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**STRATEGIC ENVIRONMENTAL ASSESSMENT OF
THE SEA BASIN STRATEGY DOCUMENT
SOUTH ATLANTIC**

Environmental report
submitted for
consultation

February 2021



Évaluer les Politiques et Innover
pour les Citoyens et les Espaces



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1. Non-technical summary

INTRODUCTION

The Sea Basin Strategy Documents (SBSDs) must be subject to an impact assessment, as mentioned in article R122-17 of the Environmental Code.

The purpose of this environmental assessment is to ensure the relevance of the choices made with regard to environmental issues by assessing the positive and negative impacts in a predictive way, and by proposing, if necessary, measures to avoid, reduce or compensate for the negative impacts. This assessment was carried out by a group of independent consultants, responsible for producing the report, and monitored by a steering committee made up of the Minister of Ecological Transition (MET), the four DIRM (Interregional Directorate for the Sea) and the public establishments providing scientific and technical support for the drafting of the SBS (OFB, IFREMER and CEREMA).

The particular context of the development of the SBSDs gives this SEA certain special features:

- (1) it concerns a strategy document in the field of sustainable development at sea, which therefore pursues environmental targets. As a result, the initial state of the environment and the objectives to be achieved in this area are inseparable from the SBS, through its marine environmental component, constituted by the PAMM (Marine Environment Action Plan);
- (2) it is part of an iterative consultation process, because the SBS is involved in the implementation of two European directives that do not have the same precedence;
- (3) the fact that the SBS was developed in two stages - strategic and then operational — each of these is subject to an environmental assessment, and the operational part, which is the subject of this report, benefits from the feedback from the Environmental Authority (EA) on the strategic part.

This environmental report was produced between October 2019 and January 2021, with three main methodological focuses, largely inspired by the EA's opinion on the environmental assessment of the strategic part:

- a more precise assessment of the significant effects of the SBS on the environment by: (1) reinforcing the spatialisation of the analysis, (2) analysing more precisely and in a spatialised manner at the level of each vocation zone, the status of the various environmental issues with regard to Good Environmental Status or in terms of the level of concern and (3) combining a number of characteristics with the nature of the impacts identified, that allow them to be better compared and analysed in a comprehensive manner;
- a more integrated approach to environmental and socio-economic objectives by: (1) seeking to analyse the overall impact of the SBS actions through the way the actions were organised in a combined manner in the Action Plan and through the links between the actions and (2) seeking to mobilise some of the results of

cost-effectiveness analysis and analysis of the economic and social impacts of the proposed actions;

- an iterative approach integrated into the development process by: (1) providing for three successive iterations, each including an impact assessment and proposals for improving the way in which environmental issues are taken into account in the proposed actions and (2) developing tools and methods of representing impacts, to enable exchanges with the coastlines on the impact assessment of their action plan and to integrate changes in the action plan as they occur.

There are also four main limitations:

- (1) the existing uncertainties concerning, on the one hand, the assessment of the good status of many environmental issues and, on the other hand, the precise knowledge of the pressures exerted on the marine environment by many human activities;
- (2) the impossibility of "quantifying" the overall impact of the proposed action plan, as the different impacts can be counted and compared according to various criteria, but in no way scaled in terms of scope in relation to each other;
- (3) the context of the health crisis in which the environmental assessment took place, which greatly hindered the iterative process which was a central methodological focus of the approach;
- (4) the same health crisis context has deeply affected many socio-economic activities in coastal areas, without it being possible to know to date whether this will constitute lasting disruption or whether it will return to the pre-crisis situation, therefore making it impossible to establish a trend scenario without SBSDs.

BRIEF PRESENTATION OF THE SBSDs AND THEIR DEVELOPMENT CONTEXT

From a formal point of view, the Environmental Code stipulates (Articles R219-1-7 to R219-1-14) that the sea basin strategy document includes four parts:

- the existing situation, the issues and a vision for the future of the coastline desired in 2030; (part 1)
- the definition of strategic targets from an economic, social and environmental point of view and the associated indicators; they are accompanied by a vocation map which defines, within the maritime areas, consistent zones with regard to the issues and general objectives assigned to them; (part 2)
- the methods for evaluating the implementation of the strategy document; (part 3)

- the action plan. (part 4)

Parts 1 and 2 of the Sea Basin Strategy Document constitute the "**sea basin strategy**", which was developed in 2018 and was the subject of an initial strategic environmental assessment. Following consultations, this sea basin strategy was officially adopted in each coastline in September/October 2019.

Parts 3 and 4, namely the monitoring measures and the action plan, constitute the **operational part** of the SBS. The latter was developed between July 2019 and January 2021 and is the subject of a second Strategic Environmental Assessment of the SBS. **This report concerns this second SEA and therefore focuses on the operational part of the SBS.**

The sea basin strategy documents are the result of two directives:

- **The Marine Strategy Framework Directive** (Directive 2008/56 of 17 June 2008), which aims to restore or maintain the good environmental status of the marine environment by 2020. For example, Member States must draw up Marine Environment Action Plans to be reviewed every six years.
- **The Maritime Spatial Planning Directive** (Directive 2014/89 of 23 July 2014) which establishes a framework for maritime planning and requires Member States to ensure coordination of different activities at sea. Thus, by 2021, they must develop plans that identify the spatial and temporal distribution of relevant, existing and future activities and uses in their marine waters.

They include, as such, the elements of maritime spatial planning and the marine environment action plan.

The SBS is drawn up under the management of the coordinating prefects: the maritime prefect and the regional prefect coordinating the coastline. This prefectural partnership is based on a coastline administrative commission, the composition of which is set by interprefectural order 49/2016 of 9 June 2016, and on the sea basin council (CMF), a consultation body provided for by article L.219-6-1 of the Environmental code, which each coastline has had since 2010. The CMF's mission is to facilitate the coordination of the use, development, protection and enhancement of the coastline and the sea, in consultation with all governance stakeholders.

The drafting of the SBS is therefore part of a maritime and coastal spatial planning methodology. The Interregional Directorate for the Sea (DIRM) deals with managing the project.

At a national level, coordination is dealt with by the Delegation for the Sea and the Coast (DML) and the Directorate of Water and Biodiversity (DEB), departments of the Ministries of the Sea and of Ecological Transition.

With regard to the development of the operational part in particular, it is necessary to highlight :

- that the process of developing environmental actions and socio-economic actions has some differences, both in method and timing. The main one is that the development

of environmental actions is managed at a national level (DEB), while socio-economic actions managed by the DIRM;.

- that the integration of the various actions into a single action plan was mainly the responsibility of the DIRM, with the national steering committees not dealing with this issue much.

Finally, a special effort has been made to link the development of sea basin strategies with the water development and management master plans (SDAGE). This document also identifies other documents with which the SBS will need to be linked.

THE ENVIRONMENTAL ISSUES OF THE COASTLINE

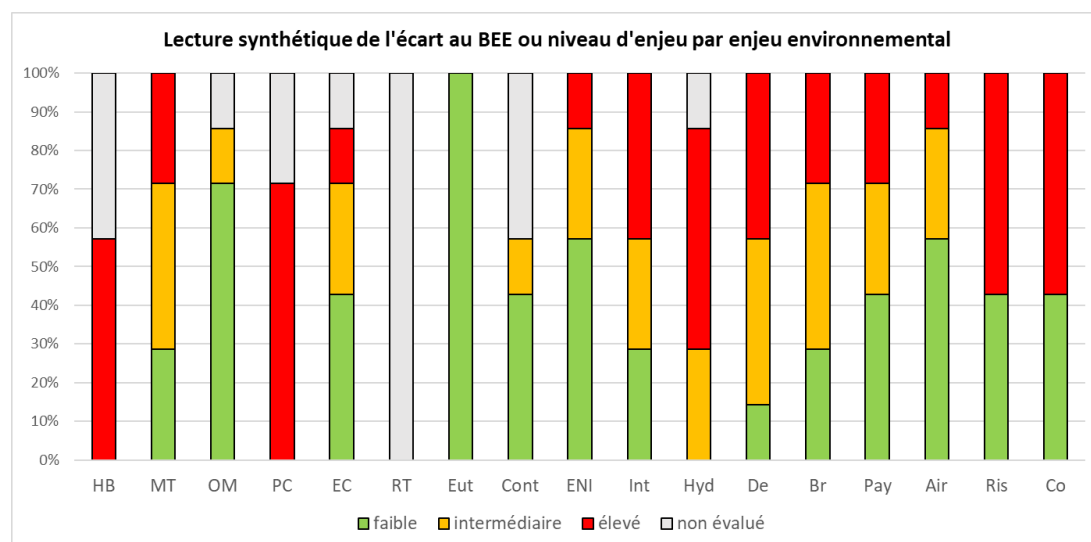
Seventeen environmental issues were identified, based in particular on the descriptors of good environmental status (GES) as defined by the MSFD. They are presented in the table below.

Issue category	Acronym	Environmental issue	Connection to MSFD descriptors	Typical elements
Issues related to the components of the marine environment	HB	Benthic habitats	D1-HB	Quality of major biogenic, rocky, sedimentary, deep, wetland habitat types
	MT	Mammals and turtles	D1-MT	Species distribution and abundance: home range of sedentary groups of bottlenose dolphins, seal colonies, feeding areas, other cetaceans
	OM	Sea birds	D1-OM	Species distribution and abundance: nesting, feeding areas, colonies, wintering sites of sea birds and coastal birds, maximum density areas, functional areas
	PC	Fish and cephalopods	D1-PC	Species distribution and abundance: functional fishing areas (spawning grounds, nurseries), localised populations (benthic invertebrates, elasmobranchs), concentration and migration areas for diadromous fish
	EC	Commercial species	D3	Stock status of commercially exploited fish and shellfish species
	RT	Food webs	D4	Trophic balance
Issues related to pressures on the marine environment	ENI	Non-indigenous species	D2	Non-indigenous species that are invasive or disrupt ecosystems
	Eut	Eutrophication	D5	Human-induced eutrophication
	Int	Seabed integrity	D6	Integrity of the seabed and artificialization of the coastline
	Hyd	Modification of the water conditions	D7	Hydrographical conditions
	Cont	Chemical and biological contamination	D8 and D9	Chemical contaminants in the environment, phycotoxins, microbiological contaminants
	De	Waste	D10	Amount of floating, coastal, seabed, ingested waste and micro-waste
	Br	Noise	D11	Level of noise disturbance

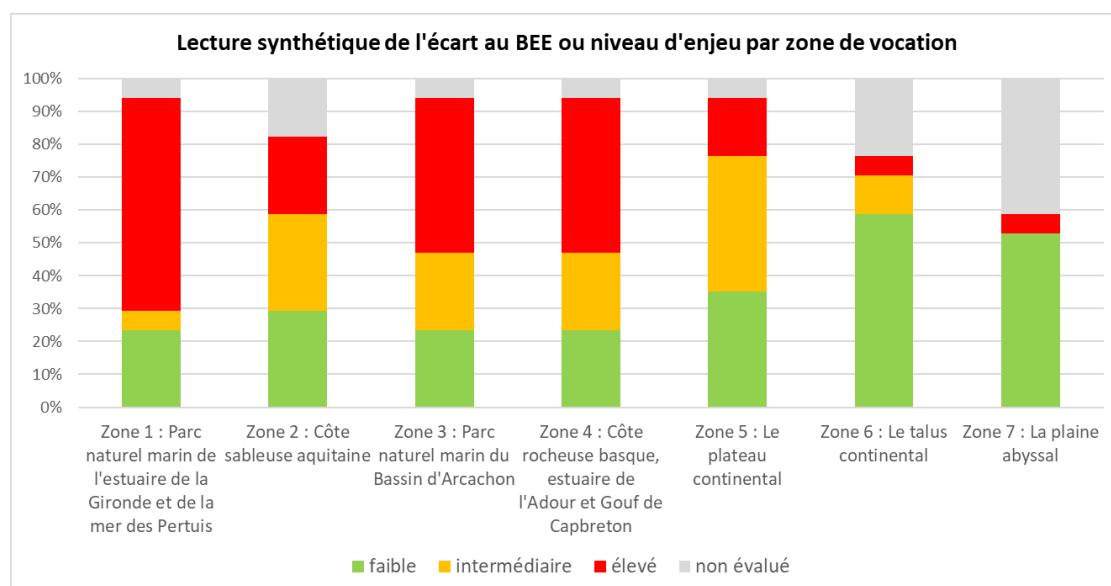
Other societal issues	Pay	Landscapes and underwater landscapes	Not relevant	Elements of coastal (lighthouses, classifications) and underwater landscapes
	Air	Air quality	Not relevant	Greenhouse gases, air pollutants
	Ris	Natural and human risks	Not relevant	Climatic, natural and industrial risks
	Co	Knowledge	Not relevant	Production of knowledge on environments, species and socio-economic activities

For each of these 17 issues, the report presents : (1) a summary of their main characteristics on the coastline, (2) a summary of their current status, (3) a spatial analysis of the deviation from good status or the level of concern in terms of vocation zones and (4) a summary of the links between anthropogenic activities and this status (main pressures of anthropogenic origin that can affect this status, on the one hand, and the degree of dependence of anthropogenic activities on this status, on the other).

The two graphs below present the summary of the spatial analysis carried out concerning the deviation from the GES or the level of concern, the first being an interpretation by environmental issue and the second an interpretation by vocation zone.



The percentages are relative to the number of vocation zones (i.e. 7). For example: for benthic habitats, the GES gap is high for more than 50% of the vocation areas, the other half could not be assessed.



The percentages are relative to the number of issues (i.e. 17). For example: in zone 1, about 75% of the issues have an GES deviation or a high issue level.

The first graph highlights the most significant issues for the coastline: fish and cephalopods, benthic habitats, then hydrographical conditions, risks and knowledge, where the deviation from the GES or a level of concern appears high for more than 50% of the vocation zones. Then, the issues of marine mammals and turtles, integrity of the seabed, noise, waste and landscape also present a significant level of concern (intermediate or high) in the majority of zones. Food webs, contaminants and benthic habitats also show an insufficiently assessed deviation from the GES. The issues of air quality, non-indigenous species and commercial species are less significant on the SA coastline, with very few zones showing a high level of concern or a high deviation from good status. Finally, the issues with a rather low GES deviation in the majority of zones are sea birds and eutrophication. In general, it should be noted that the reliability of the assessment of issues related to the biocoenosis is generally less good than the reliability of issues related to pressures or other societal issues.

The second graph shows that zones 1, 3 and 4 appear to have the most significant environmental issues, with a majority of the environmental issues having a high level of concern or deviation from good status, compared to the other zones. The zones with the lowest GES deviation are the offshore zones 6 and 7, but at the same time they have a significant proportion of issues that could not be assessed; the issue of knowledge thus appears to be important here.

IMPACT ANALYSIS

Situation in the absence of a SBSD

In order to try to clarify the progression of environmental issues in the absence of a SBSD, we can try to analyse the trend of pressure-producing activities. The available data and indicators on the recent progression of these activities have been researched and the summary that can be made in terms of trends is given in the table below.

Activity	Summary	Summary reliability
Seaside activities/Coastal tourism	↗	+
Agriculture	↘	++
Aquaculture	→	+++
Coastline artificialization	↗	+
Underwater cables	↗	+
Shipbuilding	→	++
Defence	↗	++
Extraction of materials	↘	++
Industries	↘	+
Recreational sailing	↗	++
Recreational fishing	↗	++
Professional fishing	↘	++
Energy production	↗	+
R&D	→	+
Maritime public works	↘	+
Maritime transport	→	+

Two important findings emerge from this table:

— on the one hand, some of the most significant activities on the coastline have been declining in recent years: professional fishing, extraction of materials, industry in particular, and others have been growing: seaside activities, coastline artificialization, recreational fishing, energy production.

— on the other hand, the reliability of these trend estimates remains limited, in the absence of an effective system for monitoring the progression of pressures exerted by socio-economic activities, which has yet to be developed (see part 7 of this report).

It could be deduced from the first finding that, in the absence of a SBS, pressures will continue on the marine environment (in connection with the growing trend of coastal artificialization, the development of offshore energy production zones, or maritime transport, tourist, leisure and sailing activities, for example), leading to a deterioration of environmental issues. At the same time, the observed decline in other activities (fishing, industry, material extraction) could, however, help to reduce certain pressures. In any case, such a forecast, based on a simple extension of recent trends, is nevertheless very unreliable, for at least two reasons:

(1) the health crisis experienced worldwide in 2020 has had a major impact on the dynamics of many economic activities (e.g. passenger transport), and it is very difficult to know now whether a return to the previous dynamics will take place or whether there will be a lasting break in the trend;

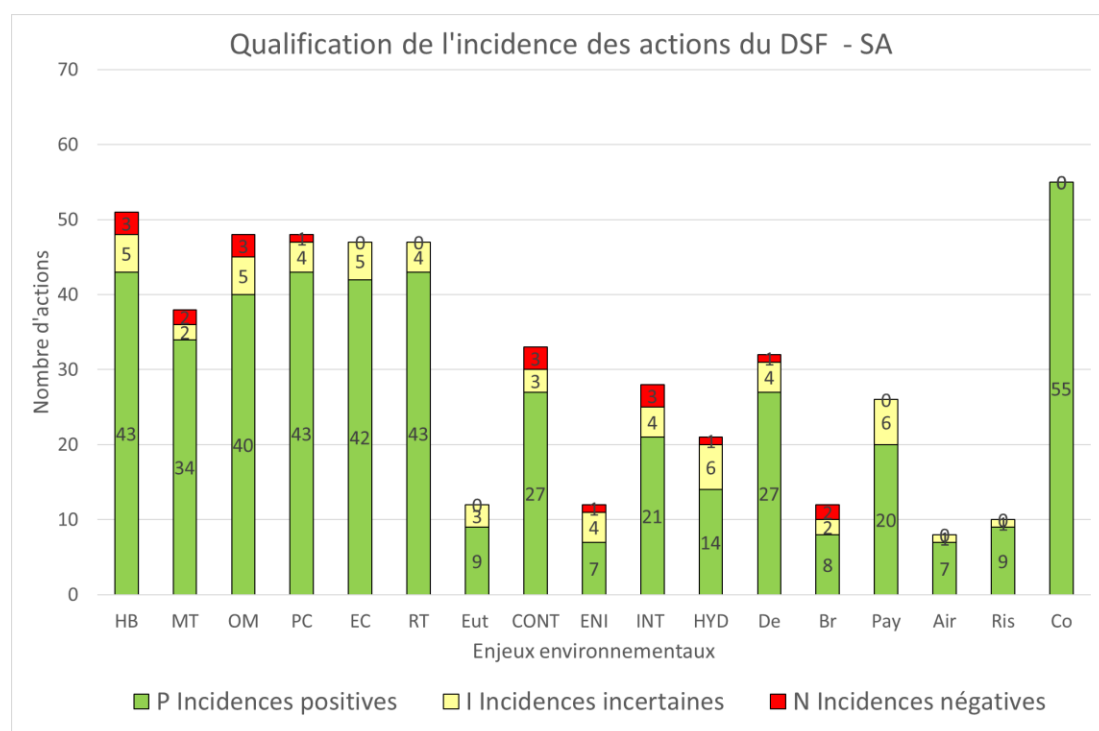
(2) the level of uncertainty in the data and indicators mentioned above also makes this exercise of extending past trends very uncertain.

Impact analysis on environmental issues

IMPACT OF THE DIFFERENT ACTIONS OF THE ACTION PLAN

The action plan includes 46 environmental actions and 43 socio-economic actions, which have varying degrees of positive, negative or uncertain impact, with a significantly higher proportion of positive impacts.

The following graph shows the impact of the actions on each issue.



The environmental issues related to the components of the marine environment (benthic habitats, mammals and turtles, sea birds, fish and cephalopods, commercial species and the food web) are well covered by the action plan and the impacts are also strongly positive. No negative impacts are noted on EC and RT issues, but uncertain impacts remain.

Regarding the issues related to pressures (eutrophication, contaminants; non-indigenous species, seabed integrity, hydrographical conditions and waste and noise), two groups emerge: the issues covered well by the Action Plan (Cont, Int, Hyd and De), and the issues for which the action plan will have less impact: Eut, ENI and Noise.

With regard to societal environmental issues, the action plan will have a positive impact, with no negative impacts being noted. In total, with regard to the number of actions having an impact on the knowledge issue, the action plan will bring about a definite improvement

in the understanding of the impacts of socio-economic activities on the environment. Air quality and risk issues are covered less by the action plan.

In total, three socio-economic actions result in negative impacts, which are nevertheless linked to other socio-economic and environmental actions allowing a reduction of their potential effects.

The main results of the impact analysis of the actions on the different parts of the action plan are summarised in the table below:

Activities	Action plan actions	Impact
1. Professional fishing	3 socio-economic actions 5 environmental actions	The impacts are overwhelmingly positive. They should lead to a reduction in pressure on commercial species, an improvement in knowledge which will potentially lead to proposals for changes in equipment limiting incidental catches (MM, OM), more selective (PC, RT), less impacting on the seabed (HB), less polluting (Air), favouring the recovery of lost fishing nets (MT, PC) and waste (De), improving the awareness of functional fishing areas (PC) and deep-sea habitats (HB), and the preservation of trophic balance (RT).
2. Aquaculture	3 socio-economic actions	The nature of these impacts is largely positive (17 positive impacts). The intensity of potentially negative impacts (8) will depend on the actual implementation of the aquaculture areas and the definition of the projects (location of sites, stocking density, methods used, etc.). These negative impacts should be put into perspective: the objective of the SBSDE actions is to anticipate potential development areas, to allow for the selection of sectors of least concern and to better understand future impacts.
3. Ports and maritime transport	3 socio-economic actions 2 environmental actions	The impacts are largely positive (11). The rest of the impacts are uncertain (8), related to a potential development of maritime cargo ship traffic. The positive impacts are particularly related to a reduction in pressure on marine mammals and contaminants.
4. Shipping and nautical industries	4 socio-economic actions	The impacts are all positive. They focus on improving knowledge by supporting innovation (Co), reducing waste, noise and pollutants (Cont, De, Air, Br). Note that these effects should be positive for water quality and the environment and therefore beneficial for the entire food web.

