Compared with several other WES-BCA partner countries, Egypt appears to have a more visible reporting link to the regional system. The Background Document notes that, in the 2025 INFO/RAC reporting overview, Egypt is listed among the Contracting Parties that had uploaded EO10 marine litter datasets to the IMAP Info System, indicating that at least some formal EO10 reporting engagement is

already in place. However, module-level detail and the continuity of reporting cannot be fully assessed from the available snapshot.

The webinar findings add useful practical detail on Egypt's national data-flow arrangements in the TouMaLi case. According to the presentation, field data from each survey are first sent to a national coordinator for quality control, then reported to the Ministry of Environment, which reviews the information and sends feedback and recommendations to the relevant local authority. This is a particularly valuable example for the Assessment Report because it illustrates not only monitoring implementation, but also a basic chain of data collection → QA/QC → ministry review → local action.

Alignment with IMAP and relevant regional frameworks

Egypt's marine litter work appears well aligned in principle with IMAP EO10 and the Regional Plan on Marine Litter Management, as shown by its participation in a series of UNEP/MAP- and EU-supported initiatives, its inclusion in EcAp MED III, and its listing in the 2025 INFO/RAC reporting overview. The country has also participated in Plastic Busters CAP, which explicitly covered the "whole management cycle" from monitoring and surveillance to prevention and mitigation, further supporting the integration of marine litter work into a broader management framework. Overall, Egypt appears relatively advanced compared with several other partner countries in combining monitoring experience, reporting engagement and regional project support, although institutionalisation across all indicators still appears uneven.

Main gaps and needs

Egypt appears to have a relatively strong foundation for further progress, especially for CI22, and an increasingly visible basis for reporting and future CI24 operationalisation. At the same time, important gaps remain. Monitoring activities still seem to depend substantially on projects and externally supported initiatives, especially outside beach litter. CI23 appears less consolidated, and CI24 is still emerging as a more operational component. Priority needs therefore likely include:

- further institutionalisation of regular monitoring beyond project cycles;
- stronger continuity and expansion of CI22 monitoring in a consistent national framework;
- greater operationalisation of CI23, including floating microplastics and, where possible, seafloor litter;
- continued strengthening of CI24 implementation using the regional tools already available;
- and clearer, more routine reporting pathways into the IMAP Info System, supported by stable national coordination and quality assurance arrangements.

6.3 ISRAEL

Institutional setting

Among the WES-BCA partner countries, Israel appears to have one of the more developed and institutionalised marine litter monitoring systems among the WES-BCA partner countries, based on available information. CI22 is the strongest component, while CI23 and CI24 appear to have reported or operational elements, although the underlying national arrangements are not fully described in the available material. The Israel Oceanographic and Limnological Research Institute (IOLR) has a long-

standing history of publicly documenting national environmental monitoring and has included a dedicated 'Marine Litter' chapter in its monitoring reports since 2019. This indicates that marine litter is embedded in national monitoring practice, rather than being addressed only through short-term projects. In parallel, Israel has participated in several regional initiatives relevant to EO10, including SWIM-H2020 SM, Marine Litter MED, Marine Litter MED II, Marine Litter MED PLUS and EcAp MED III.

Monitoring status (CI22 / CI23 / CI24)

Israel appears comparatively advanced across the three marine litter indicators. For CI22, the Background Document notes that under Marine Litter MED (2016–2019), Israel was one of the countries implementing seasonal “Adopt-a-Beach” pilots explicitly intended to support national beach litter surveying programmes and the finalisation of national monitoring for IMAP CI22. Combined with the evidence of long-running national marine litter chapters in IOLR monitoring reports, this suggests that beach litter monitoring is not only established but also institutionally anchored.

For CI23, Israel also appears to have a relatively stronger basis than many other partner countries. Participation in Marine Litter MED II, Marine Litter MED PLUS and EcAp MED III indicate engagement with broader EO10 monitoring and assessment, including floating microplastics and other selected IMAP-based monitoring activities. Although the Background Document does not provide detailed module-by-module methodological information for Israel, the combination of national monitoring reports and regional project participation suggests that implementation is more mature than in countries where monitoring remains largely pilot-based.

For CI24, Israel stands out because the Background Document explicitly states that in the 2025 INFO/RAC IMAP reporting overview, Israel appears with uploaded datasets not only for CI22/CI23, but also for the sea-turtle-related module used for CI24 reporting. This indicates progress in CI24-related reporting uptake, and suggests that Israel already has some operational capacity in this area, even if the underlying national arrangements are not described in detail in the document.

Reporting arrangements and data flows

Israel appears to be among the more advanced WES-BCA partner countries in terms of reporting. The Background Document explicitly notes that Israel appears in the INFO/RAC 2025 IMAP reporting overview with uploaded datasets across multiple marine litter modules, including the turtle-related module relevant for CI24. This is particularly significant because it suggests that some monitoring activities are linked to a reporting pathway into the IMAP Info System, rather than remaining confined to projects or standalone reports. At the same time, the document does not provide a detailed description of the national data-flow chain from field collection to final upload, so the internal organisation of reporting would still merit clarification in follow-up discussions.

Alignment with IMAP and relevant regional frameworks

Israel appears well aligned with IMAP EO10 and related regional frameworks. Its participation in Marine Litter MED, Marine Litter MED II, Marine Litter MED PLUS and EcAp MED III, together with the existence of a public institutional monitoring record and uploaded EO10 datasets in the IMAP Info System, suggests relatively strong engagement with both the methodological and reporting dimensions of IMAP. In this respect, Israel seems to be one of the better positioned countries in the WES-BCA region for combining national monitoring, project support and formal reporting uptake.

Main gaps and needs

Compared with several other partner countries, Israel appears to have a stronger basis for EO10 implementation and reporting. The main gaps visible from the currently available material are therefore less about the basic existence of monitoring and more about the need to clarify the internal national organisation of data flows, institutional roles and indicator-specific operational arrangements, especially if lessons are to be transferred to other countries in the region. Priority needs therefore likely include:

- clearer documentation of national data flows from monitoring to reporting;
- greater transparency on institutional roles and responsibilities across CI22, CI23 and CI24;
- further clarification of the operational arrangements underlying CI24-related reporting;
- continued use of national experience to support peer learning and regional exchange;
- and stronger communication of transferable good practices relevant for other WES-BCA partner countries.

6.4 JORDAN

Institutional setting

Jordan's engagement with marine litter monitoring and reporting has taken place mainly through regional projects, exchange of experience and capacity-building, rather than through formal implementation under the Barcelona Convention system. The Background Document notes that Jordan participated in Plastic Busters CAP (2021–2023), where activities aimed to strengthen Integrated Coastal Zone Management (ICZM), provide training on marine litter monitoring, assessment and mitigation, organise an e-course, conduct four pilot monitoring and assessment campaigns, and contribute to a coastal cities network for a litter-free Mediterranean. Jordanian representatives also joined regional marine litter capacity-building under H2020 CB/MEP.

Monitoring status (CI22 / CI23 / CI24)

Available evidence suggests that Jordan's monitoring status remains limited and largely project-based. The activities described under Plastic Busters CAP clearly relate to marine litter monitoring and assessment, but the Background Document does not indicate the existence of a regular national Mediterranean monitoring programme for CI22, CI23 or CI24. Rather, Jordan seems to have benefited mainly from training, pilot campaigns and exposure to regional good practice. This suggests that the country has some foundation for future implementation, but not yet a stable or institutionalised EO10 monitoring system.

Reporting arrangements and data flows

Jordan is not a Contracting Party to the Barcelona Convention, and therefore it does not have formal IMAP reporting obligations under the Convention framework. The Background Document explicitly notes that Jordan does not appear in the INFO/RAC list of Contracting Parties uploading EO10 datasets to the IMAP Info System. As a result, while Jordan may have gained technical experience and participated in regional activities, these efforts do not currently translate into formal EO10 reporting through the IMAP system.

Alignment with IMAP and relevant regional frameworks

Jordan's marine litter work is linked to the regional agenda mainly through exchange of best practices and capacity-building, rather than through direct implementation of IMAP obligations. In practical terms, this means that Jordan can still benefit from IMAP-related methodologies, training and regional cooperation, but its relationship to IMAP is different from that of Barcelona Convention Contracting Parties. The country's experience is therefore more relevant as a case of capacity-building and preparedness, rather than one of formal reporting alignment. Although Jordan is not part of the formal IMAP marine litter reporting system, recent WES support produced a baseline assessment of selected SUPs, a report on alternatives, and a public-private roadmap with a 3–5 year timeline, assigned roles and responsibilities, and a strong focus on implementation and enforcement. This is relevant to the present assessment because it shows that Jordan is addressing plastic leakage through upstream policy and planning measures, even in the absence of formal EO10 monitoring and reporting obligations.

Main gaps and needs

Jordan's main gaps appear to lie in the absence of a formal Mediterranean monitoring-and-reporting framework linked to EO10. Priority needs therefore likely include:

- continued access to regional training and technical support;
- practical guidance for translating pilot experience into more regular monitoring activity where relevant;
- stronger links between marine litter monitoring, plastic reduction measures and local coastal management;
- and continued participation in regional exchange processes so that Jordan can benefit from evolving IMAP-related practice even outside the formal reporting system.

6.5 LEBANON

Institutional setting

Lebanon has been involved in several important regional marine litter initiatives and appears to have a more structured basis for EO10 implementation than some other WES-BCA partner countries. The country was a country of implementation under Marine Litter MED (2016–2019) and is also identified as a focus country in Marine Litter MED II and Marine Litter MED PLUS. It has also participated in SWIM-H2020 SM, H2020 CB/MEP, Plastic Busters CAP, WES, and EcAp MED III. This combination suggests that Lebanon has benefited from both project-based practical activities and broader regional support for IMAP implementation and IMAP Info System strengthening.

Monitoring status (CI22 / CI23 / CI24)

For CI22, the Background Document provides particularly clear evidence: under Marine Litter MED, Lebanon implemented seasonal "Adopt-a-Beach" pilots explicitly supporting beach litter surveying and the national monitoring programme for IMAP CI22. This indicates that beach litter monitoring is the strongest component of Lebanon's EO10 work and has already been linked to a national monitoring logic.

For CI23, Lebanon appears to have some basis for implementation through its participation in Marine Litter MED II, Marine Litter MED PLUS, Plastic Busters CAP and regional training activities. These initiatives included selected IMAP-based monitoring such as beach litter and floating microplastics, as

well as hands-on training and pilot campaigns. However, the currently available material does not suggest that CI23 is yet as consolidated as CI22.