Activities	Action plan actions	Impact
5. Marine renewable energy	2 socio-economic actions 1 environmental action	<p>The nature of these impacts is either negative (12), uncertain (12) or to a lesser extent positive (6).</p> <p>The negative and uncertain impacts result from the desire to develop marine renewable energy (MRE) projects in SA (currently only 1 project), in accordance with the guidelines and objectives set out in the multiannual energy programme adopted in 2020: The intensity of negative and uncertain impacts will therefore depend on the actual implementation of MRE projects and their definition (location of sites, mode of operation, methods used, etc.).</p> <p>The SBSD's action plan proposes actions to best support these projects: consultation, installation of a scientific college of recognised experts and a management and monitoring committee for MRE projects, a coordination body at national level. In addition, several environmental actions will provide more precise knowledge of the areas of concern for better consideration when defining projects.</p>
6. Marine and estuarine sediments	1 socio-economic action 2 environmental actions	<p>The nature of these impacts is either positive (11) or uncertain (9). The SBSD's action is aimed at better awareness of impacts (planning, improving knowledge and methodological guidance for impact studies), reducing pressures: pollution, destruction of the seabed (HB, MT, OM, PC, EC, RT, Int, Cont) by means of shared actions and by reusing dredged sediments. The uncertain impacts are linked to the DOGGM (Guidance document for the sustainable management of marine aggregates) objectives: if the DOGGM leads to additional extractions compared to as things stand, the impacts will be potentially negative.</p>
7. Sailing and water sports	3 socio-economic actions 5 environmental actions	<p>The impacts are largely positive (46). The remaining impacts are uncertain (2). The actions should allow for a better organisation of areas, an awareness of the public and of the socio-economic stakeholders linked to tourism and of yachting to environmental issues.</p>
8. Coastal development and change	9 socio-economic actions 3 environmental actions	<p>The impacts are largely positive (54). The remaining impacts are uncertain (14). The main issues affected by these impacts are knowledge, landscape, risk, sea birds, benthic habitats and seabed integrity.</p>

Activities	Action plan actions	Impact
9. Maritime safety and security	3 socio-economic actions	All 8 potential impacts are positive. They concern the fight against the risks of pollution, leading to a reduction in the risk of impact on habitats and marine fauna.
10. Knowledge and research	5 socio-economic actions	The impacts are exclusively positive. They obviously focus on an improvement in knowledge, its dissemination, sharing and promotion, which will indirectly lead to a better awareness of the issues related to biodiversity in particular.
11. Innovation	1 socio-economic action	A single new action related to innovation: it is likely to generate a positive impact with regard to knowledge, by promoting exchanges and communicating on the aid available for innovation. The impacts that will indirectly result from this action are still too uncertain at this stage, to be noted here.
12. Training, awareness and attractiveness of nautical professions	5 socio-economic actions	There is no impact on environmental issues.
13. Waste	7 environmental actions	These actions lead to 66 exclusively positive impacts. The reduction of waste will indirectly have positive impacts on the marine ecosystem and on all biodiversity issues, and for some actions also on landscape, NIS and eutrophication issues.
14. Preservation of the marine environment and land-sea link	1 socio-economic action 21 environmental actions	These actions potentially result in 159 positive impacts on environmental issues. 15 actions target specific issues, either biodiversity protection (e.g. marine mammals, migratory fish, etc.) or pressure (e.g. noise, ENI). Six actions are cross-cutting: these are protection actions, not targeted or localised at this stage, environmental management actions or actions to strengthen controls.

CUMULATIVE IMPACTS OF THE ENTIRE ACTION PLAN

The issues in the first group, referred to in the previous section as "issues related to the components of the marine environment", have a high number of impacts, the majority of which are positive, but with a significant proportion of medium to long-term occurrence and a high level of uncertainty. Although the strong dominance of positive impacts, as well

as the localised nature of the negative impacts (MRE implementation zone, possible aquaculture development zones) make it possible to conclude that the action plan has a positive overall impact on them, it is impossible to decide on its extent and therefore on the action plan's capacity to restore good status. Moreover, these issues are not in the same situation with regard to the GES:

- two of them show a significant overall deviation from the GES, which seems difficult to bridge on the basis of this first action plan (benthic habitats, fish and cephalopods);

two issues in this first group (mammals and turtles and commercial species) show a deviation from the intermediate GES, which should therefore tend towards improvement at action plan level. However, the level of reliability in assessing these two groups remains low;

- the issue regarding sea birds is considerably more favourable, which the action plan should at least reinforce, even if the impact of the future wind farm on sea and migratory birds will call for the utmost vigilance;

- the GES is not defined for the food web issue and the deviation from it is not assessed, making it even more difficult to comment on the overall impact of the action plan on this issue.

On the issues in the second group, known as "issues related to pressures on the marine environment", the impact of the SBSB should be less significant than for those in the first group, given the smaller number of actions having an impact on these issues, even if this smaller number is partly offset by a higher proportion of short-term impacts. Furthermore, the overall impact of the action plan is likely to be more or less significant depending on the different issues making up this second group:

- rather modest for eutrophication, ENI and noise, which does not have the same consequences given the different status of these issues (see section 4). Eutrophication is indeed rather favourable on the coastline, in contrast to noise and ENI which are intermediate issues. So, while the a priori modest impact of the action plan seems to be somewhat problematic for eutrophication, it could be even more problematic in some vocation zones for noise pollution and ENI;

- more significant for contaminants, seabed integrity, hydrographical conditions and waste. The greater impact of this plan on these four issues is all the more relevant as they present fairly high levels of concern (except for the contaminants issue, which presents a lower GES deviation but for which half of the vocation zones could not be assessed). Nevertheless, it is all the more impossible to comment on a possible return to good status as this has not been defined for three of them (waste, hydrographical conditions and seabed integrity);

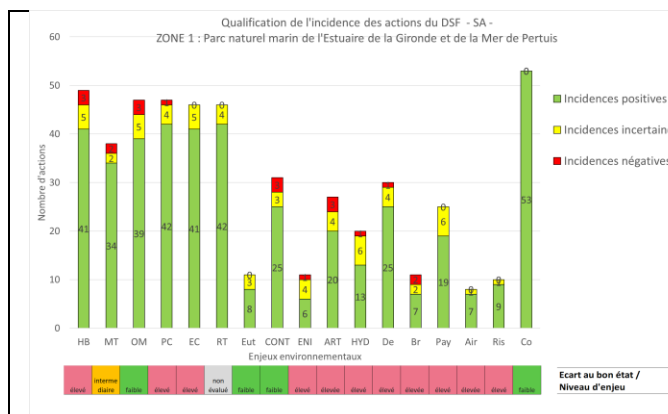
The issues in the third group "Other societal issues" will all be positively impacted by the action plan, as the plan has a very high proportion of positive impacts and no negative impact on them. However, the overall effect that can be expected from the action plan differs quite widely for each of these four so-called 'societal' issues:

- the action plan has a fair number of landscape impacts, the vast majority of which are positive. The overall effect will be all the greater if the actions with these impacts are targeted at the zones where the landscape issues are the strongest. In addition, attention should be paid to the uncertain impact of the creation of large-scale wind farms on the landscape;
- there are a lot fewer impacts on air quality, although almost all of them are positive. With regard to the fight against atmospheric pollution, it is not certain that the plan is equal to the challenges, which are quite high overall. With regard to the reduction of GHG emissions, it is difficult to comment with the absence of a diagnosis of the initial situation;
- there are also relatively few risk impacts, for a relatively high issue on a large part of the coastline;
- finally, the impacts on knowledge are numerous, all positive and mostly short-term. The plan should therefore significantly improve the level of knowledge about the coastline, which is highly relevant given the existing uncertainties.

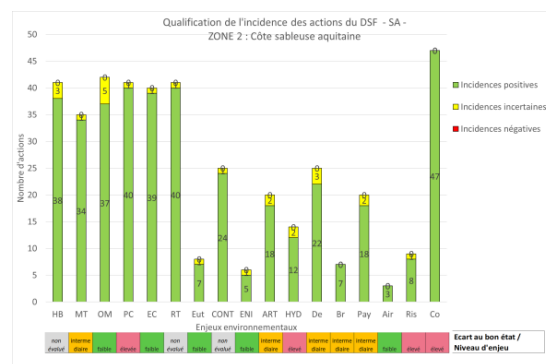
SPATIALISED IMPACTS AT VOCATION ZONE LEVEL

With regard to the vocation zones affected by the stated impacts, two profiles of vocation zones can be distinguished: the offshore and the coastal vocation zones:

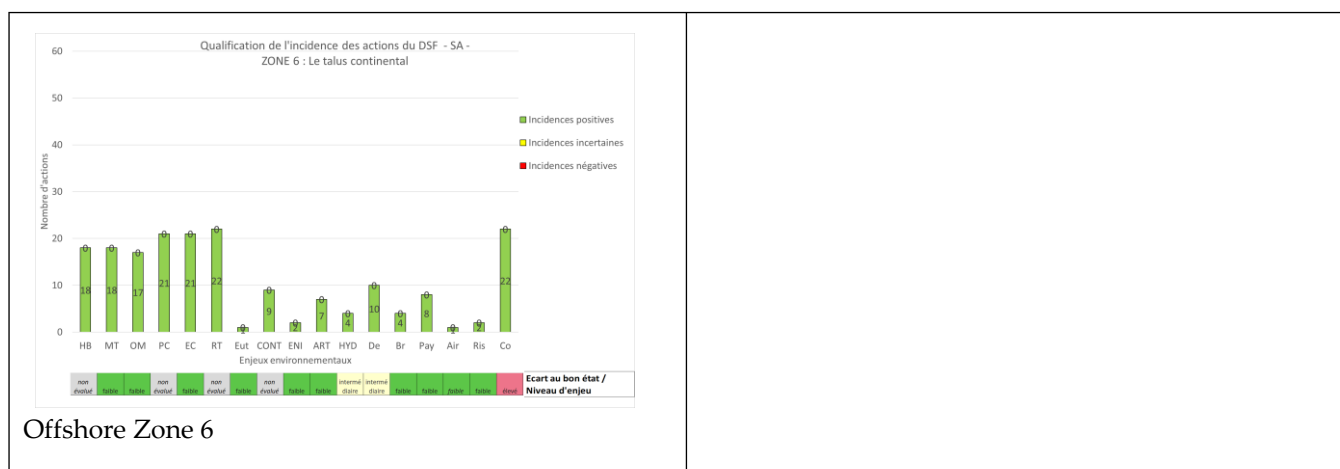
- the coastal areas overall have a fairly similar impact profile, close to the profile of the whole coastline described in the sections above. Among the coastal zones (1, 2, 3, 4), it should nevertheless be noted that the profiles of zones 2 and 3 are virtually free of negative effects (see below an illustration of a coastline 1 zone)
- the offshore zones have a much lower number of impacts, which is related to the overall lower issues in these zones (see illustration below of an offshore zone 6).



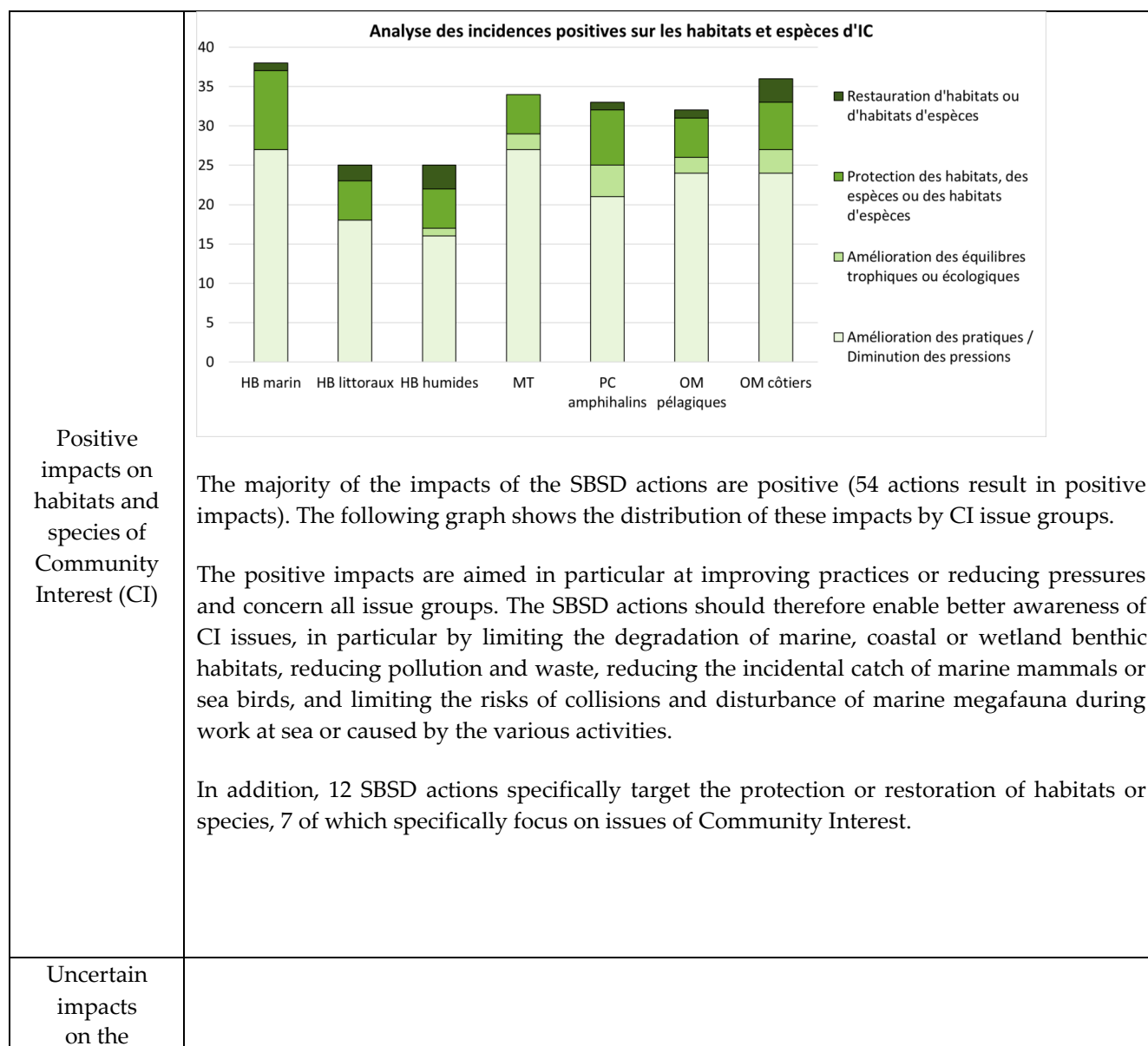
Coastal Zone 1



Coastal Zone 2



SBSD IMPACTS ON COASTLINE NATURA 2000 SITES



CI habitats and species	<div>Analyse des incidences incertaines sur les habitatst et espèces d'IC</div> <table><thead><tr><th>Action Group</th><th>Amélioration des pratiques / Diminution des pressions</th><th>Destruction d'habitats benthiques ou d'habitats d'espèces</th><th>Dégradation d'habitats benthiques ou d'habitats d'espèces</th><th>Destruction d'espèce</th><th>Dérangeement d'espèce</th></tr></thead><tbody><tr><td>HB marin</td><td>1</td><td>3</td><td>0</td><td>0</td><td>0</td></tr><tr><td>HB littoraux</td><td>0</td><td>3</td><td>0</td><td>0</td><td>0</td></tr><tr><td>HB humides</td><td>0</td><td>1</td><td>0</td><td>0</td><td>0</td></tr><tr><td>MT</td><td>1</td><td>0</td><td>0</td><td>1</td><td>0</td></tr><tr><td>PC amphihalins</td><td>1</td><td>1</td><td>0</td><td>0</td><td>0</td></tr><tr><td>OM pélagiques</td><td>1</td><td>1</td><td>0</td><td>0</td><td>0</td></tr><tr><td>OM côtiers</td><td>1</td><td>3</td><td>0</td><td>0</td><td>0</td></tr></tbody></table> <p>8 actions may result in uncertain positive or negative impacts on CI habitats and species at this stage. The following graph shows how uncertain impacts are distributed across the CI issue groups.</p> <p>These uncertain impacts may have rather positive effects (related to possible improvement of practices), or negative effects (related to possible destruction or degradation of habitat, destruction or disturbance of species).</p>	Action Group	Amélioration des pratiques / Diminution des pressions	Destruction d'habitats benthiques ou d'habitats d'espèces	Dégradation d'habitats benthiques ou d'habitats d'espèces	Destruction d'espèce	Dérangeement d'espèce	HB marin	1	3	0	0	0	HB littoraux	0	3	0	0	0	HB humides	0	1	0	0	0	MT	1	0	0	1	0	PC amphihalins	1	1	0	0	0	OM pélagiques	1	1	0	0	0	OM côtiers	1	3	0	0	0
Action Group	Amélioration des pratiques / Diminution des pressions	Destruction d'habitats benthiques ou d'habitats d'espèces	Dégradation d'habitats benthiques ou d'habitats d'espèces	Destruction d'espèce	Dérangeement d'espèce																																												
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Negative impacts on CI habitats and species	<div>Analyse des incidences négatives sur les habitats et espèces d'IC</div> <table><thead><tr><th>Action Group</th><th>Destruction d'habitats benthiques ou d'habitats d'espèces</th><th>Dégradation d'habitats benthiques ou d'habitats d'espèces</th><th>Destruction d'espèce</th><th>Dérangeement d'espèce</th></tr></thead><tbody><tr><td>HB marin</td><td>2</td><td>1</td><td>0</td><td>0</td></tr><tr><td>HB littoraux</td><td>1</td><td>0</td><td>0</td><td>0</td></tr><tr><td>HB humides</td><td>1</td><td>0</td><td>0</td><td>0</td></tr><tr><td>MT</td><td>0</td><td>0</td><td>2</td><td>0</td></tr><tr><td>PC amphihalins</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>OM pélagiques</td><td>0</td><td>2</td><td>0</td><td>0</td></tr><tr><td>OM côtiers</td><td>0</td><td>2</td><td>0</td><td>0</td></tr></tbody></table> <p>3 actions in the SBSB are likely to have negative impacts on CI habitats and species. The impacts especially focus on the destruction or degradation of benthic habitats or species habitats, as illustrated in the following graph:</p> <p>These impacts are due to the potential development of aquaculture sites and the potential development of MRE.</p> <p>The precise nature of the impacts generated by these projects will depend on the design and implementation methods used. Several actions allow for a link to be established with these actions with negative impacts in order to support these projects and take into account the issues related to the preservation of the marine environment in their definition (see Chapter 6).</p>	Action Group	Destruction d'habitats benthiques ou d'habitats d'espèces	Dégradation d'habitats benthiques ou d'habitats d'espèces	Destruction d'espèce	Dérangeement d'espèce	HB marin	2	1	0	0	HB littoraux	1	0	0	0	HB humides	1	0	0	0	MT	0	0	2	0	PC amphihalins	0	0	0	0	OM pélagiques	0	2	0	0	OM côtiers	0	2	0	0								
Action Group	Destruction d'habitats benthiques ou d'habitats d'espèces	Dégradation d'habitats benthiques ou d'habitats d'espèces	Destruction d'espèce	Dérangeement d'espèce																																													
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OM pélagiques	0	2	0	0																																													
OM côtiers	0	2	0	0																																													

ANALYSIS OF MEASURES TAKEN TO AVOID, REDUCE AND COMPENSATE - ENVIRONMENTAL IMPACTS

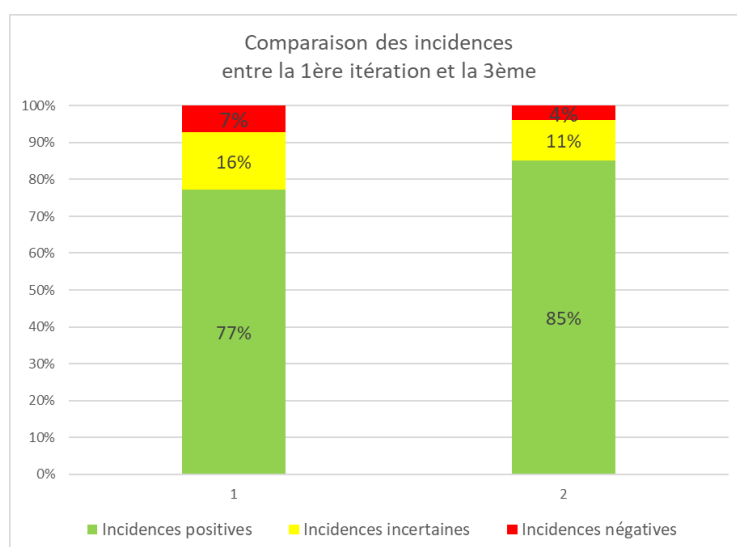
The iterative process of the SEA has made it possible to integrate reduction or avoidance measures into certain actions that initially had potential negative or uncertain impacts. In some cases, this integration has allowed the characterisation of impacts to be changed from negative or uncertain to positive, and in others it has allowed the negative impact to be reduced, although it is not possible to say to what extent. Therefore, in successive iterations of the SEA:

During successive iterations of the SEA:

- some 20 Avoid and Reduce measures were proposed for socio-economic actions with potentially negative or uncertain impacts;
- approximately half of them were included in the action plan sheets, the DIRM having justified its choice not to include the others during discussions with the evaluator (often because these Avoid and Reduce measures were already the subject of other actions, particularly environmental ones).