For CI24, Lebanon appears to be relatively well positioned compared with some other partner countries. Webinar findings from SPA/RAC note that under Marine Litter MED II, Lebanon, Tunisia and Morocco were among the countries that used the sea turtle protocol and strategy developed under Marine Litter MED I. This indicates that Lebanon has already gained at least some operational experience with CI24-related implementation, even if the degree of routine national integration remains unclear.

Reporting arrangements and data flows

Lebanon is listed in the 2025 INFO/RAC overview among the Contracting Parties that uploaded EO10 datasets to the IMAP Info System, indicating that some formal reporting pathway is in place. At the same time, the Background Document does not specify which modules were uploaded or how stable and regular the underlying reporting workflows are. It is therefore reasonable to conclude that Lebanon has moved beyond purely project-based data generation and has at least some reporting uptake, but that the maturity and continuity of this system would benefit from further clarification.

Alignment with IMAP and relevant regional frameworks

Lebanon's participation in Marine Litter MED, Marine Litter MED II, Marine Litter MED PLUS, Plastic Busters CAP, WES and EcAp MED III, together with its listing in the INFO/RAC reporting overview, suggests a relatively good degree of alignment with IMAP EO10 in principle. The country appears to have been able to connect regional project support with at least some formal reporting practice, which places it in a stronger position than countries where experience remains limited to pilots or awareness-oriented activities. In parallel to monitoring-related initiatives, WES support in Lebanon also addressed upstream plastic leakage through a baseline on selected SUP items, a roadmap to address SUPs, and preparation of a draft voluntary agreement with the restaurant sector. While this does not directly strengthen EO10 monitoring, it provides relevant policy context for the prevention dimension of marine litter management.

Main gaps and needs

Lebanon appears to have a good basis for further development, especially in CI22 and in the transition from regional project support to more stable IMAP-compatible practice. Remaining gaps likely concern:

- stronger continuity of monitoring beyond project cycles;
- further consolidation of CI23 implementation;
- better integration of CI24 work into routine national systems;
- and clearer institutional roles and data flows to ensure that reporting to the IMAP Info System becomes more regular, complete and sustainable.

6.6 MOROCCO

Institutional setting

Morocco appears to be one of the strongest and most operationally advanced country cases in the WES-BCA region. The Background Document notes that Morocco was a country of implementation under Marine Litter MED (2016–2019), a focus country under Marine Litter MED II (2020–2023) and Marine Litter MED PLUS (2024–2027), and also participated in SWIM-H2020 SM, WES, H2020 CB/MEP and EcAp MED III. In addition, Morocco operates the long-running Programme National de Surveillance de la Qualité des Eaux de Baignade et du Sable des Plages du Royaume, which includes a beach litter component based on UNEP/MAP protocols.

Monitoring status (CI22 / CI23 / CI24)

For CI22, Morocco appears particularly well advanced. The Background Document notes that the national beach surveillance programme has, since 2020, covered around 60 beaches with two litter-typology campaigns per year, generating a national dataset on beach macro-litter composition and trends. In addition, under Marine Litter MED, Morocco implemented seasonal “Adopt-a-Beach” pilots that supported IMAP CI22 monitoring programme development. Webinar findings reinforced this picture by noting that marine litter monitoring is implemented on 46 beaches, with NGOs and authorities working together to generate reliable data.

For CI23, Morocco also appears more advanced than many partner countries. Under SWIM-H2020 SM, Morocco carried out pilot marine litter monitoring and assessment using standardised IMAP methods and seasonal surveys, aimed at characterising macro-litter and informing management options. The WES project subsequently launched a national activity on marine litter assessment, including beach and at-sea surveys, training and peer exchange, while Marine Litter MED PLUS explicitly advances selected IMAP-based monitoring such as floating microplastics. Webinar findings also show pilot work on river inputs, Fishing-for-Litter, and improved management in ports and marinas, indicating a broader multi-compartment approach to CI23-related work.

Recent WES support in Morocco explicitly aimed to generate fit-for-purpose data for IMAP CI23 through pilot surveys of floating litter and seafloor litter in the bays of Tamuda, M’diq and Martil, while also identifying practical management options. This is important because it shows that the Moroccan activity was designed not as an isolated pilot, but as part of a broader effort to collect scientifically valid data in line with the Barcelona Convention and to translate the results into targeted responses, including measures related to fishing gear management, Fishing-for-Litter, fisher training and awareness-raising.

For CI24, Morocco has also moved beyond purely conceptual preparation. The Background Document notes that Marine Litter MED PLUS supports upgrades to EO10 indicators including CI24, and webinar findings showed that under Marine Litter MED II and related national activities, Morocco worked on the development of a monitoring strategy and a case study on litter ingestion by turtles in the Fnideq–M’diq area. SPA/RAC webinar findings also indicate that Morocco was among the countries already using the sea turtle protocol and strategy under Marine Litter MED II. This makes Morocco one of the few WES-BCA partner countries with visible experience across all three indicators.

Reporting arrangements and data flows

Morocco also appears comparatively advanced in formal reporting. The Background Document notes that in the INFO/RAC 2025 IMAP reporting snapshot, Morocco appears with uploaded datasets for the core marine litter monitoring modules corresponding to CI22 and CI23 (including beach litter, seafloor litter and floating microplastics), although no sea-turtle data are shown for CI24. This suggests that Morocco has already developed a relatively functional pathway from monitoring to IMAP reporting for the first two indicators. In addition, the Moroccan webinar presentation highlighted institutional coordination through the Department of Sustainable Development / LNEP, practical collaboration with local stakeholders, and the use of data to guide public policies and intervention priorities, suggesting that data use may be more developed here than in several other countries.

Alignment with IMAP and relevant regional frameworks

Morocco appears strongly aligned with IMAP EO10 and the Regional Plan on Marine Litter Management in both methodological and operational terms. It has participated in a wide range of regional projects, applied UNEP/IMP-related methods in beach litter monitoring, uploads EO10 data to the IMAP Info System, and has developed practical pilots linking monitoring to mitigation and stakeholder engagement. It therefore stands out as one of the clearest examples in the region of how marine litter monitoring can be linked to institutional coordination, reporting and policy relevance.

Main gaps and needs

Despite this strong position, some gaps remain. The main area still requiring attention is CI24 reporting, since the available IMAP reporting snapshot does not yet show uploaded sea-turtle data despite the existence of pilot work and strategy development. More broadly, Morocco's experience suggests that further progress could focus on:

- consolidating reporting continuity across all relevant modules;
- strengthening the integration of riverine, port and Fishing-for-Litter data with broader EO10 assessments;
- moving further from successful pilots toward stable, fully institutionalised national systems across all indicators;
- continuing to use Morocco's experience as a source of good practice for peer exchange in the WES-BCA region, particularly on the integration of riverine inputs, port-related measures and fishing-related litter management into a coherent monitoring and mitigation framework.

6.7 PALESTINE

Institutional setting

Palestine's participation in marine litter work is framed primarily through capacity-building, plastic-waste management support and citizen-based activities, rather than through formal implementation of IMAP obligations. The Background Document notes that Palestine is not a Contracting Party to the Barcelona Convention, and that its engagement in IMAP-related processes is therefore mainly through exchange of experience and regional cooperation rather than through formal reporting requirements. Under WES (2019–2024), Palestine benefited from a national activity on plastic-waste management and single-use plastics, while Palestinian stakeholders also participated in regional marine litter training under H2020 CB/MEP.

Monitoring status (CI22 / CI23 / CI24)

Available evidence does not indicate the existence of a regular national monitoring programme for CI22, CI23 or CI24 in Palestine. However, some relevant building blocks are visible. Under Plastic Busters CAP, organisations from the Palestinian Authority joined the 2023 “Clean Up the Med” campaign, a 16-country citizen-based beach clean-up and awareness initiative targeting marine litter across the Mediterranean. While this is not equivalent to a formal IMAP monitoring programme, it suggests that beach-related awareness and participatory activity exist and could potentially serve as an entry point for more structured monitoring in the future.

Reporting arrangements and data flows

Because Palestine is not a Contracting Party to the Barcelona Convention, it does not have formal EO10 reporting obligations under IMAP. The Background Document explicitly notes that Palestine does not appear in the INFO/RAC lists of Contracting Parties uploading EO10 marine litter datasets to the IMAP Info System. This means that, although Palestine is engaged in relevant anti-plastic and waste-related activities, these are not currently linked to formal EO10 reporting pathways.

Alignment with IMAP and relevant regional frameworks

Palestine’s activities are linked to the wider regional marine litter agenda mainly through capacity-building, exchange of experience and broader plastic pollution initiatives, including support from the World Bank in the MENA region. This gives Palestine some exposure to Mediterranean monitoring concepts and good practices, but alignment with IMAP remains indirect rather than operational. In practical terms, Palestine is therefore better understood as a country with relevant preparatory and awareness-related activity, rather than one currently implementing or reporting EO10 monitoring in a formal way.

Main gaps and needs

The main gaps in Palestine concern the absence of a formal Mediterranean EO10 monitoring and reporting framework. Priority needs therefore likely include:

- continued support for plastic-waste and single-use plastic reduction measures;
- practical exposure to IMAP-compatible monitoring methods through regional exchange and training;
- gradual development of simple, structured beach-related monitoring activities where feasible;
- and stronger links between plastic pollution management and future marine litter monitoring potential.

6.8 TUNISIA

Institutional setting

Tunisia has been consistently involved in major regional marine litter initiatives and appears to have a relatively solid institutional and technical basis for EO10 implementation. The Background Document identifies Tunisia as a country of implementation under Marine Litter MED (2016–2019) and a focus country under Marine Litter MED II (2020–2023) and Marine Litter MED PLUS (2024–2027). Tunisia has also received support under WES, participated in H2020 CB/MEP, joined Plastic Busters CAP, and was involved in EcAp MED III, including work on IMAP implementation and strengthening capacities related to the IMAP Info System.

Monitoring status (CI22 / CI23 / CI24)

For CI22, Tunisia appears to have a recurring and project-supported basis for beach litter monitoring. The Background Document notes that within the TouMaLi project (2021–2025), six beaches were surveyed in 2023 at three-month intervals, following an approach comparable to IMAP CI22. Tunisia also benefited from regional training under H2020 CB/MEP, which introduced harmonised beach litter monitoring concepts, and participated in Plastic Busters CAP, which included training on monitoring and pilot campaigns. Webinar findings also show that Marine Litter MED Plus is continuing Adopt-a-Beach work in Mahdia and promoting regular clean-up and monitoring actions.