In addition to taking into account the Avoid and Reduce measures proposed by the evaluator, the development of the action plan can also lead to an improvement in impacts, notably with the inclusion of new actions with positive impacts.

The result of these different developments in the action plan in terms of its environmental impact is comprehensively illustrated in the graph opposite.



IMPACT MONITORING INDICATORS

The development of the monitoring framework, which, together with the action plan, forms the operational part of the SBSD, enables France to meet its obligations as regards the two EU framework directives on Marine Strategy (MSFD) and Maritime Spatial Planning (MSPD). It therefore defines the monitoring strategy to be put in place with the following objectives:

- To update and clarify the progression of the existing situation on the maritime coastline;
- To evaluate the achievement of the strategic targets of each coastline.

This joint monitoring framework for the environmental and socio-economic strategic targets is therefore, like the SBS, being developed for the first time. It integrates the MSFD's monitoring framework, which was the subject of a first version during the first cycle of this directive implemented prior to the drafting of the SBS. This first version of the "SBS" monitoring framework was finalised at the end of January 2021.

Capacity of the monitoring framework to improve the monitoring of the GES deviation

This capacity is directly linked to the improvement of the MSFD's monitoring framework, which is the subject of Annex 1 of the monitoring framework. The improvements for the second cycle proposed in this annex 1 can be set against the assessment of the GES deviation or the level of concern that may have been made with regard to the coastline's different vocation zones. This is the purpose of the table below.

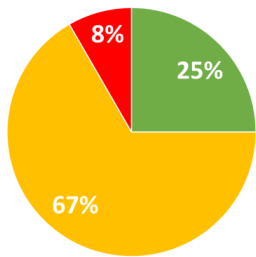
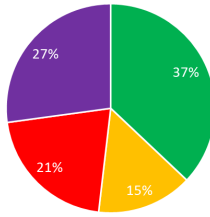
This table shows that the assessment of the GES deviation is expected to improve significantly in the next cycle, provided that the currently non-operational monitoring frameworks are effectively operational by the end of 2026.

¹ And in particular in the tables in part 3 "Summary of the systems integrated in the monitoring programme" of each monitoring programme detailed in Annex 1.

Issues	Overall assessment of all VZs	Overall reliability of all VZs	Monitoring frameworks as described in Annex 1 of the DDS
HB	Overall high GES deviation	Low	No system operational, almost 60% not operational but should be at the end of this cycle and more than 40% to be established
MT	Overall average GES deviation	Low	Approximately 70% of the systems are operational, and 30% are not operational but should be at the end of this cycle
OM	Overall low GES deviation	Low	Approximately 50% of the systems are operational, and 50% are not operational but should be at the end of this cycle
PC	Overall high GES deviation	Low	Two out of four systems are operational, the other two should be operational at the end of this cycle In addition, one out of four sub-programmes has yet to be established and will therefore not be operational for the next cycle
EC	Overall average GES deviation	Low	Two thirds of the systems are operational and one third are not operational but should be at the end of this cycle
RT	Not assessed	Not applicable	No monitoring frameworks specifically targeted at this issue
Eut	Overall low GES deviation	Good	All systems are operational
Cont	Overall low GES deviation	Average	Approximately 70% of the systems are operational and 30% are not operational but should be at the end of this cycle
ENI	Overall average GES deviation	Good	Monitoring programme fully under development
Int	Overall average GES deviation	Good	Half of the systems are operational, and the rest are not operational but should be at the end of this cycle
Hyd	Overall high level of concern	Average	40% of systems operational and 60% of systems not operational but should be at the end of this cycle
De	Overall high level of concern	Good	Two out of nine systems to be established and of the others, 50% are operational and 50% not operational but which should be at the end of this cycle
Br	Overall average GES deviation	Good	One in four of the systems to be created and of the remaining three, only a quarter are operational, and three quarters are not operational but should be by the end of this cycle

Capacity of the monitoring framework to report on the main impacts identified

The aim here is to understand **the capacity to monitor the main environmental impacts identified in the course of the analysis.**

<p>Operationality of monitoring negative or uncertain impacts</p> <p>- interpretation of monitoring indicators linked to socio-economic objectives</p>	<p>On the SA coastline, 12 socio-economic actions are likely to have negative (21) or uncertain (58) impacts. In the monitoring system, these actions refer to 36 monitoring indicators linked to the socio-economic objectives. Their operationality can be addressed according to the typology and with the following results for the 36 indicators concerned.</p> <div><p>Colorisation des indicateurs selon l'Annexe 3a : Indicateurs et dispositifs de collecte de données – Partie « activités, usages et politiques publiques »</p><p>Vert Dispositif de collecte et Producteur/concentrateur des données</p><p>Orange Au cours du premier cycle, la pertinence de cet indicateur sera étudiée au regard des conditions d'accessibilité aux données et/ou de la faisabilité de programmer un dispositif de collecte dédié ou Dispositif de collecte non renseigné</p><p>Rouge Indicateurs à définir</p></div> <div><p>Indicateurs de suivi des OSE</p><table><thead><tr><th>Color</th><th>Percentage</th></tr></thead><tbody><tr><td>Yellow</td><td>67%</td></tr><tr><td>Green</td><td>25%</td></tr><tr><td>Red</td><td>8%</td></tr></tbody></table></div>	Color	Percentage	Yellow	67%	Green	25%	Red	8%							
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Yellow	67%															
Green	25%															
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<p>Operationality of monitoring negative or uncertain impacts</p> <p>- interpretation of monitoring indicators attached to environmental targets</p>	<p>On the SA coastline, the 79 negative and uncertain impacts concern 16 out of 17 issues (excluding Co), with between 1 and 8 impacts per issue. The main issues concerned are HB, OM (8 impacts), Int, Hyd (7 impacts), Cont, Pay (6). Other issues are less affected: PC, EC, ENI, DE (5 impacts), MT, RT, Br (4 impacts), Eut (3 impacts) and Air et Ris (1 impact)</p> <p>In the monitoring system, the issues related to biocoenosis and pressures refer to 81 monitoring indicators linked to the environmental targets. Their operationality can be addressed according to the typology and with the following results for the 81 indicators concerned.</p> <div><p>Colorisation des indicateurs selon l'Annexe 3b : Focus sur les Objectifs Environnementaux (OE), les critères de Bon Etat Ecologique (BEE) et l'Analyse Economique et Sociale (AES)</p><p>Vert Indicateur sans modification à perspective 2026 ou Aucun suivi nécessaire (car existant par ailleurs)</p><p>Orange Indicateur à faire évoluer à perspective 2026</p><p>Rouge Indicateur à créer à perspective 2026</p><p>Violet Absent de l'annexe</p></div> <div><p>Indicateurs de suivi des OE</p><table><thead><tr><th>Color</th><th>Percentage</th><th>Description</th></tr></thead><tbody><tr><td>Green</td><td>37%</td><td>Indicateur sans modification à perspective 2026 ou Aucun suivi nécessaire</td></tr><tr><td>Yellow</td><td>15%</td><td>Indicateur à faire évoluer à perspective 2026</td></tr><tr><td>Red</td><td>21%</td><td>Indicateur à créer à perspective 2026</td></tr><tr><td>Purple</td><td>27%</td><td>Absent de l'annexe</td></tr></tbody></table></div>	Color	Percentage	Description	Green	37%	Indicateur sans modification à perspective 2026 ou Aucun suivi nécessaire	Yellow	15%	Indicateur à faire évoluer à perspective 2026	Red	21%	Indicateur à créer à perspective 2026	Purple	27%	Absent de l'annexe
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Purple	27%	Absent de l'annexe														

The monitoring of socio-economic actions with negative or uncertain environmental impacts seems a little more operational in terms of the ET indicators than the SEO indicators as mentioned above. Indeed, almost 40% of them (green for 30/81) have an indicator that is already operational (No change by 2026 or No monitoring required under the SBSB as it is being carried out elsewhere). However, an effort remains to be made on the other indicators (orange for 12/81): to change the existing indicators to obtain information on the finer indicators in the SBSB framework, and a little more than 20%

of indicators are to be created (red for 17/81). It should also be noted that it is not possible to comment on almost 30% of the (undefined) indicators, as they are not included in Annex 3b of the monitoring framework.

Furthermore, for MRE and aquaculture, which are the main activities affected by negative and uncertain impacts, the results are rather encouraging, with indicators being quite strongly operational, between 50% and 100%. It should be noted, however, that there are only two specific indicators for each of these activities.

2. Introduction

2.1. What is a strategic environmental assessment?

The European Directive of 27 June 2001 on the assessment of the impacts of plans and programmes on the environment² establishes the principle of an environmental assessment prior to the adoption (or "ex-ante" assessment) of those plans and programmes that are likely to have significant impacts on the environment and which set the framework for subsequent decisions. The Sea Basin Strategy Documents (SBSDs) meet this definition and must therefore be subject to such an assessment, as mentioned in Article R122-17 of the Environmental Code, which lists the various related plans and programmes.

The purpose of this environmental assessment is to ensure the relevance of the choices made with regard to environmental issues by assessing the positive and negative impacts in a predictive way, and by proposing, if necessary, measures to avoid, reduce or compensate for the negative impacts. More specifically, the approach has the following three objectives:

- assist in the development of the plan/programme by taking into account all environmental fields and identifying its effects on the environment. The aim is to integrate environmental considerations at each stage of the plan/programme development in an iterative process progressively leading to environmental optimisation of the project through the study of alternative solutions;
- to ensure the public is properly informed and to facilitate their participation in the decision-making process of the programme development;
- to inform the administrative authority that adopts the plan/programme on the decision to be taken.

While the environmental report proposed here is part of these objectives, the particular context of the preparation of the SBSBs - recalled below - gives this SEA certain special features:

(1) it concerns a strategy document in the field of sustainable development at sea, which therefore pursues environmental targets. As a result, the initial state of the environment and the objectives to be achieved in this area are inseparable from the SBSB, through its marine environmental component, constituted by the PAMM (Marine Environment Action Plan);

² Directive transposed into French law by order no. 2004-489 of 3 June 2004, decree no. 2005-613 of 27 May 2005 (and the circular of the Ministry of Ecology and Sustainable Development of 12 April 2006) and decree no. 2012-616 of 2 May 2012.

- (2) due to the integrating nature of the SBSB, which forms the implementation of two European directives, and the fact that the environmental part was drawn up earlier - the PAMM having been the subject of a first implementation cycle prior to the introduction of the SBSBs - the approach is part of an iterative consultation process, since the first cycle of the PAMM has already been submitted to the environmental authority for an opinion;
- (3) the fact that the SBSB was developed in two stages - strategic and then operational
 - each of these is subject to an environmental assessment, the operational part, which is the subject of this report, benefits from the feedback of the Environmental Authority on the strategic part;
- (4) the proposed project is focused on only one part of the SEA process, the production of the environmental report, with the other parts (e.g. consultation with the environmental authority and the public) being managed directly by the project owner.

2.2. Content of the environmental report

The content of the environmental report is set out in the Environmental Code (Article R 122-20). It includes:

- a non-technical summary;
- a general presentation indicating, in summary form, the objectives of the plan, blueprint, programme or planning document and its content, its relationship with other plans, blueprints, programmes or planning documents and, where appropriate, whether the latter have been, will be or may be subject to an environmental assessment;
- a description of the initial state of the environment in the related area, including a description of the environmental issues of the zone in which the plan, blueprint, programme or planning document will apply;
- a report of the likely significant effects of the implementation of the plan, blueprint, programme or other planning document on the environment, including, if applicable, human health, population, biodiversity, fauna, flora, soil, water, air, noise, climate, architectural and archaeological cultural heritage and landscapes. The likely significant effects on the environment are considered in terms of whether they are positive or negative, direct or indirect, temporary or permanent, short, medium or long term, or based on the cumulative impact of these effects;
- presentation of measures taken to avoid, reduce or compensate for the negative environmental impacts of the plan, blueprint, programme or other planning document;
- presentation of the criteria, indicators and methods, including deadlines, selected to verify, after the adoption of the blueprint, plan or programme, the correct assessment of the identified negative effects;

- presentation of the methods used to create the environmental impact report.

2.3. SEA methodology and process

2.3.1. The methodological focuses

There are three types, and they result both from the nature of the programme evaluated - the operational part of the SBSDB and in particular the action plan (AP) - and from considering the feedback from the Environmental Authority (EA) on the environmental assessment of the strategic part of the SBSDB.

a) A more accurate assessment of significant effects

The environmental assessment carried out by EPICES & ASCA on the strategic part of the SBSDBs identified a large number of potential impacts of this planning document but did not conclude on its ability to support the achievement of Good Environmental Status (GES) by 2026 at the latest as required by the MSFD. The opinion of the Environmental Authority on this first assessment clearly pointed out these limitations and called for progress in the accuracy of this assessment of the overall impacts of the SBSDB in terms of achieving good status. Three methodological focuses have been used in this assessment to improve the accuracy of the impact assessment in relation to the achievement of GES:

- the first is to strengthen the spatialisation of the analysis, i.e. to complete the overall assessment for the entire maritime coastline with an impact assessment for each vocation zone, defined during the first part of preparing the SBSDB;
- the second is to analyse more precisely, and also spatially for each vocation zone, the status of the various environmental issues in relation to the Good Environmental Status (GES deviation) or in terms of the level of concern if GES is not defined;
- the third is to associate a certain number of characteristics (time scale in which the impacts will appear, level of uncertainty associated with their appearance, more or less permanent/irreversible feature, etc.), with the nature of the identified impacts (positive or negative) allowing them to be better compared and comprehensively analysed.

However, even if the implementation of these methodological approaches has made it possible to improve the accuracy of the analysis, it is still methodologically difficult to conclude on the capacity of the operational part of the SBSDB to support the achievement of the GES by 2026 at the latest, given the persistence of certain limitations mentioned below.

b) A more integrated approach

³ Opinions n°2018 104, 2018 105, 2018 106 and 2018 107 of 20 February 2019.

During the preparation of the strategic part of the SBSB, the coastline stakeholders were led to question the coherence of the two types of objectives included in this planning document (environmental targets and socio-economic objectives). In some instances, they have even tried to merge the two categories of objectives in order to develop a truly integrated marine policy. However, despite the efforts made, it has not always been possible to make these objectives fully coherent and the question of the necessary trade-offs and compromises has often been postponed until the actions and their implementation criteria have been defined. The issue of the truly integrated nature of the SBSB is therefore central to the development of its operational part, and the environmental assessment of the SBSB must take this into account. Two methodological approaches were used to promote this more integrated approach:

- the first is to try to analyse the overall impact of the SBSB's actions, whether these actions are environmental or socio-economic in nature. In order to do this, it is necessary not only to analyse the actions according to the objectives to which they refer (environmental or socio-economic), but also to look at (1) the way in which the actions have been organised in a combined manner in the AP, and (2) the links that exist between actions of a different nature - for example, an environmental action may "offset" a socio-economic action in terms of impact;
- the second was, in this environmental assessment, to try to use some of the results of other analyses carried out simultaneously by the group of selected service providers to support the development of the operational part of the SBSB (cost/effectiveness analysis and analysis of the economic and social impact of the proposed actions)⁴. However, this use was reduced by the narrower scope of these other analyses, which were only requested on the environmental actions of the SBSB.

c) A more iterative process

The aim of the environmental assessment is to integrate environmental considerations at each stage of the plan's development in an iterative process progressively leading to environmental optimisation of the project. In the environmental assessment of the strategic part of the SBSB, this iterative process was relatively limited due to a particularly tight timeframe. In its opinion on this first evaluation, the EA recommends improving this iterative nature. Two methodological approaches were used for this purpose:

- on the one hand, a process providing for three successive iterations, each including an impact assessment and proposals for improving the way in which environmental issues are taken into account in the proposed actions (Avoid and Reduce measures);
- on the other hand, from the first iteration onwards, tools and methods for representing impact analyses (Excel grids, maps, etc.) were developed, which made it possible to (1) discuss the impact assessment of their action programme with the coastlines, and (2) progressively integrate the programme's changes into the same representation methods, which has

⁴ The summary results of these different analyses carried out simultaneously with this SEA are provided in Annex 6 of this environmental report.

saved time in the final iterations, which are often constrained by the final deadline.

2.3.2. A four-phase SEA process

First, it should be recalled that this SEA took place in a very specific context: which was the global health crisis linked to Covid19. The constraints linked to this crisis, in particular the deterioration of working conditions and the need to adapt the consultation processes, greatly disrupted its progress. The initial timetable for the project was rescheduled to take the crisis into account, and it took 16 months to complete instead of the 10 months initially planned.

Four phases, of widely varying duration, can be distinguished in the process of this SEA:

- a scoping phase, mainly concerning the spatial analysis of the status of the various environmental issues with regard to the GES and the development of impact analysis grids and tools, took place over approximately 6 months (October 2019/March 2020);
- a first iteration of the impact analysis of the actions proposed in the first version of the action plan took place between April and September 2020;
- a second iteration of the impact analysis, incorporating changes in the proposed actions between the first and second versions of the action plan, took place between October and December 2020;
- a third and final iteration based on the final version of the action plan was carried out in January 2021, at the same time as the environmental report was being finalised.

2.3.3. The main limitations encountered

Four main limitations can be highlighted in relation to this environmental assessment:

- the first concerns the existing uncertainties concerning, on the one hand, the assessment of the good status of many environmental issues and, on the other hand, the precise knowledge of the pressures exerted on the marine environment by many human activities (for example, removals linked to foot fishing or recreational fishing);
- the second limitation is that it is not possible to 'quantify' the overall impact of the proposed action plan, as the different impacts can be counted and compared according to various criteria, but in no way scaled in terms of scope in relation to each other. Added to the first, this second limitation explains in particular the difficulties encountered in reaching a precise conclusion as to whether or not the action plan will restore the GES by 2026 at the latest;
- the third limitation that can be listed results from the context of the health crisis in which the environmental assessment took place, which greatly hindered the iterative process which was a central methodological focus of the approach. Indeed,

the disruptions linked to the crisis led to (1) an extension of the deadlines for drawing up the content of the action plans, thereby postponing the impact analyses that could be carried out, and leading to a very significant 'compression' of the deadlines for the second and third iterations of the analysis, and (2) a deterioration in the working conditions of the DIRM teams, therefore limiting the time that could be devoted to considering the analyses carried out within the framework of the successive iterations of the SEA;

— a fourth and final limitation is also linked to the context of the health crisis, which has profoundly affected many socio-economic activities in coastal areas, without it being possible to know to date whether this will constitute lasting disruption or whether the situation will return to that of before the crisis. As a result, the elaboration of a trend scenario in the absence of a SBSD, which could serve as a reference for the impact analysis, an already particularly complex exercise, was made impossible by the crisis context.

3. Brief presentation of the SBSDs and their development context

3.1. Origin and development of the SBSDs

With its maritime and coastal areas, France has a remarkable natural heritage and a significant potential for socio-economic development. The sea and coastline are already subject to numerous uses, but they are also subject to numerous pressures due to climate change, land-based pollution or the impact of activities. In order to ensure good environmental status and better economic and social development of the sea and coastline, a national strategy was adopted in February 2017.

For each of the maritime coastlines in mainland France and for each of the overseas maritime basins, a planning document - the strategy document for the coastline or overseas maritime basin - must specify the conditions for implementing the national strategy, taking specific local conditions into consideration. It will include spatial planning in the form of a vocation map of maritime spaces. In mainland France, the sea basin strategy document is drawn up by the State in consultation with maritime and coastal stakeholders within the sea basin council. It is subject to prior consultation with the public.

The establishment of sea basin strategy documents is part of the implementation of the two framework directives "marine environment strategy" and "maritime spatial planning" at European level.

An initial consultation with the public related to the proposed future vision of the coastline, prior to the definition of the sea basin strategy. It took place for two months from 26 January 2018. A further consultation phase is planned for 2021.

The four maritime coastlines in mainland France



The legal and political framework of the Sea Basin Strategy Document

THE NATIONAL AND COMMUNITY FRAMEWORK

France ranks first among nations for the richness of its marine ecosystems. The excellence of its oceanographic research is recognised worldwide, certain industrial sectors such as shipbuilding, freight transport and water sports are at the cutting edge, its flag is recognised for the quality, technicality and reliability of its ships and crews, its national navy is present on all seas, and changes or drives are being initiated for historical or emerging sectors. Finally, its expertise in the management of natural marine protected spaces is widely recognised around the world.

Since 2007, following the Grenelle Environment Forum and the "Grenelle of the Sea" Forum, France has been committed to a maritime policy aimed at integrated management of the sea and the coastline. It aims at both the sustainable development of maritime and coastal activities and the preservation of the marine environment, as well as a better link between land and sea. The Environmental Code provides the legislative framework for the implementation of this policy in Articles L219-1 to L219-18. In particular, it establishes a national strategy for the sea and the coastline and its adaptation in strategy documents for the coastline and maritime basin.