For CI23, Tunisia appears to have a meaningful but still partly project-based foundation. Under Marine Litter MED, Tunisia hosted pilots on better management of sea-based litter in ports and marinas, and under Marine Litter MED PLUS the focus includes floating microplastics, with support for systematic data collection, analysis and informed decision-making. The webinar findings also indicate that Tunisia has benefited from participatory and project-based work on seafloor and microplastic-related activities, including support from Plastic Busters CAP. This suggests that Tunisia has more than a purely conceptual basis for CI23, but that the degree of long-term institutionalisation is still developing.

For CI24, Tunisia appears to be one of the more advanced WES-BCA partner countries. SPA/RAC webinar findings indicate that under Marine Litter MED II, Tunisia was one of the countries using the sea turtle protocol and strategy developed for CI24 implementation, and that Data Standards and Data Dictionaries for CI24 have already been adopted. In addition, Marine Litter MED PLUS explicitly supports upgrades to EO10 indicators including CI24. This indicates that Tunisia has both project experience and regional methodological support to continue developing CI24 operationalisation.

Reporting arrangements and data flows

Tunisia is listed in the 2025 INFO/RAC overview among the Contracting Parties that uploaded EO10 datasets to the IMAP Info System, indicating that some reporting engagement is already in place. The Background Document also notes that under EcAp MED III, Tunisia focused specifically on IMAP implementation and IMAP Info System strengthening, which suggests that reporting readiness has been addressed not only through field work but also through institutional and system-oriented support. Nevertheless, the currently available material does not fully clarify which modules are reported routinely or how stable the data-flow arrangements are beyond project support.

Alignment with IMAP and relevant regional frameworks

Tunisia appears relatively well aligned with IMAP EO10 and related regional frameworks. It participates in a broad set of relevant initiatives, including Marine Litter MED, Marine Litter MED II, Marine Litter MED PLUS, WES, Plastic Busters CAP and EcAp MED III, and is included in the INFO/RAC reporting overview. It therefore appears to be among the countries with a comparatively good basis for integrating monitoring, project support and formal reporting. In addition to monitoring-related support, recent WES work in Tunisia addressed the prevention dimension of marine litter through support for political and legal measures to reduce and prohibit certain types of single-use plastic packaging. This is not directly focused on EO10 monitoring, but it is relevant to the broader policy and prevention context of marine litter management.

Main gaps and needs

Tunisia appears to have a good foundation for further development across all three indicators, but several needs remain. These are likely to include:

- further consolidation of regular CI22 implementation beyond project cycles;
- stronger institutionalisation of CI23 components such as floating microplastics and sea-based litter;
- continued operationalisation of CI24 using the regional tools already developed;
- and stronger continuity and clarity in reporting workflows to ensure that EO10 data are uploaded regularly and used effectively for national and regional assessments. Tunisia also appears well placed to contribute to regional peer exchange, particularly on multi-project continuity and the operational use of regional methods and tools.

Taken together, the country profiles show that while important progress has been made across the WES-BCA region, implementation remains uneven across countries and indicators, with the most persistent common challenges relating to reporting readiness, data flows, institutional coordination and the practical use of monitoring results for decision-making.

7. FINDINGS & KEY OBSERVATIONS

This chapter brings together the main findings and key observations emerging from the assessment process. It complements the country profiles by identifying broader regional patterns and by highlighting what can be learned from practical implementation experience across the Mediterranean. In particular, it focuses on selected good practice examples, the main regional trends emerging from the review of marine litter monitoring and reporting in the WES-BCA region, the contribution of former projects to the implementation of IMAP Ecological Objective 10 (EO10), and the current status of reporting to the IMAP Info System.

7.1 SELECTED GOOD PRACTICE EXAMPLES

Selected Mediterranean examples reviewed for this assessment show that marine litter monitoring can be organised in different but equally relevant ways, depending on the national context, the environmental matrix concerned, and the institutional capacities available. The examples considered in this report demonstrate that effective monitoring can emerge from fully institutionalised national systems, project-based pilot activities, decentralised implementation through trained local operators, and participatory or community-based approaches, provided that common protocols, standard metadata requirements and adequate quality assurance procedures are in place.

The most useful examples are those that combine several elements at once: harmonised monitoring methods, a clear operational model, some form of data validation or reporting chain, and a link to management or policy action. In this sense, good practice is not defined only by the quality of field data collection, but also by the way monitoring is embedded in wider institutional arrangements and translated into reporting, awareness-raising, mitigation measures or evidence-based decision-making.

The examples reviewed in the course of this assessment illustrate this well. The French CEDRE system is a strong example of how decentralised implementation by local operators can be connected to national coordination, quality assurance, database management and official reporting. The Egyptian

TouMaLi case illustrates how project-supported CI22 monitoring can operate with fixed survey sites, trained teams, standardised forms, a national QA/QC step and feedback to local authorities. The Moroccan experience demonstrates how monitoring can be embedded in an institutional system and connected to public policy evaluation, local stakeholder involvement and mitigation action. The Tunisian Plastic Busters CAP case shows how harmonised methods can support work on floating microplastics and broader EO10 implementation. In addition, the examples of participatory science and community-based monitoring highlight that NGOs, divers, schools and local communities can generate useful data where harmonised protocols and targeted training are provided. Finally, the SPA/RAC experience on CI24 and sea turtle interactions with marine litter shows that regional protocols, data standards and selected national implementation experiences already provide concrete building blocks for the operationalisation of this indicator.