The national strategy for the sea and the coast is responsible for providing a reference framework for public policies concerning the sea and the coast. It is linked in particular to the National Strategy for the Ecological Transition to Sustainable Development, the National Research Strategy and the National Biodiversity Strategy, to which it contributes and for which it is the reference for the sea and the coast.

The national strategy for the sea and the coast (adopted by the decree of 26 February 2017) sets four **long-term**, complementary and inseparable **objectives**:

- ecological transition for the sea and the coast;
- development of the sustainable blue economy;
- good environmental status of the marine environment and preservation of an attractive coastline;
- France's influence as a maritime nation.

At a European level, considering that the seas and oceans are drivers of the European economy through a strong potential for innovation and growth, the EU Member States have agreed to promote an **integrated maritime policy**. It aims to address maritime issues in a more coherent way and to strengthen coordination between the different areas of activity. The aim is to promote "blue growth", i.e. sustainable growth, in the marine and maritime sectors as a whole. It is part of the Europe 2020 strategy for **smart** (knowledge and innovation based), **sustainable** (more resource efficient, greener and more competitive) and **inclusive** (high employment rate and social and territorial cohesion) **growth**.

The European Integrated Maritime Policy encourages authorities at all levels (international, national, regional and local) to exchange data and cooperate rather than working in isolation on different aspects of the same problem and establishes close cooperation between policy makers in different sectors and at all levels of decision-making. It is based in particular on two framework directives:

- **The Marine Strategy Framework Directive** (Directive 2008/56 of 17 June 2008), which aims to restore or maintain the good environmental status of the marine environment by 2020. For example, Member States must draw up Marine Environment Action Plans to be reviewed every six years.
- **The Maritime Spatial Planning Directive** (Directive 2014/89 of 23 July 2014) which establishes a framework for maritime planning and requires Member States to ensure coordination of different activities at sea. Thus, by 2021, they must develop plans that identify the spatial and temporal distribution of relevant, existing and future activities and uses in their marine waters.

The sea basin strategy documents are the adaptation of these two directives. As such, they include the elements of maritime spatial planning and the marine environment action plan.

THE COASTLINE

The **sea basin strategy document** explains and completes the guidelines of the national strategy for the sea and coastline with regard to the economic, social and ecological issues specific to the coastline. It includes proposals for the development of activities and the regulation or reduction of human pressure on marine and coastal environments. For the first time, a set of maps summarises the issues for the general public and defines the sectors to be picked for the establishment of activities and for the preservation of the marine and coastal environment. The set aims to coordinate the

activities and to prevent conflicts linked to the diversification and densification of uses of the sea and the coast.

Given the **interaction between land and sea**, not everything is solved at sea. Catchment areas and land areas have an influence on maritime and coastal areas through issues of water quality, land use, major urban, tourist and agricultural developments, projects for activities at sea, etc. The sea basin strategy documents are intended to provide guidelines for everything that has an impact on the sea and the coastline in the coastal regions. One of the challenges is to link them with land-based planning, the most important of which are the Water Development and Management Master Plans (SDAGE), the Regional Plans for Sustainable Development and Territorial Equality (SRADDET), the Territorial Coherence Plans (SCOT) and the Local Urban Plans (PLU).

The sea basin strategy document is subject to an **obligation to take into account** any land project, plan or programme that has an influence on the sea, and to be **compatible with** urban planning documents (coastal SCOTs, PLUs or equivalent documents). For projects, plans and programmes that would be located exclusively at sea, this obligation becomes a requirement of **compatibility** in all cases.

From a formal point of view, the Environmental Code stipulates (Articles R219-1-7 to R219-1-14) that the sea basin strategy document includes four parts:

- the existing situation, the issues and a vision for the future of the coastline desired in 2030; (part 1)
- the definition of strategic targets from an economic, social and environmental point of view and the associated indicators; they are accompanied by a vocation map which defines, within the maritime areas, consistent zones with regard to the issues and general objectives assigned to them; (part 2)
- the methods for evaluating the implementation of the strategy document; (part 3)
- the action plan. (part 4)

Parts 1 and 2 of the Sea Basin Strategy Document constitute the "**sea basin strategy**". The latter was developed in 2018 and was subject to an initial strategic environmental assessment. Following consultations, this sea basin strategy was officially adopted in each coastline on 14 October 2019.

Parts 3 and 4, i.e. the **monitoring framework allowing** the objectives and the **action plan to be assessed in terms of compliance**, which sets out all the concrete and operational actions to be implemented at national and local level to meet the strategic targets set beforehand, constitute the **operational part of** the SBS. The latter was developed between July 2019 and January 2021 and is the subject of a second Strategic Environmental Assessment of the SBS. **This report concerns this second SEA and therefore focuses on the operational part of the SBS.**

The process of developing SBSDs

At a national level, coordination is dealt with by the Delegation for the Sea and the Coast (DML) and the Directorate of Water and Biodiversity (DEB), departments of the Ministries of the Sea and of Ecological Transition.

At local level, the integrated maritime policy focuses on all institutional partners on land and at sea, and coordination of administrative structures and coordination bodies is necessary. This is handled by two coordinating prefects: the maritime prefect and the regional prefect coordinating the coastline.

This prefectural partnership is based on a coastline administrative commission, the composition of which is set by interprefectural order 49/2016 of 9 June 2016, and on the sea basin council (CMF), a consultation body provided for by article L.219-6-1 of the Environmental code, which each coastline has had since 2010. The CMF's mission is to facilitate the coordination of the use, development, protection and enhancement of the coastline and the sea, in consultation with all governance stakeholders.

The drafting of the SBSD is therefore part of a maritime and coastal spatial planning methodology. The Interregional Directorate for the Sea (DIRM) deals with managing the project.

The process of developing the SBSD action plan

As the process of developing the environmental actions and socio-economic actions differs in some respects, both in method and timing, they are described in turn below.

First of all, the main stages in the development process of **environmental actions** can be characterised as follows:

- an inventory of existing actions that already contribute to the achievement of the SBSD objectives, actions under the State but also local authorities and other partners, and the implementation of European and international policies. The Directorate of Water and Biodiversity (DEB) contributed to this inventory by drawing up a list of national and international actions, communicated to the coastlines in May 2019⁵;
- analysis of the sufficiency of these existing actions in relation to the achievement of the strategic targets set out in the first part of the SBSD. This analysis, carried out in each coastline by experts, does not constitute a robust assessment⁶ of the capacity of existing actions to achieve the objectives set, and generally concludes that it is necessary to strengthen existing actions with new ones; As a result of this analysis, the coastlines proposed new actions;

⁵ This list only covers actions adopted as of 2016. It therefore completes the one carried out in the framework of the first cycle of implementing the MSFD.

⁶ Which would have been methodologically very difficult to achieve anyway.

- proposal of new actions by the "State" (MET and OFB) on the basis of (1) the harmonisation of sufficiency analyses carried out in the coastlines, (2) proposals for new actions coming from the coastlines, and (3) the expertise of the DEB, OFB and other central administration directorates;
- consultation meetings on these proposals for new actions, involving the DIRMs, the DREALs, the MET departments and associated experts (OFB in particular). Six one-day national meetings were held from November 2019 to January 2020;
- a coastline consultation phase was then planned in the process, which was largely disrupted by the onset of the health crisis. Feedback from the coastlines on this first version of the environmental action sheets, which may include proposals for new actions, was provided in spring 2020;
- a national harmonisation was carried out in May-June 2020 and validated by the Blue National Steering Committee on 1 July 2020;
- following this national harmonisation, a new version of the environmental action plan was sent by the MET to the coastlines in July 2020, accompanied by a draft financial model and decision-making tools (cost effectiveness analysis in particular); the objective of the financial model was to identify the costs, pilots and potential funders to ensure the operability of the actions and to retain only the actions with a pilot and financing;
- a new consultation phase was then carried out on the coastline and led to a return to the DEB in October/November 2020;
- a second and final national harmonisation was carried out in November 2020 and validated by the Blue National Steering Committee in December 2020.

Then for the **socio-economic actions**, the development process can be described in the following steps:

- work by the State departments responsible for maritime and coastal issues was carried out in 2019 to identify courses of action. From the outset, these considerations took account of the opinions of the authorities and the public expressed in the consultations relating to the development of the sea basin strategy. These exchanges made it possible to refine the initial action proposals by comparing them with the projects carried out locally;
- development of action proposals by the coastlines, in consultation with socio-economic stakeholders and associations. The schedule of this first proposal differs widely depending on whether or not the coastlines had time or not to carry out the necessary consultation before the health crisis began. As a result, the drafting of this first proposal for socio-economic action sheets was spread out between March 2020 and July 2020 depending on the coastlines;
- at the request of the coastlines to pool certain actions, particularly in certain areas that also fall under national jurisdiction, national consultation meetings were organised by the DML in July 2020 and led to the production of national action sheets in autumn 2020;

— a second consultation phase took place with the stakeholders, according to the methods specific to each coastline, from October to December 2020.

This time lag for the production of environmental and socio-economic actions, which varies depending on the coastline, has led to successive iterations of the SEA being carried out at different progress stages for the two types of actions.

Finally, **the integration of the various actions into a single action plan** was mainly the responsibility of the DIRMs, as the national steering committees did not deal with this issue much. This integration work suffered from the time lag between the development of the environmental actions and the development of the socio-economic actions, the latter having been stabilised later.

3.2. The particular context of the South Atlantic coastline

The construction of the SBSD SA action plan started in April 2019. A first inventory of existing actions contributing to the SBSD objectives has been carried out:

- at national level on the basis of the measures of the Marine Environment Action Plan (PAMM 1st cycle);
- at the Bay of Biscay level (for the environmental part) to identify existing measures and gaps based on local, regional and national policies;
- at the SA coastline (for the socio-economic part) for existing measures carried out by the State in the coastline, the region, the department and the communities.

Once the existing actions were identified, the analysis of sufficiency with regard to the strategic targets was studied by experts between October 2019 and January 2020. New actions were then proposed to complement the existing ones.

Simultaneously, a consultation was carried out by sending out a questionnaire to communities, mixed unions, environmental protection associations and CMF stakeholders, then by organising 4 participatory territorial workshops bringing together the stakeholders between November 2019 and January 2020. A workshop in each region of the South Atlantic coastline (Urrugne, Capbreton, Gujan-Mestras, Rochefort) took place from 13 to 16 January 2020.

A first summary compiling all these reflections on the action plan was presented to the CMF's Specialist Commissions in February 2020. During the health crisis (COVID-19), consultations continued by video conference with the stakeholders.

In addition, national meetings were held with the competent administrations for each topic (environment, ports, energy, etc.) to identify actions common to each coastline that could be carried out on the various socio-economic topics, in order to find coherence in all the policies carried out at sea and on the coastline.

The first action plan was presented to the stakeholders of the CMF commissions in the summer of 2020. Exchanges continued during the summer of 2020 and throughout September

with the members of the Standing Committee to refine the proposals. The action plan was presented to the Sea Basin Council on 14 December 2020.

3.3. The South Atlantic coastline action plan

This document consists of three volumes.

The first volume is divided into three chapters. The summary is presented below:

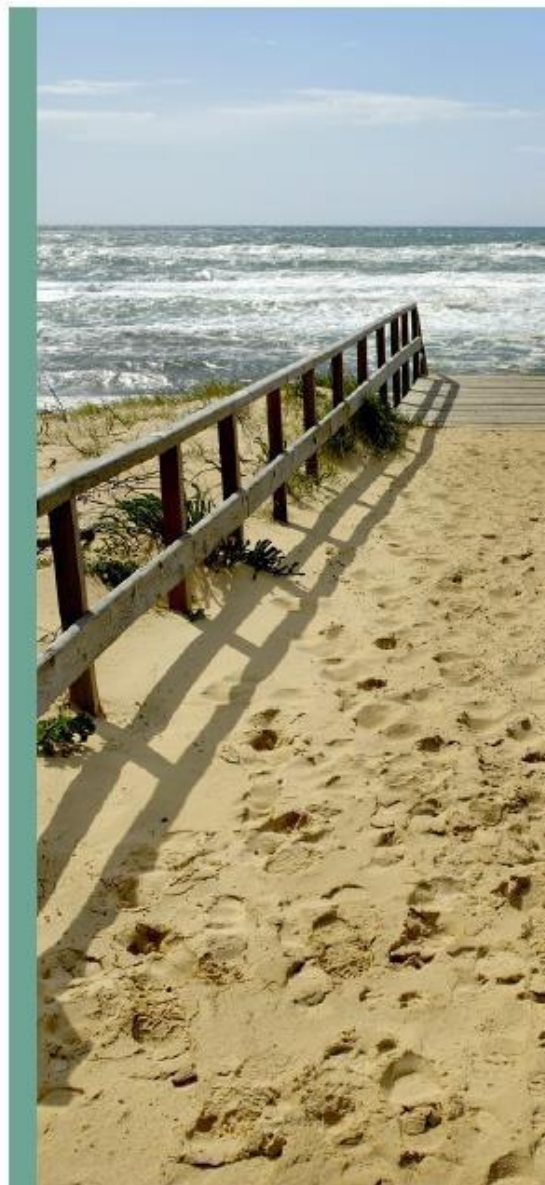


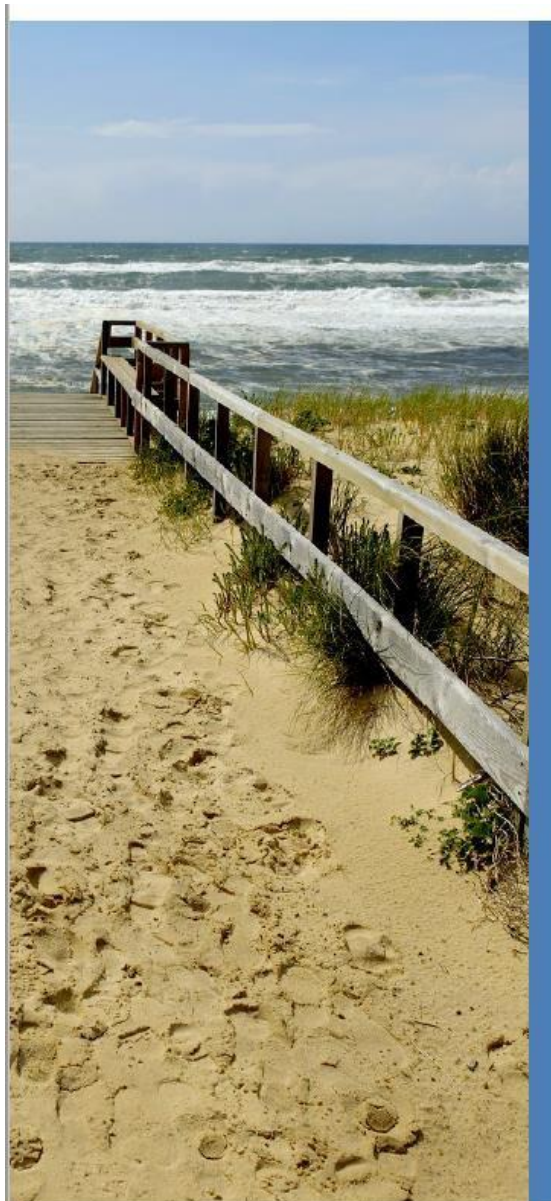
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3.4. The challenges of linking with other coastline plans and programmes

3.4.1 THE PLANS AND PROGRAMMES WITH A "FUNCTIONAL" LINK: SBSD/SDAGE LINK

WATER DEVELOPMENT AND MANAGEMENT MASTER PLAN (SDAGE)

The Water Development and Management Master Plan (SDAGE) is the tool for implementing the Water Framework Directive (WFD), which aims to achieve or maintain good surface and groundwater status throughout Europe. As mentioned above, the SBSD is the implementation document for the MSFD, which aims to achieve or maintain good environmental status of marine waters on European territory, and which is implemented in France through the Marine Environment Action Plans (PAMM) initiated in 2012 and integrated into the SBSD from 2018.

These two directives therefore have a common objective of achieving good status in the waters to which they apply, waters which partially overlap. Furthermore, analysis of the good status of marine waters requires an analysis of the pressures that are exerted on them, some of which are linked to "terrestrial" surface and groundwater (land-based inputs of physical or biological contaminants, freshwater flow, etc.). Linking these two directives is therefore a key issue, which the EC insisted on in its communication of 14 November 2012 on an "Action Plan to safeguard Europe's water resources" (the so-called Blueprint).

At national level, this link was the subject of a government instruction dated 17 February 2014, then a technical note from the DEB on 24 November 2020, which replaces the February 2014 circular by taking into account the new issues arising from the entry into force of the law for the recovery of biodiversity, nature and landscapes of 8 August 2016 and the integration of the Marine Environment Action Plans (PAMM) into the sea basin strategy documents (SBSD).

This technical note specifies in particular:

- (1) the governance methods to promote the coherent implementation of the two directives:
 - reciprocal participation of the decentralised departments and the competent authorities in the basin and coastline administrative commissions;
 - active participation of the DREALs and Water Agencies in the technical secretariats responsible for drawing up the SBSDs and of the DIRMs in the technical secretariats responsible for drawing up the SDAGEs;
 - reciprocal information of the Basin Committees (BC) and the Sea Basin Councils (CMF) on the SDAGEs and SBSDs being prepared;
 - linking the schedule for the different consultation stages of the assemblies and making the information available to the public.

(2) coordination during the development of the implementation elements of the two directives:

- linking the SBSB monitoring framework and the SDAGE monitoring programme;

- linking the environmental component of the SBSBs' strategic targets and action plans with the guidelines of the SDAGE(s) and their programme of measures. This link involves (i) the partial coupling of the timetables for the SBSB action plans, the SDAGE(s) and their programmes of measures, (ii) the categorisation of pressure sources on the marine environment targeted by the SBSBs' strategic targets and action plans and the definition of the associated measures and actions in the programmes of measures of the SDAGE(s) and the SBSB action plans. Three types of pressure source were therefore defined: sources of pressure giving rise to measures that are only detailed in the SDAGE(s) and their programmes of measures (e.g. nutrient inputs from catchment areas), sources of pressure giving rise to actions that are only detailed in the SBSB action plans (e.g. underwater noise disturbance linked to maritime transport), sources of pressure giving rise to measures and actions that must be detailed simultaneously in the SBSB action plans and in the SDAGEs and/or their programmes of measures (e.g. loss of functional sea bird habitats in coastal wetlands), (iii) the setting of additional targets associated with the SBSBs' environmental targets and concerning the SDAGE(s);

- linking the environmental component of the status of the existing SBSBs and the WFD situational analysis: defining a harmonised method for the initial MSFD assessment and the WFD situational analysis, which will be used, among other things, to prepare for the third cycle of MSFD assessment from November 2022.

The different linking elements detailed in this technical note have had practical results on the development of the operational part of the SBSB and its strategic environmental assessment:

(1) in terms of the schedule, the date of referral to the EA has been set at 31 January 2021 in order to allow a joint consultation period for the operational part of the SBSB and the SDAGE(s);

(2) in terms of process, the Water Agencies have been involved in the various national meetings of the environmental action development process described above (notably Blue GT).

At the South Atlantic coastline level:

Law No. 2016-1087 of 8 August 2016 for the recovery of biodiversity introduced a principle of reciprocal compatibility of the SDAGE provisions with the environmental targets of the sea basin strategy document (SBSB), codified in Articles L212-1 and L219-9 of the Environmental Code. To meet this principle of compatibility, the Adour-Garonne basin SDAGE 2022-2027 identifies provision B36 to ensure compatibility between the South Atlantic SBSB and the SDAGE. Similarly, the South Atlantic SBSB action plan includes the cross-cutting governance action codified 15-AT-A01 "Promote the implementation of SDAGE and SAGE measures aimed at improving the quality of coastal waters, to ensure that this principle of reciprocal compatibility is also respected."

In addition, the same table is annexed to both documents (South Atlantic SBSB and Adour-Garonne SDAGE). It presents the link between the Adour-Garonne SDAGE 2022-2027 and the South Atlantic SBSB through a connection between the SDAGE provisions and the SBSB descriptors and strategic environmental targets.

One or more of the SDAGE provisions can indeed be "associated" with each general strategic environmental target of the SBSB SA, for each descriptor.

It should be noted that almost 50% of the SDAGE provisions are very directly associated with the SBSB strategic environmental targets.

The environmental targets of the following descriptors (descriptor 1 biological diversity for marine mammals - turtles, descriptor 4 food webs and descriptor 11 energy introduced into the sea (noise)) do not have associated SDAGE provisions, being outside the SDAGE's field of competence.

In order to respect this principle of compatibility, in addition to the timetables, the development processes have been coordinated at the South Atlantic coastline level:

- through participation, in the development work, of joint members belonging to both the Basin Committee (BC) and the South Atlantic Sea Basin Council (CMF), and their respective bodies (Coastal Territorial Commission for the Adour-Garonne Basin, Joint Commission for the Land-Sea Link and Standing Committee for the SA CMF)

- through the reciprocal participation of the decentralised departments and the competent authorities in the basin and coastline administrative commissions

- in advance of these administrative commissions and meetings of bodies and intensively in 2019-2020, there was on average one meeting per quarter of the Technical Secretariat in charge of drawing up the SBSBs with the Basin Technical Secretariat (AEAG and Occitania Basin DREAL) in charge of drawing up the SDAGEs, in order to jointly examine the drafting of SBSB actions and additional targets, and of the SDAGE provisions concerned, in particular on issues relating to waste, nutrient inputs, organic matter, contaminants or freshwater inputs, diadromous migratory fish, physical disturbance of habitats in the overlap area of the two documents, between the baseline and 1 nautical mile.

MARINE AGGREGATES GUIDANCE AND MANAGEMENT DOCUMENT (DOGGM)

The implementation of the Guidance and Sustainable Management Documents for Marine Aggregates (DOGGM) forms the adaptation of the marine part of the strategy for the sustainable management of land and marine aggregates and quarry materials and substances.

The DOGGM is drawn up for 12 years, with an implementation evaluation and assessment after 6 years, and covers the South Atlantic maritime coastline.

This document has special status in relation to the SBSB as it provides a framework for the management of marine aggregates extraction. It is part of the maritime spatial planning process and contributes to the SBSB objectives. One action of SBSB SA is the development of the DOGGM. It specifies that the latter should seek to reconcile

marine aggregates extraction activity with the environmental and socio-economic objectives of the SBS. Its development will need to be based on appropriate governance (COPIL, COTECH) to ensure the preservation of the marine environment, the interests of the sector and cohabitation with the other activities present. These bodies will include the associated partners identified in this action sheet: DREAL NA, DDTM, IFREMER, UNICEM, Gironde estuary and Pertuis sea Marine Nature Park, Monitoring Centre of the New Aquitaine coast depending on the sector.

3.4.1 THE PLANS AND PROGRAMMES WITH A "STRUCTURING" LINK

REGIONAL PLAN FOR SPATIAL PLANNING, SUSTAINABLE DEVELOPMENT AND EQUALITY (SRADDET)

The **regional plans for spatial planning, sustainable development and equality (SRADDET)** are plans that must set objectives and general rules in all of the following areas: spatial balance and equality, economical management of space, opening up rural areas, transport infrastructure and intermodality, habitats, energy management and development, combating climate change, air pollution, biodiversity protection and restoration, and waste prevention and management.

The SRADDET⁷ is an enforceable document with a hierarchy of compatibility with the SDAGE and consideration with the SBS. It is in this capacity that the SBS is cited in the New Aquitaine SRADDET.

The New Aquitaine SRADDET 2019-2025 was approved by the regional prefect on 27 March 2020. It is structured around four priorities: 1. Living well in the territories, 2. Combating land abandonment and gaining mobility, 3. Producing and consuming differently, 4. Protecting our natural environment and our health. It is broken down into 80 objectives, some of which echo the SBS objectives, in particular: objective 6 on the sustainable development of the fishing economy, marine cultures and maritime aquaculture, objective 25 on the port strategy, objectives 38 to 42 on the preservation of natural environments and water resources, objective 43 on the reduction of energy consumption and GHG emissions, objective 63 on coastal risks and the recovery of natural coastal areas.

LARGE PORT STRATEGIES

The Large Port Atlantique de Bordeaux

The Strategic Plan for the period 2015-2020 was adopted in November 2015. It is divided into three main areas: 1-Logistics and intermodality; 2-Deconstruction, ship maintenance, new renewable energies; 3-Ready-to-use port land, natural areas. The Bordeaux Large Marine Port has launched a review of its strategic project. The main

⁷ which absorbs the Regional Waste Prevention and Management Plan (PRPGD), the Regional Climate Air and Energy Plan (SRCAE), the Regional Ecological Coherence Plan (SRCE), the Regional Infrastructure and Transport Plan (SRIT), the Regional Intermodality Plan (SRI)

guidelines that will structure this roadmap will focus, in particular, on the development of land, the energy transition and the circular economy.

The Large Port Atlantique La Rochelle

The 2020-2025 strategic project of the Port Atlantic La Rochelle is structured around 3 guidelines: 1/ For ever more efficient logistics; 2/ Towards zero carbon; 3/ Innovation at the heart of the action. To achieve these objectives, several actions of the port strategy have synergies with the SBSB action plan, such as the one relating to improving the quality of services (action 1), the one linked to the production of renewable energies in the port and maritime domain (action 12), the one on the preservation of coastal biodiversity (action 15) and the one linked to digital innovations for the improvement of efficiency (action 22).

In terms of the SBSB, the socio-economic strategic target in relation to Ports and Transport aims to ensure the competitiveness and complementarity of ports, improve their service and promote modal shift. Three new actions are included to meet this objective:

- 03-POR-A01: Develop and transform ports to serve the territorial economy by including them in the ecological, energy and digital transitions;
- 03-POR-A02: Develop flows by better connecting ports;
- And 03-POR-A03: promote synergies between the region's ports and the link with their territory.

The strategic projects of the ports could be centred on the subject of these actions in particular.

OTHER STRUCTURING DOCUMENTS

Flood risk management plans (PGRI)

The flood risk management plans (PGRI) initiated by the European Directive on the assessment and management of flood risks, known as the "flood directive" and transposed into French law as part of the law of 12 July 2010 on the national commitment to the environment, have been set up in each major river basin. For the sake of consistency, the implementation of the Flood Directive (FD) is subject to a review every 6 years, like the SDAGE(s), and its schedule has been adapted to that of the WFD so that these two directives benefit from a certain number of steps and shared resources. Therefore, the Adour-Garonne PGRI 2016-2021 project is coming to the end of its life and the one for the 2022-2027 cycle is being drawn up. It is subject to environmental assessment. The PGRI must take into account the SBSB and be compatible with its objectives.

Strategies or plans that are coming to an end

Other strategies or plans are coming to an end. This is the case in particular for:

- the migratory fish management plan (PLAGEPOMI) 2015-2019 Adour, coastal waterways and the migratory fish management plan 2015-2019 Garonne, document extended until December 2021;

- the regional integrated coastline management strategies: The Aquitaine coastline has a regional coastal erosion risk management strategy which was finalised in 2012. It is the result of a shared reflection between the State and the coastal communities, united within the Coastal Public Interest Group.
- the regional economic development, innovation and internationalisation plan (SRDEII) New Aquitaine, adopted in 2016.
- the regional tourism and leisure development plans (SRDTL) New Aquitaine 2018-2023.

Regional aquaculture development plans (SRDAM)

Finally, it should be noted that the regional aquaculture development plans (SRDAM) of the former Poitou-Charentes and Aquitaine regions must be compatible or made compatible with the SBSO objectives (art. L.219-4 of the EC). The SRDAMs of the region were developed in 2012, for the period 2012-2015; a review of the SRDAMs is to be carried out. These reviews will be used to define the new aquaculture vocation maps, which will correspond to the new SRDAMs, and which will be integrated into the aquaculture planning of the sea basin strategy document. These SRDAMs must therefore evolve to meet national aquaculture production objectives while respecting the environmental targets set by the sea basin strategy document. In this respect, Action 02-AQU-A01 of the SBSO action plan aims to start the review of the SRDAMs and to prepare for the integration of aquaculture planning in the next SBSO cycle.

4. The environmental issues of the coastline

4.1. Structure of the issues to be considered

The sources used to check the environment's initial state and identify the environmental issues to be taken into account are mainly derived from the scientific presentation carried out in the context of the implementation of the second cycle of the PAMMs (initial assessment of the state of the marine environment and analysis of the environmental impact of anthropogenic activities). Four main sources, partly annexed to the SBSD, were used within this presentation:

- the scientific and technical summary of the initial assessment of the environmental status of marine waters with regard to the 11 descriptors of the MSFD (Annex 2 to Part 1 of the SBSD);
- the sheets associated with the environmental targets (Annex 6c to Part 1 of the SBSD);
- the map of environmental issues, including the mapping of ecological issues as well as the description of the sectors with identified ecological issues (Annex 5c to the Part 1 of the SBSD);
- the environmental report of the strategic environmental assessment of sea basin strategies carried out in 2018 (hereafter referred to as "SEA1").

As the notion of environmental issues in the sense of the SEA is broader than the notion of ecological issues, we have structured the issues established during the SEA1, considering 17 environmental issues which are divided into three categories and are listed in the table below:

Issue category	Acronym	Environmental issue	Connection to MSFD descriptors	Typical elements
Issues related to the components of the marine environment	HB	Benthic habitats	D1-HB	Quality of major biogenic, rocky, sedimentary deep, wetland, habitat types
	MT	Mammals and turtles	D1-MT	Species distribution and abundance: home range of sedentary groups of bottlenose dolphins, seal colonies, feeding areas, other cetaceans
	OM	Sea birds	D1-OM	Species distribution and abundance: nesting, feeding areas, colonies, wintering sites of sea birds and coastal birds, areas of maximum density, functional areas
	PC	Fish and cephalopods	D1-PC	Species distribution and abundance: functional fishing areas (spawning grounds, nurseries), localised populations (benthic invertebrates, elasmobranchs), concentration and migration areas for diadromous fish
	EC	Commercial species	D3	Stock status of commercially exploited fish and shellfish species
	RT	Food webs	D4	Trophic balance
Issues related to pressures on the marine environment	ENI	Non-indigenous species	D2	Non-indigenous species that are invasive or disrupt ecosystems
	Eut	Eutrophication	D5	Human-induced eutrophication
	Int	Seabed integrity	D6	Integrity of the seabed and artificialization of the coastline
	Hyd	Modification of the water conditions	D7	Hydrographical conditions
	Cont	Chemical and biological contamination	D8 and D9	Chemical contaminants in the environment, phycotoxins, microbiological contaminants
	De	Waste	D10	Amount of floating, coastal, seabed, ingested waste and micro-waste
	Br	Noise	D11	Level of noise disturbance
Other societal issues	Pay	Landscapes and underwater landscapes	Not relevant	Elements of coastal (lighthouses, classifications) and underwater landscapes
	Air	Air quality	Not relevant	Greenhouse gases, air pollutants
	Ris	Natural and human risks	Not relevant	Climatic, natural and industrial risks
	Co	Knowledge	Not relevant	Production of knowledge on environments, species and socio-economic activities

To complete the initial SBSD environmental assessment, the initial state of the environment detailed below will seek to further spatialise the components of the 17 environmental issues. For this purpose, a methodology based mainly on the

SBSD annexes, and applicable zone by zone, was developed in order to differentiate the deviation from good environmental status (GES) by zone⁸.

— In the case where the GES is assessed at coastline level (whole or part), two inputs allowed the GES deviation to be spatialised:

- the distribution of habitats/species of concern, specific to each area (in the case of: HB, MT, OM, PC, EC),
- the existence of spatialised maps of the results enriching the GES (in the case of: Eut, Cont).

— In the case where the GES could not be assessed, the choice was made to define a "level of concern" based on the distribution of anthropogenic activities, which makes it possible to: either qualify the level of pressure exerted by anthropogenic activities on the issue (in the case of: ENI, Art, Hyd, De, Br, Air, Ris), or to assess this level on the basis of elements which are conducive to the issue (in the case of: Pay, Co).

4.2. Issues related to the components of the marine environment

The SA coastline corresponds to the southern part of the Bay of Biscay Marine Sub-Region (MSR) and covers 7 vocation zones⁹.

The SA coastline is characterised by:

- To the north of the Gironde estuary, the coastline of the Poitou-Charentes region is marked by the presence of grasslands and wetlands on the land, and of inlets and islands on the sea;
- To the south of the Gironde estuary, a coastline marked by a coastal forest of dunes and sandy foreshores, and by inland wetlands (Medoc and Landes lakes) and the Arcachon Bay.
- The Basque coast has strong special features with specific rocky habitats. The coastline's seabed is characterised by:

- The continental shelf which has a gentle slope with a few irregularities and depths ranging from 0 to 200 metres; it narrows progressively towards the south of the coastline (more than 200 km to the north compared with 50 km to the south);
- The continental margin, which takes the form of a steep bank allowing depths of up to 4,000 metres to be reached in just a few dozen kilometres, with numerous underwater canyons;

⁸ Annexes 2 and 6c to the SBSD are the only studies available to date that have sought to accurately assess the good environmental status of the 11 MSFD descriptors.

⁹ Gironde Estuary and the Pertuis Sea Marine Nature Park, Aquitaine Sandy Coast, Arcachon Bay Marine Nature Park, Basque Rocky Coast, Adour Estuary and the Gouf de Capbreton, the continental shelf, the continental slope, the abyssal plain,

- The abyssal plain, beyond the continental shelf, whose depths are at even lower levels;
- The Gouf de Capbreton, on the southern edge of the Bay of Biscay, is a long canyon that cuts into the continental shelf. It begins a few hundred metres from the entrance to the port of Capbreton and extends westwards for over 250 km into Spanish waters.

Below is the presentation of the coastline environmental issues.

4.2.1. Benthic habitats

LOCATION OF HABITATS OF STRONG CONCERN AND ASSESSMENT OF THEIR STATUS AT COASTLINE LEVEL

These are the sedimentary habitats that occupy more than 95% of the seabed in the southern shelf of the Bay of Biscay marine sub-region. The area is characterised by **sandy sediments ranging from fine sands**, especially in the most sheltered areas (inlets, bays and estuaries), to coarse sands.

The largest dwarf eelgrass beds in France develop here (Arcachon, Pertuis Sea), as well as upper salt marsh beds and, on more limited surfaces, maerl (Pertuis) and flat oyster beds and eelgrass beds (Arcachon).

The Charente straits and the Gironde are characterised by **large infralittoral and intertidal mudflats** and, further offshore, two remarkably large circalittoral mudflats.

Reefs are present over more limited areas to the west of the islands of Ré and Oléron and to the south of the mouth of the Gironde. Those of the Basque coast and the Plateau de Rochebonne have an unusual algal and animal composition with a great diversity of habitats depending on the depth. In the intertidal zone the reefs are colonised by fucalae and kelp. As for the rocky foreshores, they are colonised by honeycomb worm reefs.

Carbonate rock structures formed by cold methane emissions in the south at the edge of the continental shelf are the only site of the Natura 2000 habitat "underwater structures formed by gas emissions" in France.

The **canyon** of the Gouf de Capbreton, close to the coast, is a global exceptional feature with development of a very particular fauna.

Underneath the slope, at the Spanish border, at a depth of more than 1000 m, the Landes high plateau is made up of bathyal mud and is colonised by gorgonians, sea pens and some corals.

According to the assessment conducted by Annex 2b of Part 1 of the SBS, the **environmental status of this group of issues is not known**. The BenthVal indicator, which quantifies the loss of species abundance, was nevertheless used during the 2012-2016 period on 5 resorts characteristic of 3 major habitat types (intertidal sediments, infralittoral sands and infralittoral mud): for 4 of them, a significant drop in the indicator value was observed, revealing a recent degradation of the habitat following

a disturbance, and for 1 resort, an improvement in condition was demonstrated. However, to date and in view of current methodological developments and the absence of thresholds, the achievement of GES for these habitats cannot be assessed.

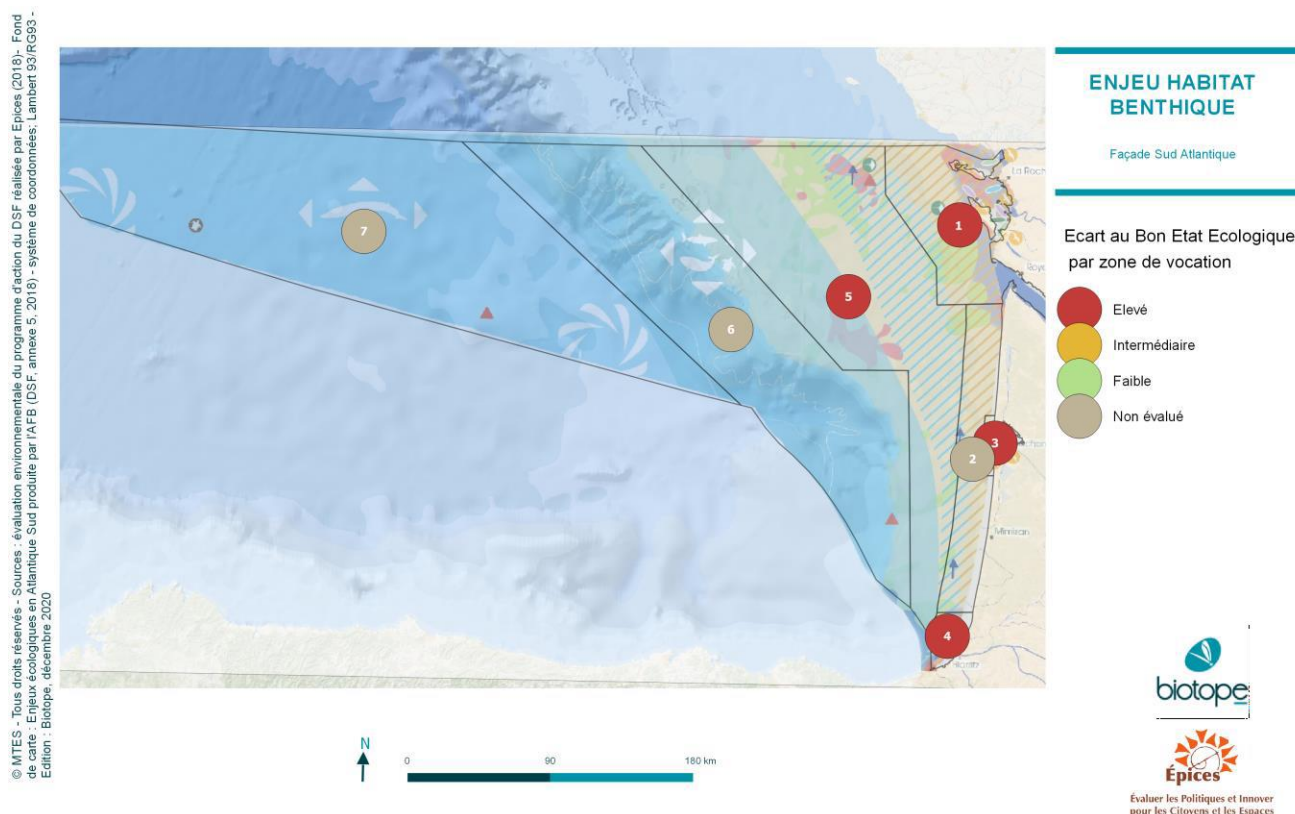
It should be noted, however, that of the 35 habitats assessed in the Atlantic under the European Red List of Habitats, 1 habitat is critically endangered (flat oyster bed) and 11 are threatened (mainly silted habitats), and the intertidal honeycomb worm reefs are near threatened. In the end, no sedimentary habitats are classified as "non-threatened".

It should be noted, however, that the observations of the Plateau de Rochebonne, as well as the isolated Basque rocky seabeds, have revealed an excellent state of conservation for the "reef" habitats in the former and rather positive for the habitats identified in the latter.

On the SA coastline, the major ecological issues concerning benthic habitats are distributed as follows by sectors (source: Annex 5c of Part 1 of the SBSB):

Sector	The Gironde Estuary and Pertuis Sea Marine Nature Park (Zone 1)	Marine Nature Park of Arcachon Bay (Zone 3)	Basque rocky coast, Adour estuary and Gouf de Capbreton (Zone 4)
Major issues	Honeycomb worm reefs Subtidal and intertidal muds	Dwarf eelgrass beds (48% of the beds in France)	Underwater caves

OVERALL SPATIAL DISTRIBUTION AT VOCATION ZONE LEVEL: GES DEVIATION



In terms of deviation from good environmental status, only vocation zones 1, 3, 4, 5 could be assessed with a "high" deviation. VZs 2, 6 and 7 could not be assessed due to insufficient data.

For the 4 zones with a "high" GES deviation, the reliability of the results obtained is considered to be low as the GES deviation is mainly based on Natura 2000 data and classification of habitats on the European Red List where possible, as the GES status could not be assessed on its own.

PRESSURES ON HABITATS

The main sources of pressure exerted by anthropogenic activities on benthic habitats are as follows (source: SBSDE ET sheets, Annex 6c):

Type of benthic habitat Pressure-generating activity	Intertidal rocky habitats	Subtidal and circalittoral rocky habitats	Sedimentary habitats	Bioconstructions with Sabellaria (honeycomb worms)	Eelgrass beds	Salt marshes
Maritime public works	No Yes	No Yes	No Yes	No Yes	No Yes	No Yes
Coastal artificialization	No Yes	No Yes	No Yes		No Yes	No Yes
Agriculture and industry	No Yes					No Yes
Professional fishing	Yes Yes	Yes Yes	Yes Yes	Yes Yes	Yes Yes	
Recreational fishing	Yes Yes		Yes Yes	Yes Yes		
Aquaculture				No Yes	Yes Yes	
Extraction of materials			No Yes			
Coastal tourism					Yes Yes	Yes Yes
Seaside activities and beach use			No Yes		Yes Yes	
Recreational sailing and water sports				No Yes	Yes Yes	

Key:

- ✓ Pressure-generating activity for the habitat type **(the most contributory)**
- ✓ Activity dependent on the environmental status of the habitat type

4.2.2. Mammals and turtles

STATUS OF MARINE MAMMALS AND TURTLES OF STRONG CONCERN AND ASSESSMENT OF THEIR CONDITION AT COASTLINE LEVEL

The coastline is a major area in Europe for **large cetaceans: beaked whales, fin whales, long-finned pilot whales and sperm whales**. Species concentrations are among the highest in Europe, especially near the slope.

Oceanic dolphins are abundant in the open sea and on the shelf.