Taken together, these examples show that there is no single model for successful implementation. Rather, the most important lesson is that different monitoring approaches can all be effective if they are linked to common standards, adequate quality assurance, coherent reporting pathways and, where possible, to management or policy follow-up. For the WES-BCA region, the transfer value of these examples lies not only in their methods, but also in their institutional arrangements, reporting logic and capacity-building models.

7.2 REGIONAL SNAPSHOT: HEADLINE FINDINGS

Taken together, the assessment confirms that marine litter monitoring in the WES-BCA region is no longer at an initial stage. Most partner countries have already been exposed to harmonised monitoring concepts and protocols through regional projects, technical assistance, pilot activities or national programmes. Several countries have moved from isolated pilots towards more structured implementation, especially for CI22 beach litter monitoring. At the same time, progress remains uneven across countries and indicators, and there is a clear difference between the existence of monitoring activity and the existence of stable systems for reporting and decision-making.

A first headline finding is that CI22 is the most developed marine litter indicator across the WES-BCA region. In several partner countries, beach litter surveys have already been carried out repeatedly through national programmes, seasonal campaigns, project-based implementation or combinations of these. This reflects not only the relative methodological maturity of beach litter monitoring, but also the fact that CI22 is generally more feasible to implement with limited resources than the other marine litter indicators.

A second headline finding is that CI23 remains more uneven, particularly where sea-surface litter, seafloor litter and floating microplastics are concerned. While important progress has been made in several countries through pilot projects, technical assistance and targeted training, implementation often still depends on access to vessels, divers, specialised equipment, laboratory analysis and project funding. As a result, CI23-related monitoring remains less institutionalised and less consistently repeated than CI22.

A third headline finding is that CI24 is still the least operationalised marine litter indicator in the region, even though this is changing. Compared with previous years, the assessment shows that CI24 is no longer only a future aspiration. Regional protocols, data standards, representative species approaches and selected national implementation experiences now provide a clearer basis for progress. However,

the actual operationalisation of CI24 remains limited and still depends heavily on project support, technical guidance and improved institutional coordination.

A fourth headline finding is that monitoring is often more advanced than reporting. In many countries, useful data have been generated through national initiatives, regional projects or pilot surveys, but the institutional arrangements needed to validate, consolidate, store and report these data in a regular and comparable way remain less well developed. In practice, this means that the existence of field data does not automatically translate into systematic uploads to the IMAP Info System, complete metadata, consistent quality assurance or effective use in regional assessments.

A fifth headline finding is that the region's main bottlenecks are increasingly found in the transition from technical work to institutional use. Monitoring data are not always systematically linked to national planning, mitigation prioritisation, public policy evaluation or communication with relevant authorities and stakeholders. This weakens the broader value of marine litter monitoring and limits its contribution to evidence-based action. The assessment therefore suggests that the next step for the region is not only to expand monitoring, but to strengthen the full chain from data generation to QA/QC, validation, reporting, interpretation and policy uptake.

At the same time, the WES-BCA partner countries already have an important foundation to build on. The Mediterranean already benefits from a strong architecture of regional frameworks, technical guidance, project experience and reporting tools. The priority now is to make these existing systems work more effectively in practice, including through clearer institutional roles, stronger data flows, improved reporting routines and better integration of marine litter data into decision-making processes.

7.3 CONTRIBUTION OF FORMER PROJECTS TO IMAP EO10 IMPLEMENTATION

Former regional and sub-regional projects have played a decisive role in advancing marine litter monitoring and reporting in the WES-BCA region. Taken together, they have provided much of the technical, methodological and institutional basis on which current EO10 implementation now rests. Their contributions, however, have not been evenly distributed across indicators.

The strongest and most consistent project support has been directed towards CI22 beach litter monitoring. Numerous initiatives have contributed to baseline beach litter surveys, seasonal monitoring campaigns, training of field teams, the introduction of harmonised item lists and survey methods, and the strengthening of national beach litter programmes. As a result, beach litter monitoring is the area in which the region has accumulated the broadest practical experience and the clearest examples of repeated implementation.

Support for CI23 has also expanded over time but has been more uneven and more technically demanding. Projects have contributed through pilots on sea-surface litter, seafloor litter, floating microplastics, port and marina-related measures, and training on methods requiring vessels, divers or laboratory analysis. These activities have significantly expanded the region's experience base and demonstrated operational feasibility in several settings. However, they remain more dependent on external support and are still less consistently embedded in regular national systems than CI22.

For CI24, project contributions have been particularly important in creating the first practical basis for implementation. Regional work led by UNEP/MAP and SPA/RAC, together with successive phases of Marine Litter MED, has developed representative-species approaches, protocols, data standards and early national implementation experiences related to marine litter interactions with sea turtles. This means that while CI24 remains the least mature indicator in operational terms, it is no longer only conceptual: the regional system now contains real tools and entry points for future operationalisation. Overall, the contribution of former projects should be seen not only in terms of temporary activities, but also as a cumulative regional legacy. These projects have helped generate methods, datasets, institutional contacts, trained personnel and practical examples that can now be used to strengthen more stable and nationally anchored systems. At the same time, the assessment shows that many countries still rely heavily on project cycles, which underlines the need to move from project-based support towards more durable national monitoring-and-reporting structures.