Finally, the abyssal plain is a concentration area for **leatherback sea turtles in the summer**.

The Assessment of the environmental status of the marine environment and exerted pressures (Annex 2b of Part 1 of the SBS D) for descriptor D1 - marine mammals, carried out in 2018, made it possible to quantitatively assess the status of marine mammal populations in mainland French waters for the first time. Quantitative indicators could therefore be developed and calculated for at least one species for all

descriptor 1 criteria. However, this assessment remains incomplete for the entire "marine mammals" component. Indeed, while the assessment of certain species such as common dolphins appears to be robust, many cetacean species could not be assessed, in particular baleen whales and deep diving toothed whales: of the 10 species considered representative of the Bay of Biscay marine sub-region for these two groups, only 4 could be assessed; furthermore, for these 4 species assessed, only half of the criteria could be completed (or even only one criterion for the fin whale).

For the species assessed, the results show no statistically significant variation in cetacean abundance and distribution. On the other hand, the intensity of the pressures on cetaceans does not seem compatible with achieving the GES. In the Bay of Biscay marine sub-region, incidental catch rates for harbour porpoise and common dolphin exceed the threshold values for good environmental status and are likely to affect the population dynamics of these two species. Therefore, the GES is not achieved for the "marine mammal" component of the D1 descriptor in the Bay of Biscay marine sub-region. In addition, measurements on bottlenose dolphins and porpoises have shown worrying levels of contamination.

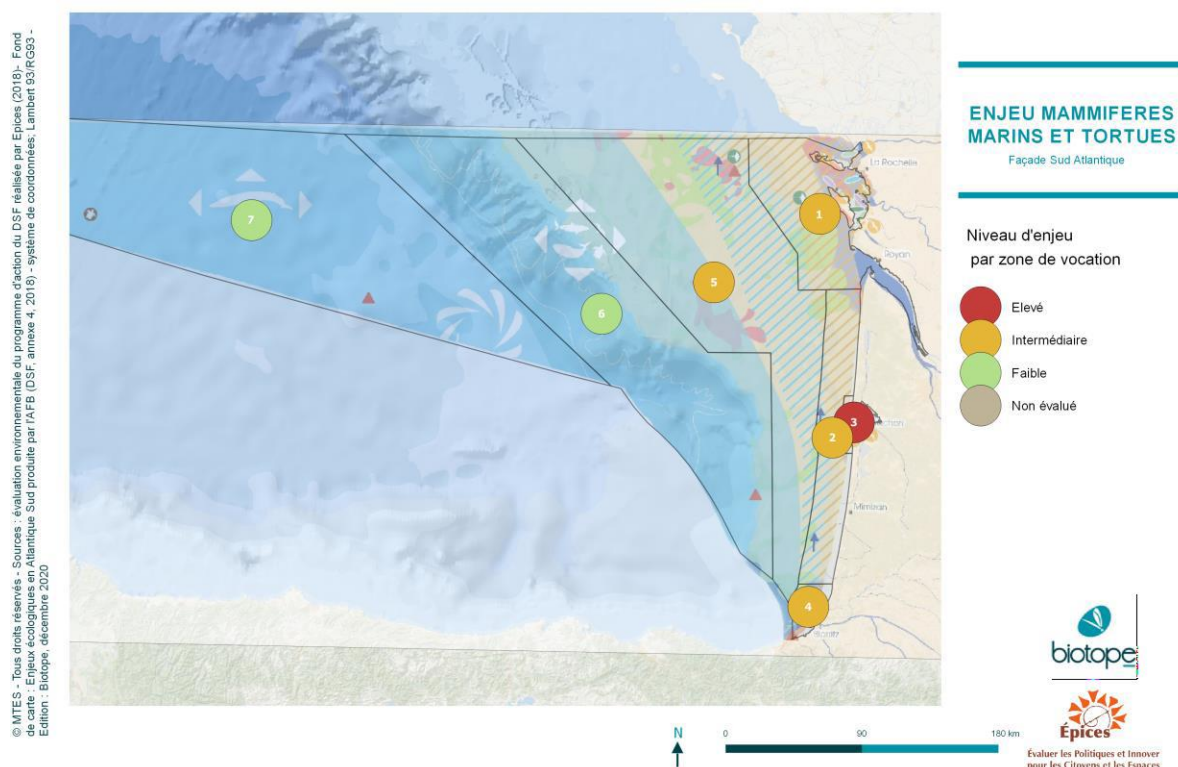
The leatherback sea turtle is classified as "vulnerable" on the IUCN global red list. Although the current state of development of indicators does not allow for a quantitative assessment of the GES of the species, assessments carried out in other settings nevertheless highlight an unfavourable state of these turtle populations.

In terms of the coastline, the ecological issues concerning marine mammals are qualified as major in vocation zone 7 (source: annex 5c of part 1 of the SBSD):

Sector	Abyssal Plain (zone 7)
Major issue	Fin whale (highest density in Europe)

OVERALL SPATIAL DISTRIBUTION AT VOCATION ZONE LEVEL: GES DEVIATION

Spatialisation of the deviation from good status is the result of cross-referencing the assessment of



the GES achievement from the Bay of Biscay marine sub-region (Annex 2a of Part 1 of the SBSD) for the marine mammals' group with the assessment of the ecological issues identified within the vocation zones and their qualification (Annex 5c of Part 1 of the SBSD). This cross-referencing shows large spatial differences in the GES deviation between the zones. It can be seen that the GES deviation is on the whole low in the offshore area, due to the fact that the GES is achieved for baleen whales (minke whales and fin whales) and deep diving toothed whales (pilot whales and Risso's dolphin), and is higher when moving towards the coastal zones, where the presence of small cetaceans is more marked (harbour porpoise, common dolphin, striped dolphin and bottlenose dolphin), and for which the GES is not achieved for half of the species assessed.

Therefore, the high good status deviation that can be seen in vocation zone 3 (Arcachon bay) is due to the ecological issues identified in annex 5c concerning the presence of harbour porpoises in this sector in winter, a species for which the GES is not achieved. However, in this sector, this assessment needs to be looked at in context for two reasons:

- Vocation zone 3 remains a zone less frequented by cetaceans than other coastline areas (especially the slope zone)
- the GES not achieved for harbour porpoise is linked to the incidental catch mortality rates (criterion assessed at Bay of Biscay marine sub-region level); yet these incidental catches are in fact more significant in the slope zones than in

vocation zone 3, which the methodology applied here does not allow to be highlighted.

The good status deviation noted as intermediate in vocation zones 1, 2, 4 and 5 is related to the presence of oceanic dolphins and porpoises, of which half of the species assessed achieve GES.

The low good status deviation for vocation zones 6 and 7 is related to the presence of a maximum diversity of species, the majority of which achieve good status. The methodology used for this assessment therefore masks the pressures related to incidental catches that may be observed on small cetaceans in these zones.

Therefore, **the level of reliability given to the good status deviation presented above remains low overall**, due to the methodology used and the data available within the framework of the assessment of environmental status (Annex 2b of part 1 of the SBSD), which remains incomplete for the entire "marine mammals" component, as explained in the previous paragraph.

PRESSURES ON MARINE MAMMALS AND TURTLES

The main sources of pressure exerted by anthropogenic activities on marine mammals and sea turtles are as follows (source: SBSD ET sheets, annex 6c):

Pressure-generating activity	Marine mammals and turtles
Maritime transport and ports	No Yes
Professional fishing	No Yes
Energy production	No Yes
Coastal tourism	Yes Yes
Seaside activities and beach use	Yes Yes
Agriculture	No Yes
Recreational sailing and water sports	Yes Yes
Defence and public intervention at sea	No Yes
Industries	Yes

Key:

✓ Pressure-generating activity for marine mammals and turtles (the most contributory)

✓ Activity dependent on the environmental status of marine mammals and turtles

4.2.3. Sea birds

STATUS OF SEA BIRDS OF HIGH CONCERN AND ASSESSMENT OF THEIR CONDITION

Four wintering sites for sea birds have been identified in the Pertuis Sea and a fifth in the Arcachon bay. The number of birds recorded is significant at international level. The Ile de Ré and the Banc d'Arguin are also nesting sites.

According to the MNHN's expert assessment (annex 2b of part 1 of the SBSA SA), the assessment of the achievement of the GES for sea birds present on the coastline is as follows:

— Abundance of breeding sea birds:

GES not achieved for 2 species;

GES not assessed for 1 species;

GES achieved for 8 species;

— Abundance of coastal shorebirds:

GES achieved for 12 species;

— Abundance of birds at sea:

GES not achieved for 5 species;

GES achieved for 12 species;

— Young sea bird production:

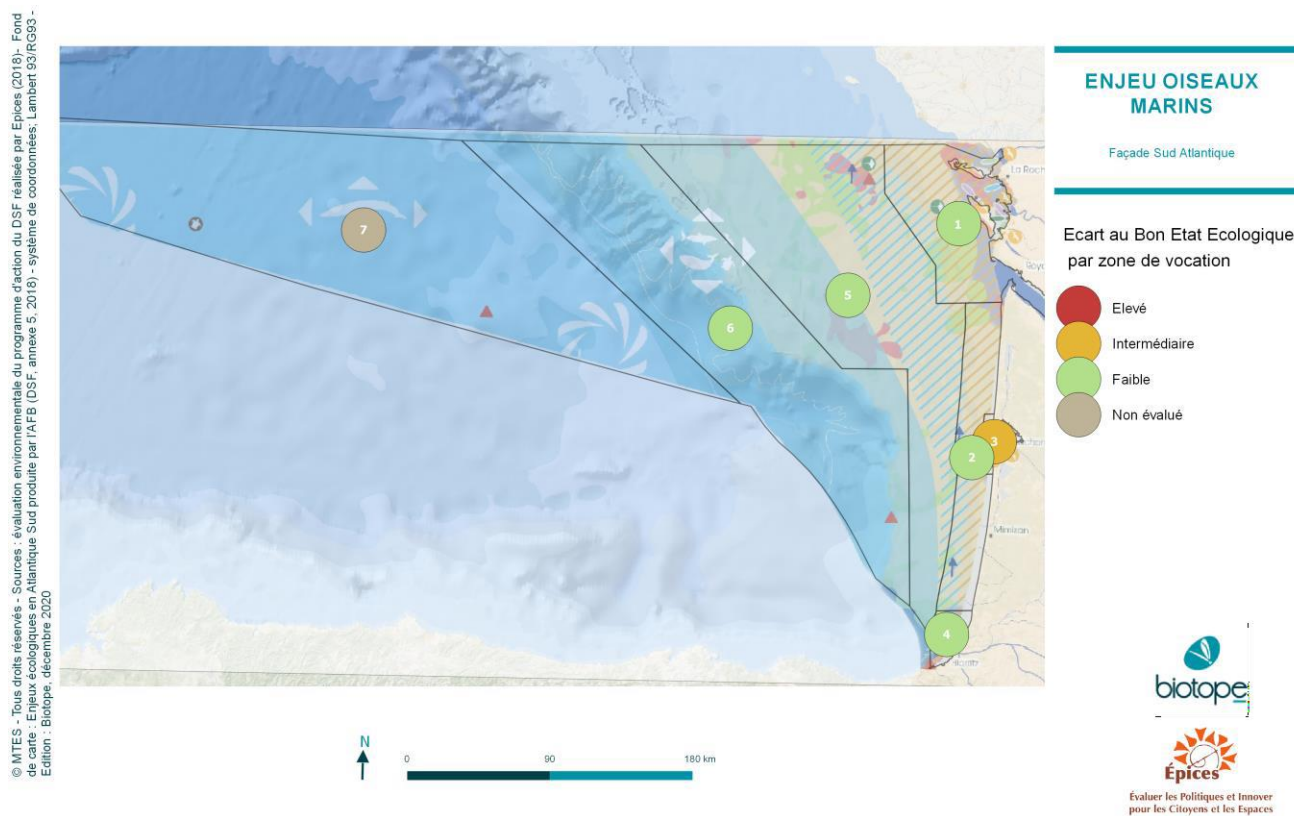
GES not assessed for 10 species;

GES achieved for 1 species.

These results are still too incomplete to allow an assessment of the achievement of the GES for the "sea bird" component.

In terms of the coastline, the environmental issues are described as follows (annex 5c, part 1 of the SBSA SA): the density of bird species is a major issue in two sectors of the coastline:

Sector	Gironde and Landes coasts (zone 2)	Basque rocky coast(zone 4)
Major issues	Density of bird species (including Balearic shearwater)	Density of bird species (including Balearic shearwater)

OVERALL SPATIAL DISTRIBUTION AT VOCATION ZONE LEVEL: GES DEVIATION

The GES deviation is generally low for the SA coastline. The Arcachon bay is an exception with a GES classified as "intermediate" because only 2 of the 9 species considered could be assessed. VZ 7, the furthest offshore, could not be assessed due to lack of data. However, it is important to note that the **reliability of the status is considered low for all zones**. The GES is not known for a large majority of species or assessed on the basis of a single assessment criterion (annex 2b of part 1 of the SBSA SA): significant gaps in knowledge remain on the distribution, abundance and demographics of birds at sea.

PRESSURES ON SEA BIRDS AND COASTAL BIRDS

The main sources of pressure exerted by anthropogenic activities on sea birds are as follows (source: SBSA ET sheets, annex 6c):

Pressure-generating activity	Sea birds
Coastal tourism	Yes
Seaside activities and beach use	Yes
Recreational sailing and water sports	Yes
Coastal artificialization	No
Professional fishing	No
Energy production	No
Recreational fishing	No

Key:

✓ Pressure-generating activity for sea birds (the most contributory)

✓ Activity dependent on the environmental status of sea birds

Note: To date, no wind farms have been installed on the SA coastline.

4.2.4. Fish and cephalopods

ALLSPECIES₁₀

LOCATION OF FISH AND CEPHALOPODS OF HIGH CONCERN AND ASSESSMENT OF THEIR CONDITION

The coastline has a responsibility at European level for diadromous fish in the Adour and Gironde estuaries. The Gironde is the last European river which houses the European sea sturgeon. There are also very significant numbers of shad, lamprey, salmon and eel, with shad and sturgeon nurseries in coastal waters. Finally, the muddy environments under the pressure of the estuarine plumes, the bays and the salt marsh beds are major nursery sectors (wedge sole, plaice, sole, anchovy, eel, sea bass, black sea bream, meagre, rays, sardine, etc.) and spawning grounds (anchovy, sardine, sea bass, black sea bream, meagre, rays, cuttlefish, sole, sprat). The Gironde and Landes coasts are also functional zones for pelagic species (anchovy, sardine, jack mackerel, mackerel, hake, sprat). Several species of elasmobranchs that are endangered worldwide are also present on the coastline - IFREMER has listed 29 of them, particularly in the Pertuis Sea, the Arcachon bay and the Plateau de Rochebonne (white skate, angel shark, skate, etc.).

According to the 2018 MSFD assessment of the environmental status of fish and cephalopods in mainland France carried out by MNHN and IFREMER, the achievement or non-achievement of the GES could be assessed for a total of 31 species at the SA coastline (4 species of coastal fish, 8 species of pelagic fish, 12 species of demersal fish and 7 species of diadromous fish), i.e. less than 15% of the list of species identified as

¹⁰ Corresponding to the D1 GES descriptor

relevant at the national level for the assessment of the "Fish" and "Cephalopods" component. No deep-sea fish or cephalopod species could be assessed. Among these species:

- The 7 diadromous species assessed do not achieve the GES;
- The 4 species of coastal fish and cephalopods assessed do not achieve the GES;
- 6 of the 8 pelagic fish species that could be assessed do not achieve the GES;
- 2 of the 12 demersal fish species assessed do not achieve the GES.

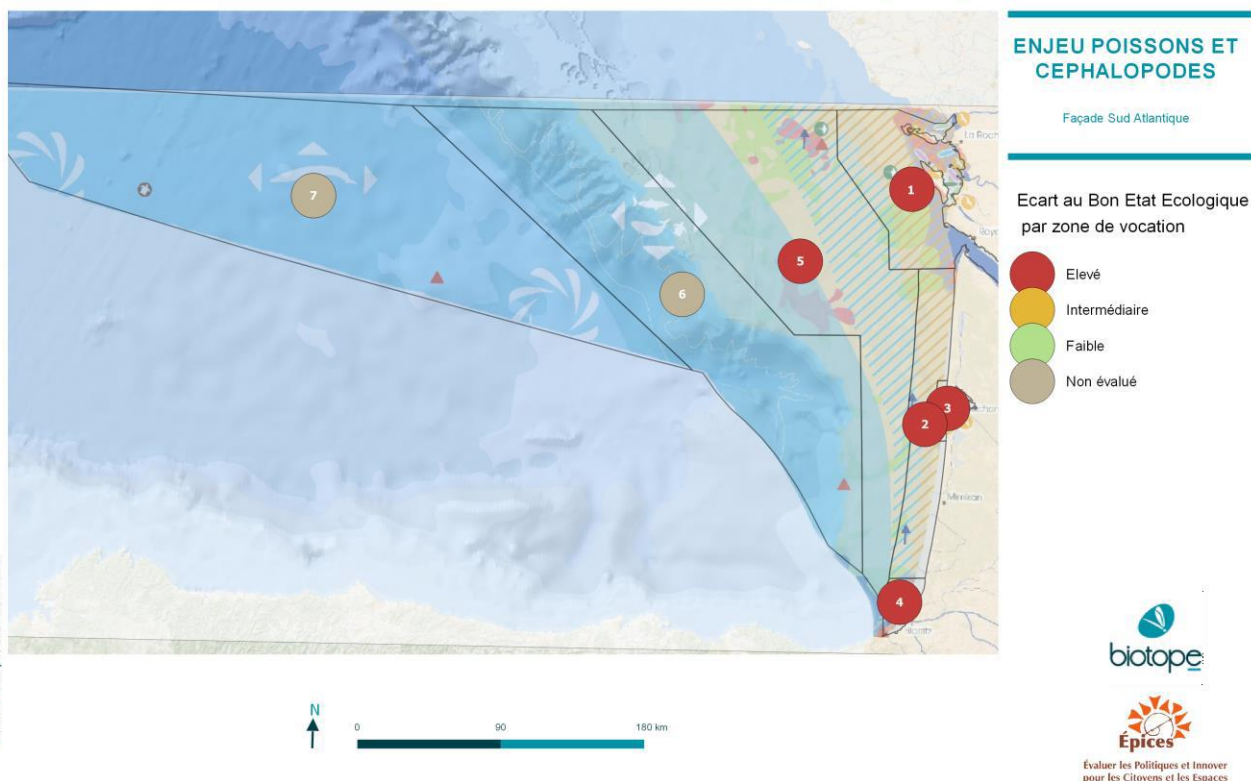
It should also be noted that for the majority of elasmobranch species, the GES could not be assessed, and that it was not achieved for 3 species.

Finally, for all of these species, the GES was not assessed for the functional fishing areas (nurseries and spawning grounds).

Annex 5c of part 1 of the SBSB identifies the following as areas of major concern for fish: vocation zone 1 (Gironde Estuary and Pertuis Sea Marine Nature Park) and sector 2 (Aquitaine sandy coast), for sturgeons.

Sector	Gironde Estuary and Pertuis Sea Marine Nature Park (zone 1)	Aquitaine sandy coast (Zone 2)
Major issues	Sturgeon	Sturgeon

OVERALL SPATIAL DISTRIBUTION AT VOCATION ZONE LEVEL: GES DEVIATION



Apart from VZ 6 and 7 which have not been assessed, there are too few fish and cephalopod species for which the GES is achieved in the other zones. Therefore, there is a high deviation from the GES on the overall issue of fish and cephalopods on the entire coastline. Furthermore, the reliability of these results is low because, for a large proportion of the species of concern selected for analysis at vocation zone level, the GES status is unknown.