7.4 REPORTING STATUS FOR EO10 IN THE IMAP INFO SYSTEM

The current reporting picture confirms that progress in marine litter monitoring is not yet matched by equally strong progress in marine litter reporting. According to the available INFO/RAC overview used in this assessment, some WES-BCA partner countries have already uploaded EO10-related datasets to the IMAP Info System, while others do not yet appear in the reporting snapshot. This indicates that the region is still characterised by uneven reporting uptake, both between countries and across indicators. The reporting pattern also differs by indicator. Where reporting exists, it is generally more visible for CI22, whereas CI23 and especially CI24 remain less consistently represented. This reflects the broader regional finding that implementation maturity decreases from beach litter to sea-based litter and then to biota-related monitoring. In practice, this means that many countries may already have useful field experience or pilot data, but these do not yet always enter the formal IMAP reporting pathway in a regular and comparable way.

This gap between monitoring activity and formal reporting is one of the most important findings of the assessment. It suggests that the challenge is not simply to generate more data, but to ensure that existing and future data are accompanied by adequate metadata, quality assurance, harmonised formats and clear national submission pathways. In this sense, reporting readiness should be treated as a core part of EO10 implementation rather than as a final administrative step.

For the WES-BCA region, the operational use of the IMAP Info System therefore remains a priority area for strengthening. Countries that already report can provide useful lessons on how data flows, validation and uploads are organised in practice. Countries that do not yet report routinely may require more targeted support on institutional roles, reporting responsibilities, data preparation and quality assurance. Improving this part of the chain is essential if marine litter monitoring is to contribute fully to comparable regional assessments and to the Mediterranean Quality Status Report.

8. ACTION-ORIENTED RECOMMENDATIONS

The assessment shows that the Mediterranean region already has substantial policy frameworks, technical guidance, regional tools and practical experience to support marine litter monitoring and reporting. The main challenge is now to strengthen implementation in a more systematic way, with particular attention to reporting readiness, institutional integration and the practical use of data for decision-making. The following recommendations are therefore designed to support more effective implementation of IMAP EO10 in the WES-BCA region.

8.1 GOVERNANCE AND COORDINATION

A first priority is to strengthen institutional coordination for marine litter monitoring and reporting at national level. In many countries, responsibilities are distributed across several ministries, agencies, research institutions, laboratories, NGOs and project teams, often without sufficiently clear mandates or permanent coordination mechanisms. Countries should therefore clarify which institutions are responsible for:

- field implementation,
- data validation and QA/QC,
- data storage and consolidation,
- reporting to the IMAP Info System,
- and communication of results to policy and management actors.

Where possible, national coordination arrangements should be formalised through clear mandates, working groups or inter-institutional mechanisms. This would help reduce fragmentation, avoid duplication and make reporting pathways more consistent.

8.2 MONITORING IMPLEMENTATION AND METHODOLOGICAL HARMONISATION

The assessment confirms that the use of harmonised protocols remains essential if data are to be comparable across time, matrices and countries. Continued support should therefore be provided to promote the uptake of agreed protocols for CI22, CI23 and CI24, including common item lists, standard metadata requirements and agreed sampling designs.

Particular attention should be given to indicators that remain less operationalised, especially CI23 and CI24. For CI23, practical guidance should support countries in selecting appropriate approaches depending on available capacities, including visual surveys, diver-based methods and floating microplastic sampling where feasible. For CI24, countries should build on existing regional tools, protocols and data standards, especially those already developed through SPA/RAC and Marine Litter MED processes.

8.3 QA/QC AND DATA MANAGEMENT

A recurring finding across the assessment is that quality assurance and quality control remain uneven. Countries should therefore strengthen QA/QC procedures at all stages of the monitoring chain, including:

- field protocols,
- completeness and consistency checks,
- metadata verification,
- laboratory procedures where relevant,
- and final validation of datasets prior to submission.

In parallel, stronger attention should be given to data management systems, including who stores data, in what format, and under what conditions they can be shared, analysed and reported. Clearer arrangements for data consolidation and access are necessary if datasets are to support both national use and regional reporting.

8.4 REPORTING WORKFLOWS AND USE OF THE IMAP INFO SYSTEM

The assessment clearly shows that reporting workflows are now one of the most important areas requiring support. Countries should define and document the full national reporting chain from field data collection to final submission to the IMAP Info System, including:

- who receives the data,
- who checks and validates them,
- who is responsible for submission,
- and how the reporting status is tracked over time.

Training and technical support should focus not only on field monitoring, but also on report preparation, metadata completion, use of Data Standards and Data Dictionaries, and practical IMAP Info System workflows. Where countries already report, their experience should be documented and shared as practical models for others.

8.5 DATA USE FOR POLICY, MITIGATION AND PLANNING

Marine litter monitoring should be more explicitly linked to public policy evaluation, mitigation planning and priority-setting. Monitoring results should not remain confined to technical reports or isolated project outputs, but should be used to:

- identify hotspots and pressure patterns,
- target prevention and mitigation measures,
- support planning and management decisions,
- evaluate the effectiveness of policies and interventions,
- and communicate trends and priorities to relevant stakeholders.

Countries should therefore strengthen the institutional links between monitoring teams, reporting bodies and decision-makers, so that marine litter data become more useful for environmental governance and not only for technical reporting.