PRESSURES ON FISH AND CEPHALOPODS

The main sources of pressure exerted by anthropogenic activities on fish and cephalopods - wild species - are as follows (source: SBSDE ET sheets, annex 6c):

Type of fish and cephalopods Pressure-generating activity	Functional fishing areas	Coastal fish and cephalopods	Areas of concentration and migration of diadromous fish	Elasmobranchs
Maritime transport and ports	No Yes			
Maritime public works	No Yes	No Yes		
Energy production	No Yes			
Extraction of materials	No Yes			
Professional fishing	Yes Yes	Yes Yes	Yes Yes	No Yes
Recreational fishing	Yes Yes	Yes Yes	Yes Yes	Yes Yes
Coastal artificialization	No Yes	No Yes	No Yes	No Yes
Coastal tourism	Yes Yes		Yes Yes	
Recreational sailing and water sports	Yes Yes	Yes Yes	Yes Yes	
Seaside activities and beach use			Yes Yes	Yes Yes

Key:

- ✓ Pressure-generating activity for fish and cephalopods(**most contributory**)
- ✓ Activity dependent on the environmental status of the type of fish and cephalopods

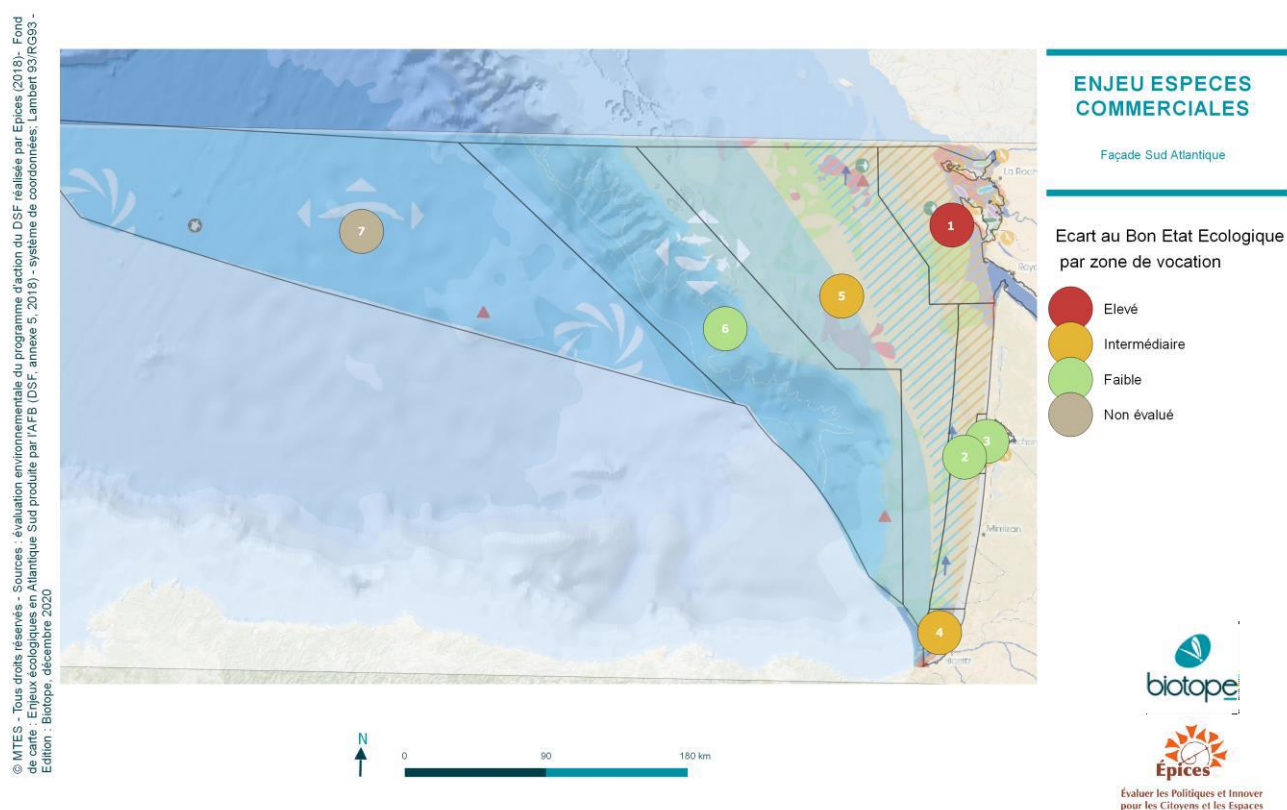
COMMERCIAL SPECIES¹¹

LOCATION OF COMMERCIAL SPECIES OF HIGH CONCERN AND ASSESSMENT OF THEIR CONDITION

For fish species, the estuarine muddy environments, bays and sea grass beds are major nursery areas (wedge sole, plaice, sole, anchovy, eel, sea bass, black sea bream, meagre, rays, sardines) and spawning grounds (anchovy, rays, sea bass, black sea bream, meagre, cuttlefish, sole, sprat, sardine). The Gironde and Landes coasts are also functional zones for pelagic species (anchovy, sardine, jack mackerel, mackerel, hake, sprat).

In the Bay of Biscay marine sub-region, 56 species have been scientifically assessed, 10 stocks (18%) have been quantitatively assessed, of which 3 achieve the GES. The results obtained over the last 10 years also show that conditions are improving for many of the stocks surveyed.

OVERALL SPATIAL DISTRIBUTION AT Vocation ZONE LEVEL: GES DEVIATION



Only VZ 1 has a "high" GES deviation. It should be noted that only 2 out of 9 species could be assessed, including sole, which does not achieve good status. This is also the case for

¹¹ Corresponding to the D3 GES descriptor

VZ 4 and 5 classified as "intermediate" as 2 out of 7 species could be assessed. VZ 2, 3 and 6 have a "low" GES deviation.

PRESSURES ON COMMERCIAL SPECIES

Two activities in particular contribute to the pressure on commercial species: professional and recreational fishing, notably through species extractions impacting on the structure and abundance of communities and accidental capture leading to increased mortality and injury. These activities are also dependent on the environmental status of the issue. To a lesser extent, other activities can generate impacts: material extraction, through the destruction of benthic species, or research and development activities which can generate one-off impacts through scientific testing (Source: annex 6c of part 1 of the SBSB).

4.2.5. Food webs

The food webs of the coastline are structured by special habitats: the frontal zone associated with the slope, the coastal upwellings along the Gironde and Landes coasts, the estuarine plumes and the land-sea interface areas (Pertuis, Gironde, Arcachon). These areas are sites of significant primary and secondary production.

In the absence of a scientific report, there is no conclusion on the GES status for this group of issues.

The main pressures impacting food webs are nutrient inputs, removal of forage species, changes in hydrographical conditions, but also inputs of waste, hazardous substances, organic matter, introduction of microbial pathogens and non-indigenous species (source: SBSB ET sheets, annex 6C).

The GES status has not been assessed for this issue. A fortiori, it was therefore not possible to spatialise the GES deviation at vocation zone level.

4.3. Issues related to pressures on the marine environment

4.3.1. Non-indigenous species

ORIGIN OF PRESSURES AND ASSESSMENT OF THE LEVEL OF CONCERN

Non-indigenous species (NIS) are a major threat to marine biodiversity. They therefore particularly threaten the following ecological issues: Functional fishing areas (spawning grounds, nurseries), biocoenoses of the loose infralittoral (intertidal and subtidal), biocoenoses of the rocky mediolittoral (intertidal and subtidal), biocoenoses of the hard substratum of the infralittoral and circalittoral, pelagic and benthic food webs.

They also have significant socio-economic impacts. Therefore, on the coastline, they lead to losses in shellfish farming profits, linked to the reduction of cultivated biomass, the lengthening of the farming cycle and the time needed to clean the

shellfish facilities due to NIS. These species also reduce certain recreational uses such as swimming and foot fishing.

Only one indicator is sufficiently developed to date to make a semi-quantitative and partial assessment of new introductions, which is the primary criterion, according to a European standard, for measuring the GES. Therefore, since 2012, 15 new NIS have been reported on the coastline. However, as there is currently no threshold defining the maximum level of NIS introduction compatible with the GES, it is not possible to assess whether or not the GES is achieved for this issue. Furthermore, in the absence of a dedicated monitoring programme at present, there is no comparison point to identify whether introductions and impacts of non-indigenous species are decreasing or increasing. In conclusion, to date, the GES for non-indigenous species is therefore considered not assessable by the scientific pilots.

The main anthropogenic activities that may contribute to the introduction of NIS are presented in the following table (source: SBS D ET sheets annex 6c). In the absence of a dedicated monitoring programme, it is difficult at present to measure whether the impacts of non-indigenous species are decreasing or increasing.

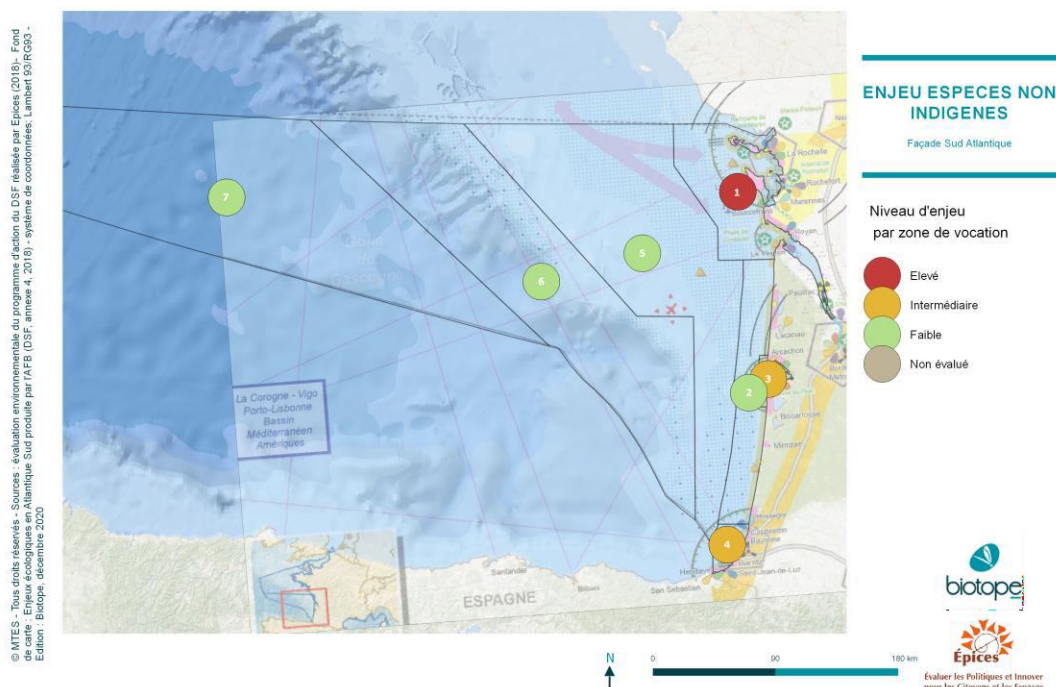
Pressure-generating activity	Non-indigenous species
Maritime transport and ports	No Yes
Defence and public intervention at sea	No Yes
Aquaculture	Yes Yes
Recreational sailing and water sports	No Yes
Recreational fishing	Yes Yes
Coastal artificialization	Yes

Key:

✓ Activity leading to the introduction of non-indigenous species (the most contributory)

✓ Activity dependent on the growth status of non-invasive species

OVERALL SPATIAL DISTRIBUTION AT VOCATION ZONE LEVEL: LEVEL OF CONCERN



As the status of the GES was not assessed for the NIS issue, the spatialisation of the issue by vocation zone was based on the distribution of activities that could exert pressure on the issue. Only vocation zone 1 has a high level of concern regarding NIS, as it combines the presence of several activities that may contribute to the presence of NIS: large commercial ports, shellfish farming areas, aquarium. The other coastal zones (3 and 4) are classified as intermediate level, mainly due to the presence of shellfish farming areas (VZ3) and commercial ports (VZ4). The offshore zones are less affected by the issue of ENI and are classified as low level of concern.

4.3.2. Eutrophication

ORIGIN OF PRESSURES AND ASSESSMENT OF THE LEVEL OF CONCERN

Human-induced eutrophication, especially in terms of its adverse effects, such as the loss of biodiversity, ecosystem degradation, toxic algal blooms and deoxygenation of seabed waters, is minimised on the coastline, with about 98% achieving the GES. Indeed, the offshore zones are not affected by eutrophication. The GES is considered not to have been achieved in only one area of 451 km² at the mouth of the Gironde, where the diagnosis needs to be consolidated.

The main environmental issues impacted by eutrophication are the functional fishing areas (spawning grounds, nurseries), intertidal sedimentary habitats, intertidal rocky habitats, pelagic habitats and food webs.

The main inputs of nutrients are by land, river and/or air. The main activities generating eutrophication are agriculture, maritime transport and coastline artificialization (source: SBSDE ET sheets, annex 6c):

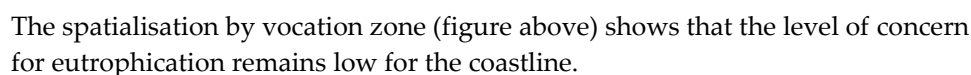
Pressure-generating activity	Eutrophication
Agriculture	No Yes
Coastal artificialization	No Yes
Maritime transport and ports	No Yes
Industries	No Yes
Coastal tourism, seaside activities and beach use, recreational sailing and water sports	Yes No
Aquaculture	Yes No
Extraction of materials	No Yes
Recreational fishing	Yes No

Key:

✓ **Eutrophication generating activity (the most contributory)**

✓ Activity dependent on eutrophication status

OVERALL SPATIAL DISTRIBUTION AT VOCATION ZONE LEVEL: GES DEVIATION



Half of the major benthic habitat types on the SA coastline are potentially disturbed to more than 95% of their area, mainly due to professional fishing with bottom towed gear. The relative areas and percentages calculated for

this assessment must however be put into perspective, particularly because of the data and the method used. Professional fishing with bottom towed gear was characterised by raw VMS data, which did not allow the activity to be spatialised accurately (cf. Annex 2b of part 1 of the SBSDB page 186). In accordance with the precautionary principle, the theory selected to overcome the lack of knowledge of the areas actually subject to pressure, leads to an overestimation of the habitat areas potentially disturbed by professional fishing with bottom towed gear.

The potential physical pressures on the seabed are assessed from data relating to anthropogenic activities likely to generate these pressures: coastal development, extraction of marine aggregates, dredging and dumping of dredged material, anchoring, aquaculture and professional fishing with bottom towed gear.

The main anthropogenic activities likely to contribute to seabed artificialization are as follows (source: SBSDB ET sheets annex 6C):

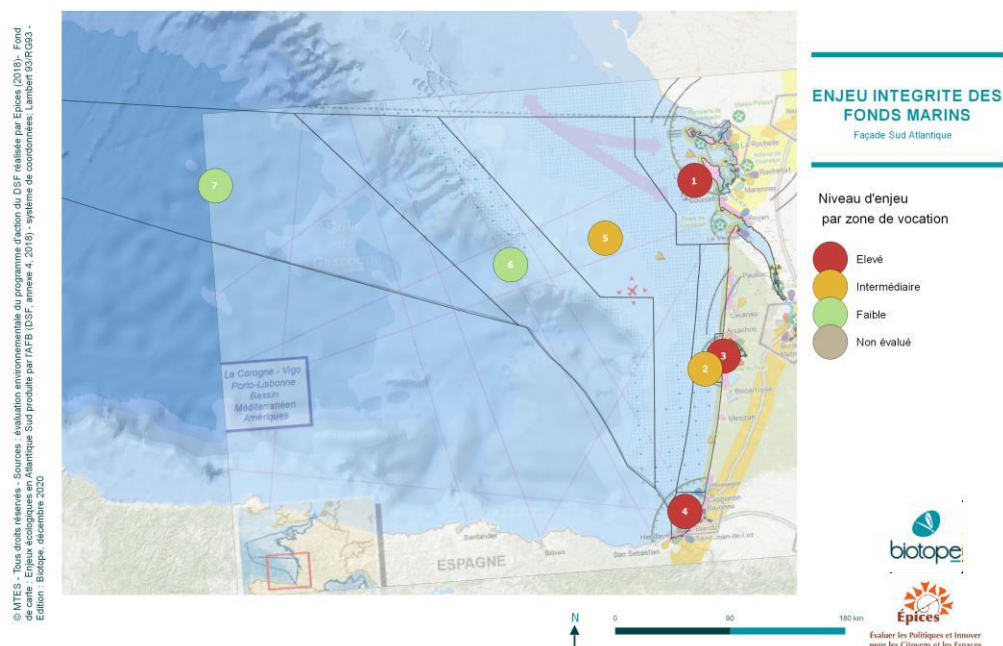
Pressure-generating activity	Seabed integrity
Extraction of materials	No Yes
Maritime public works	No Yes
Professional fishing	No Yes
Seaside activities and beach use	No Yes
Aquaculture	No Yes
Underwater cables	No Yes
Recreational sailing and water sports	No Yes
Energy production	No Yes
Research and development	No Yes
Recreational fishing	No Yes

Key:

✓ Activity generating seabed artificialization (the most contributory)

✓ Activity dependent on seabed integrity

OVERALL SPATIAL DISTRIBUTION AT VOCATION ZONE LEVEL: LEVEL OF CONCERN



As the GES status was not assessed at this stage, the spatialisation of the "seabed integrity" issue by vocation zone was based on the distribution of activities that may exert pressure on the issue. Three vocation zones have a high level of concern regarding this issue: VZ1, 3 and 4 because they cumulate more than four activities of concern (for example: anchoring, aquaculture, coastal structures, extraction of materials, dredging, dumping of materials). The other zones have an intermediate level of concern with less pressure activities. Zones 6 and 7 offshore, where there is only professional fishing with bottom towed gear activity, are classified as low concern.

4.3.4. Changes in hydrographical conditions

ORIGIN OF PRESSURES AND ASSESSMENT OF THE LEVEL OF CONCERN

With regard to changes in hydrographical conditions, seven pressures were considered: changes in the nature of the seabed and in current, tidal, wave, temperature, salinity, and turbidity regimes.

The assessment of this descriptor, based on anthropogenic activity data, has revealed significant variations in exposure to pressures:

- The coastal zone is the most exposed to the water pressures considered;
- The pressures of changes in "turbidity" and "nature of the seabed" have the largest potential exposure areas (53% of the coastline subdivision). However, the exposure index remains mostly low.

The incompleteness and uncertainties of the input data, as well as the use of expert opinion and subjective decision rules, mean that these results should be treated with caution.

OVERALL SPATIAL DISTRIBUTION AT VOCATION ZONE LEVEL:



The results presented in the map above are taken from the GES's technical assessment review. They are therefore based mainly on the map of potential risks of changes to benthic habitats. However, this map was drawn at a scale that was not

adapted to the analysis by sector of the vocation map, sometimes making interpretation difficult. The resulting reliability should therefore be considered low. The methodological choice was to increase the level of concern when a part of the zone, whatever its size, presented a medium (intermediate level) or strong (high level) risk. As a result of this summary, the level of concern for hydrographical conditions is high for zones 1, 2, 3 and 4, intermediate for zones 5 and 6 and not assessed for zone 7. It can be noted that the zones with the greatest risk of change coincide with the zones with the most anthropogenic activities, in particular tourism activities, shellfish farming, dredging, material extraction, coastal structures including the presence of ports.

4.3.5. Chemical and microbiological contamination

ORIGIN OF PRESSURES AND ASSESSMENT OF THE LEVEL OF CONCERN

All environmental issues are affected by contamination, especially the animal species present in the coastal zone. The levels of contaminants in fish and other seafood intended for human consumption shall not exceed the thresholds set by Union legislation or other applicable standards. The Bay of Biscay is the highest ranked of the 4 marine sub-regions in terms of swimming water quality.

The GES is assessed on 4 criteria:

- the concentration in the environment,
- the effects on the ecosystem,
- the duration and spatial extent of acute pollution events,
- the negative effects of acute pollution on biota.

On the SA coastline, the assessment of whether the GES has been achieved is as follows:

- for sediments: GES not achieved for at least one resort for 6 of the 7 metals assessed and threshold value for mercury and lead exceeded at the Basque coast;
- for bivalve molluscs: GES not achieved for at least one resort for mercury and lead in the Arcachon bay, for CB 118 along the coast, and for dieldrin in the southern part of the Bay of Biscay;
- for fish: GES not achieved for CB 118 in mackerel and sardine, and for cadmium in small-spotted catshark.
- for ecosystem effects: no GES assessment by the Imposex monitoring indicator for the coastline.

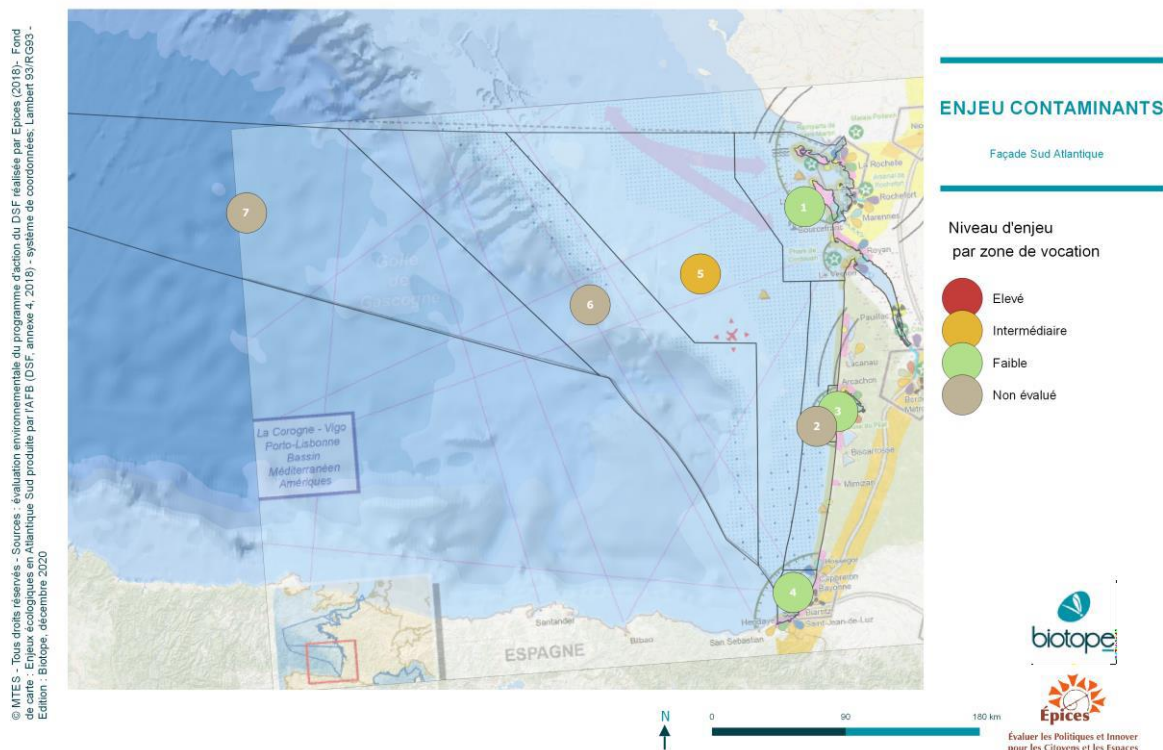
The main activities generating chemical and microbiological contamination are as follows: (source: SBSD ET sheets, annex 6c):

Pressure-generating activity	Contaminants (chemical)	Health issues (microbiological)
Agriculture	No Yes	No Yes
Industries	No Yes	No Yes
Maritime transport	No Yes	No Yes
Port activity		No Yes
Shipbuilding	No Yes	
Maritime public works	Yes Yes	No Yes
Underwater cables	No Yes	
Extraction of materials	No Yes	No Yes
Energy production	No Yes	
Professional fishing	Yes Yes	
Aquaculture	Yes No	Yes No
Coastline artificialization	No Yes	No Yes
Coastal tourism	Yes Yes	Yes Yes
Seaside activities and beach use	Yes Yes	Yes No
Recreational sailing and water sports	Yes Yes	Yes Yes
Defence and public intervention at sea	No Yes	
Recreational fishing	Yes No	Yes No

Key:

✓ Activity generating chemical and microbiological contamination (the most contributory)

✓ Activity dependent on the state of chemical and microbiological contamination

OVERALL SPATIAL DISTRIBUTION AT VOCATION ZONE LEVEL: GES DEVIATION

The results presented in the map above are taken from the GES's technical assessment review. They are therefore based on the maps referring to the status of main contaminant concentrations (metals, HAP21, PCB22 and pesticides), in sediments and bivalve molluscs, and on the Imposex bioindicator map. Our analysis is based on the set thresholds for the different substances being exceeded. Vocation zones 2, 6 and 7 have not been assessed and coastal zones 1, 3 and 4 are classified as low concern. Only coastal zone 5 is rated with an intermediate level of concern due to the presence of metals in the sediment, 2 of which exceed the threshold.