8.6 CAPACITY-BUILDING AND PEER EXCHANGE

Continued capacity-building remains essential, but should increasingly move beyond basic awareness and focus on operational needs. Priority areas for capacity-building include:

- indicator-specific methods for CI22, CI23 and CI24;
- QA/QC and metadata management;
- data flows and reporting responsibilities;
- use of the IMAP Info System;
- and practical integration of monitoring into institutional routines.

At the same time, more structured peer exchange should be promoted across the region. Countries with more advanced systems or stronger experience in specific areas can provide valuable practical lessons for others, especially on how to move from pilot activities to more regular and institutionalised monitoring-and-reporting systems.

Existing regional training on microplastics has already shown the value of targeted capacity-building for technically demanding parts of EO10 implementation. The WES RE-2-REG activity, for example, aimed to strengthen capacities to understand, monitor and assess microplastics and to support the design of policy responses addressing microplastic leakage. Similar targeted regional training formats should be continued and expanded, especially for CI23-related monitoring components.

8.7 PARTICIPATION OF LOCAL ACTORS, NGOS AND CIVIL SOCIETY

The assessment also shows that local actors, NGOs, citizen science initiatives and community-based approaches can make a valuable contribution, particularly for beach litter monitoring and awareness-related components. Their role can be especially useful in expanding spatial coverage, increasing local ownership and connecting monitoring with public engagement. However, where such approaches contribute to official monitoring or reporting, they should be based on harmonised protocols, appropriate training and clear validation procedures. Rather than treating participatory approaches as separate from formal systems, countries should explore where and how they can complement national monitoring in a credible and structured way.

8.8 FROM PROJECT-BASED SUPPORT TO MORE DURABLE NATIONAL SYSTEMS

A final overarching recommendation is to move progressively from project-based implementation towards more durable national systems. Regional projects have played a crucial role in building methods, capacity and practical experience, but the assessment shows that long-term progress now depends on stronger institutional embedding. This means:

- securing continuity of monitoring beyond project cycles,

- formalising responsibilities,
- building national reporting routines,
- and linking marine litter monitoring more clearly to national strategies and existing governance frameworks.

The objective should not be to replace regional project support, but to use it more strategically as a stepping stone towards stable national systems that can generate, validate, report and use marine litter data on a regular basis.

9 WAY FORWARD AND PROPOSED FOLLOW-UP

The way forward for the WES-BCA Partner Countries should build on the substantial progress already achieved through regional frameworks, technical guidance, pilot monitoring activities, training and selected national implementation experiences. The priority should no longer be to develop new frameworks, but to consolidate existing tools and experience and translate project-based activities into more stable national monitoring and reporting systems.

Future support should focus on three closely linked priorities. First, reporting readiness should be strengthened as a core part of EO10 implementation. This includes clearer national data flows, stronger QA/QC and metadata procedures, defined responsibilities for validation and submission, and more practical use of the IMAP Info System. Second, targeted support should be provided for those indicators that remain less operationalised, especially CI23 and CI24. Third, monitoring results should be more systematically linked to mitigation planning, policy evaluation and national decision-making.

A possible follow-up support package could therefore be structured around a limited number of practical workstreams:

- support for national reporting chains and IMAP Info System operationalisation;
- targeted assistance for CI23 and CI24 implementation;
- practical tools, templates and SOP-like guidance for data flows, QA/QC and reporting;
- support for national coordination mechanisms linking monitoring institutions, reporting bodies and policy actors;
- and regional peer learning and coaching based on transferable country examples, building where relevant on WES peer-to-peer exchange processes.

Such support would not need to start from scratch. It could build directly on the legacy of Marine Litter MED, Marine Litter MED II, Marine Litter MED PLUS, WES, SWIM-H2020 SM, Plastic Busters CAP, TouMaLi, EcAp MED III and other relevant initiatives. The main added value of a future phase would be to help partner countries move from knowledge, training and pilots towards routine implementation, regular reporting and stronger use of marine litter data for action.

Overall, the next phase should focus on making marine litter monitoring and reporting systems more coherent, institutionalised, report-ready and decision-relevant. This would strengthen EO10 implementation under IMAP and improve the practical contribution of marine litter data to national and regional policy development, planning and mitigation efforts.

10. CONCLUSION

This Assessment Report complements the Background Document prepared under the WES-BCA activity on marine litter monitoring and reporting. It brings together the main findings from the desk review, webinar and related assessment work, with particular attention to reporting systems, data flows, data use and decision-making.

The assessment confirms that important progress has been made across the WES-BCA region. Regional policy frameworks, technical guidance, harmonised methodologies and reporting tools are already available, and many partner countries have gained practical experience through projects, pilot activities and selected national programmes. CI22 is the most developed indicator, while CI23 and especially CI24 still require further consolidation, operationalisation and institutional support.

The main remaining challenge is to strengthen the full chain from monitoring to reporting and use. In many cases, data is already being generated, but the arrangements for QA/QC, validation, data management, IMAP Info System reporting and policy uptake remain incomplete or uneven. The next phase of support should therefore focus on reporting readiness, clearer institutional responsibilities, stronger national data flows and better integration of marine litter data into mitigation planning and decision-making.

Overall, the WES-BCA partner countries have a strong foundation on which to build, but marine litter monitoring and reporting are not yet fully institutionalised across all indicators and countries. Future efforts should therefore use existing regional tools and project experience more strategically to support more stable and sustainable national systems, regular reporting and more effective implementation of IMAP EO10 in the Mediterranean.

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