4.3.6. Waste

ORIGIN OF PRESSURES AND ASSESSMENT OF THE LEVEL OF CONCERN

Marine litter is made up of macro and micro waste found in several parts of the marine environment: the coastline, the surface and the seabed.

All marine species likely to interact with the waste are impacted: turtles, birds, mammals, invertebrates or fish. The impacts on species are related to ingestion, entanglement (fishing gear, strapping, etc.) and covering, transport of NIS and species at risk (toxic or pathogenic species), discharge of pollutants and generally contributing to chemical pollution.

Despite the acquisition of a lot of better-structured data since the initial assessment in 2012, only the following indicators could be assessed in the Bay of Biscay marine sub-region:

- floating waste and waste on the seabed: GES not achieved;
- floating micro-waste: GES not achieved.

The main activities generating chemical and microbiological contamination are as follows (source: SBSD ET sheets, annex 6):

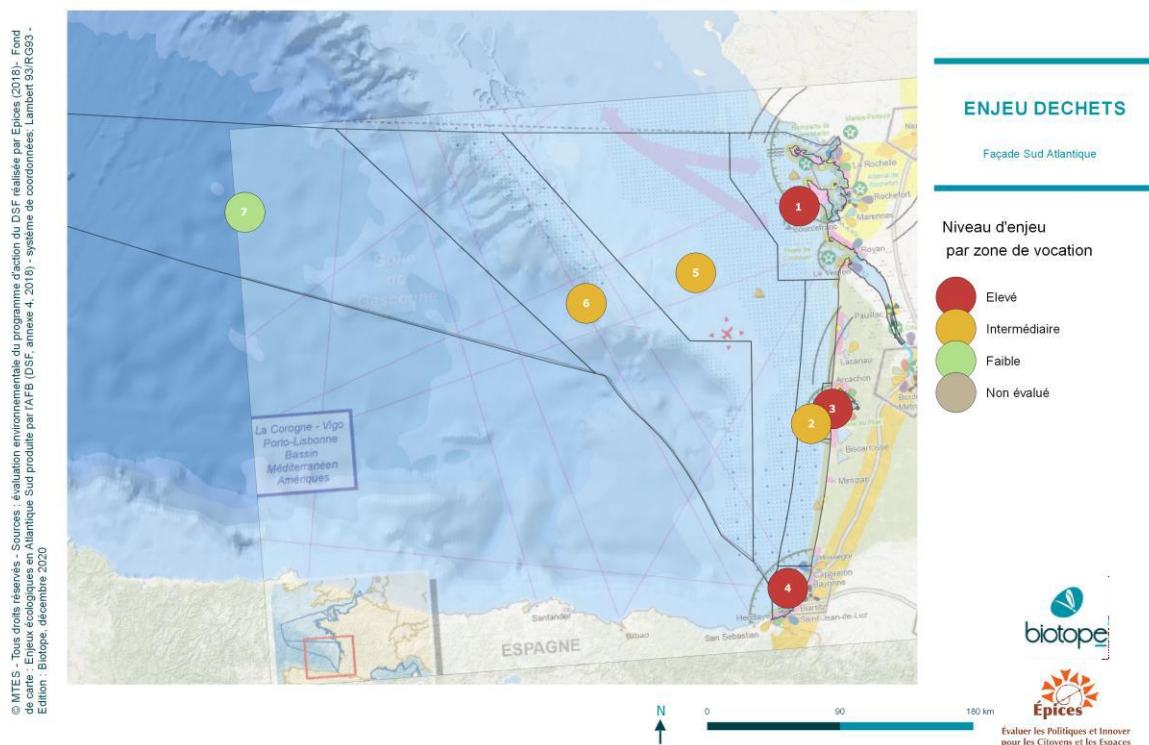
Pressure-generating activity	Waste
Maritime transport and ports	No
Professional fishing	Yes
Aquaculture	Yes
Industries	No
Coastline artificialization	No
Recreational fishing	Yes
Coastal tourism, seaside activities and beach use, recreational sailing and water sports	Yes

Key:

✓ Activity leading to waste (the most contributory)

✓ Activity dependent on waste status

OVERALL SPATIAL DISTRIBUTION AT VOCATION ZONE LEVEL: LEVEL OF CONCERN



The results presented in the map above are taken from the D10 descriptor fact sheet (environmental target and associated indicators) and are based on the maps showing the main activities that generate waste on the coastline (ports, maritime transport, waterways, industry, shellfish farming areas, fishing, tourism, etc.). With the exception of zone 7 offshore, it can be seen that the level of concern is classified as high to intermediate along the entire coastline, with the presence of activity being considered major to intermediate in these zones.

4.3.7. Noise emissions

ORIGIN OF PRESSURES AND ASSESSMENT OF THE LEVEL OF CONCERN

This is a descriptor of the noise pressure generated by anthropogenic activities to which marine mammals are particularly sensitive. It is assessed according to two criteria based on the characteristics of the transmitted signals:

- high-intensity impulsive sounds based on a census of the days of emission impulsive and acoustic emission levels;
- continuous sounds based on modelling of monthly noise from maritime traffic.

Three categories of risk are characterised from the two indicators above: the risk of disturbance, the risk of lethality, the risk of masking.

In the Bay of Biscay marine sub-region, anthropogenic pressure levels related to continuous noise represent a moderate risk.

The achievement of Good Environmental Status is considered as not assessed.

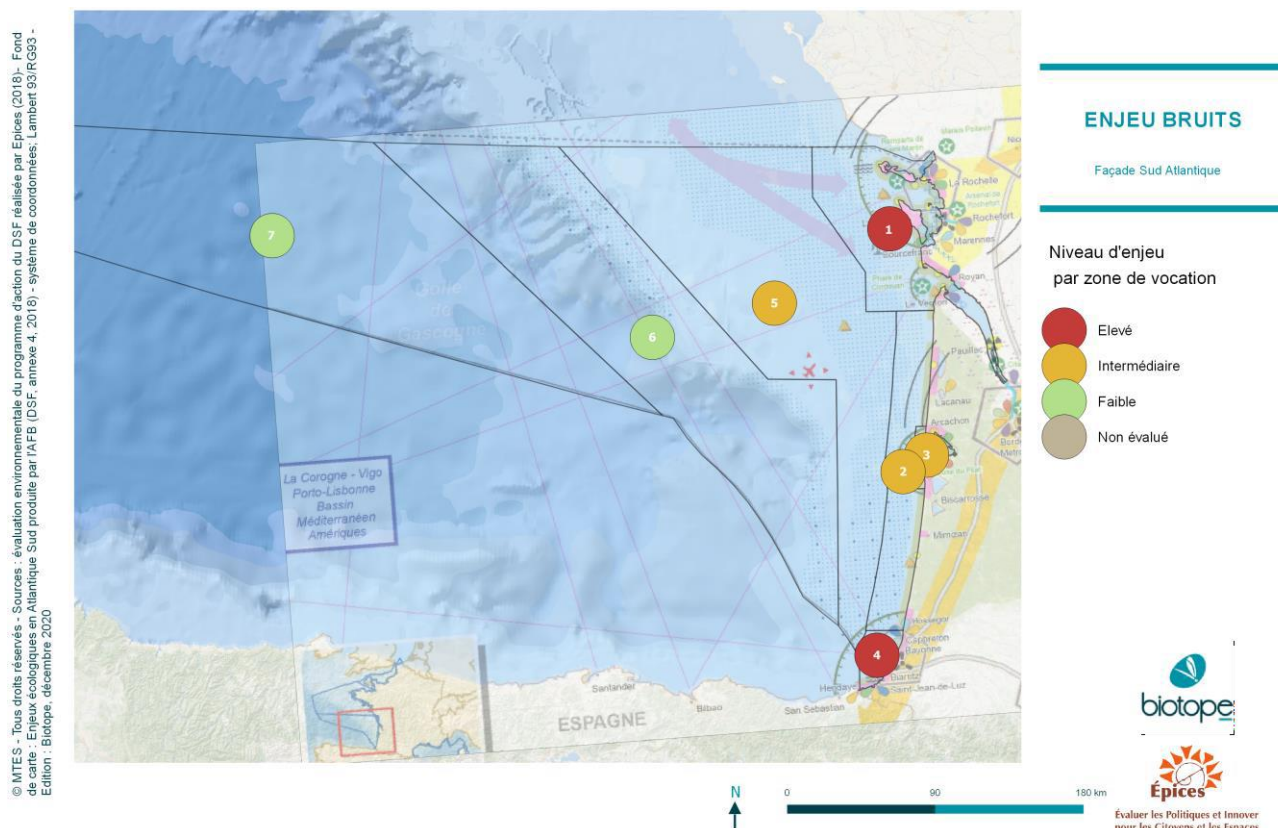
The main anthropogenic activities likely to generate noise pollution are as follows (source: SBSD ET sheets, annex 6):

Pressure-generating activity	Noise emissions
Maritime transport and ports	No Yes
Maritime public works	No Yes
Defence and public intervention at sea	No Yes
Research and development	No Yes
Extraction of materials	No Yes
Underwater cables	No Yes
Energy production	No Yes
Recreational sailing and water sports	No Yes

Key:

- ✓ Activity generating noise emissions (the most contributory)
- ✓ Activity dependent on noise emissions

OVERALL SPATIAL DISTRIBUTION AT VOCATION ZONE LEVEL: LEVEL OF CONCERN



As the environmental status of the noise issue was not assessed, the spatialisation of the issue by vocation zone was based on the distribution of activities that may exert pressure in terms of impulse or continuous noise emissions (ET sheet D11). These activities are weighted according to whether they are identified as high contributors. Two zones have a high level of concern (1, 4) as there is a major presence of noise emitting activities in these zones. For zones 2, 3 and 5 the activity is qualified as intermediate. Offshore zones 6 and 7 are less affected by noise.

4.4. Other societal issues

4.4.1. Landscapes and cultural heritage

QUALIFICATION OF LANDSCAPES OF HIGH CONCERN

The South Atlantic coastline is made up of a wide variety of coastal landscapes resulting from the geological history of this territory. The Gironde estuary is a unique landscape at national and even European level. The quality of the coastal zone is also a major environmental issue of international interest. Plant endemism is one of the

highest in Mainland France. Four main areas can be distinguished which give structure to the maritime landscapes of the coastline:

- the Charente coastline, including island areas, is composed of soft, rocky coasts, sandy coasts and coastal marshes;
- the sandy coast of Gironde and Landes with its dune landscapes opening out continuously to the west onto the enormity of the Atlantic Ocean and to the east onto the Landes de Gascogne forest;
- the Arcachon bay, which occupies a special place with its peaceful maritime landscapes, where maritime activities (fishing, oyster farming) and tourism are combined;
- the Basque coast, which contrasts with its marked cliffs, where ports alternate (Bayonne, Saint Jean de Luz, Hendaye, etc.), an increasingly significant urbanisation and a few preserved natural areas (the Basque Corniche coastal path, the Abbadia estate).

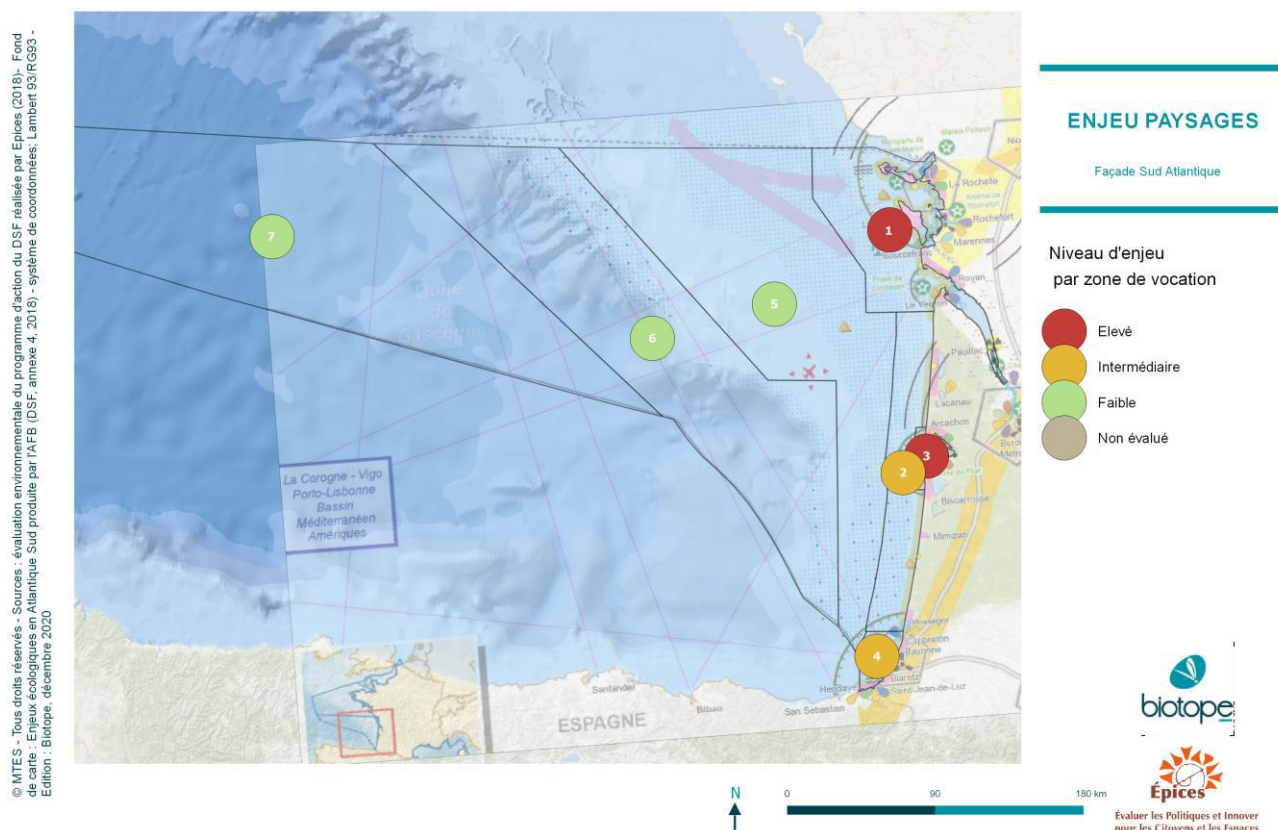
These landscapes have been shaped by the natural elements and then transformed by developments, particularly those linked to tourism. The use of the coastline has been profoundly changed by way of increased urban pressure. They are further impacted by coastal erosion.

The protection of coastal landscape values is decisive for the coastline, especially its very rich natural part. It is essential to take into account the uses and dynamics of the coastline. Spatial planning policies contribute to taking this need into account, in particular through the implementation of regulations and provisions for marine and land environments and the land-sea interface.

The South Atlantic coastline also has a very diverse cultural heritage (lighthouses, seaside resorts, oyster farming villages, historic ships, underwater heritage, etc.) and many sites listed as being of scenic, artistic, historic, scientific, legendary or picturesque interest.

The development of the coastline's heritage and landscape potential is a major issue that contributes to the identity and attractiveness of the territory. Several elements of maritime heritage have been classified or listed and one site has already been awarded the "Grand Site de France" label - the Marais Poitevin - and two other Grand Site operations are underway - the Charente estuary - Arsenal de Rochefort and the Dune of Pilat. The continued classification of remarkable sites ensures reinforced protection. In this respect, the Cordouan lighthouse has been proposed by France for inscription on the UNESCO World Heritage List in 2019, with a view to inscription in 2021 (no inscription in 2020, following the Covid 19 health crisis).

OVERALL SPATIAL DISTRIBUTION AT VOCATION ZONE LEVEL: LEVEL OF CONCERN



The results presented in the map above are based on the number of listed and classified sites, the presence of natural parks (PNN, PNR, PNM), the number of French Grands Sites or UNESCO sites or the number of underwater landscape elements (wrecks, artificial reefs, underwater pathways, diving areas, other). The level of concern is classified as high to intermediate in coastal areas and low offshore. For zones 1 and 3, the concern is high because the landscapes there are more well-known by different protection or classification tools.

4.4.2. Air quality

QUALIFICATION OF THE SPECIFIC FEATURES OF COASTAL AIR QUALITY

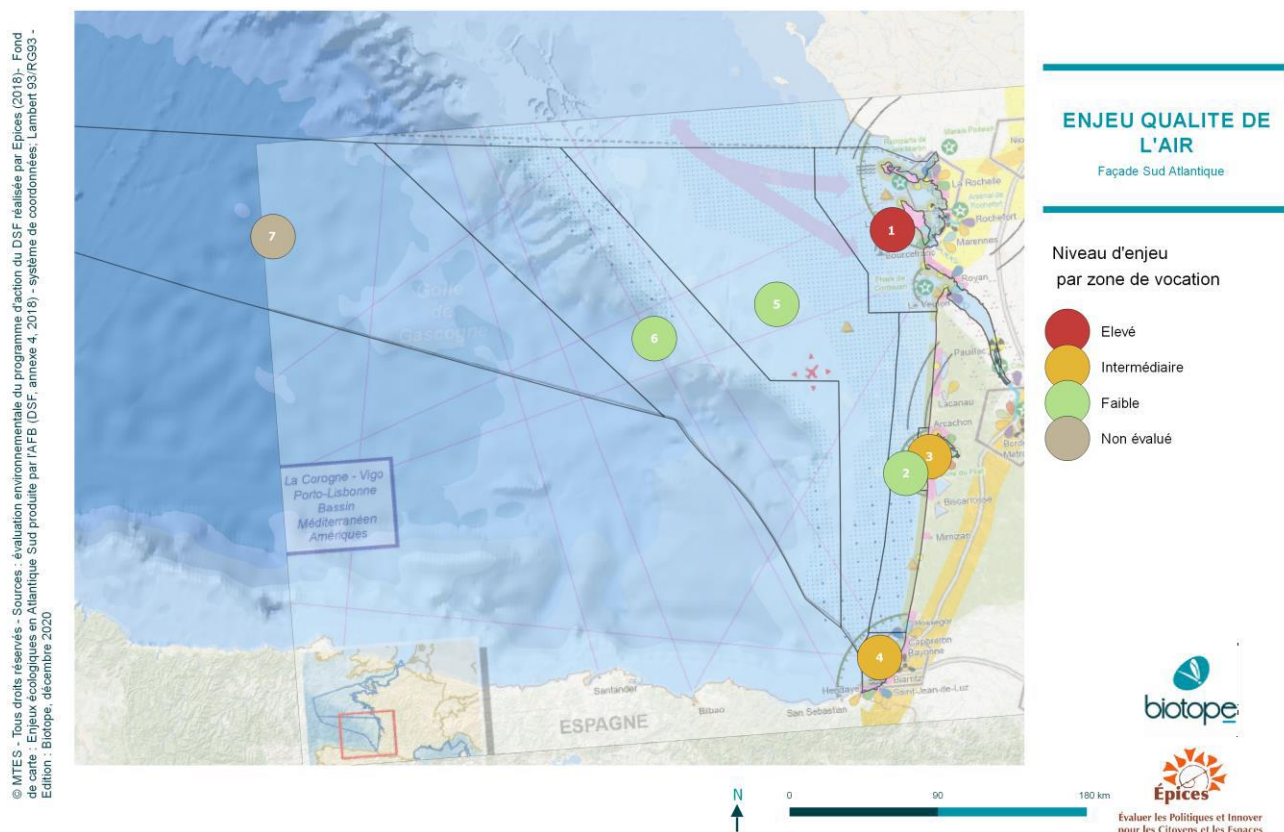
There are many air pollutants, both in gaseous and particulate form. They come from various sources linked to human activities (transport, heating, agriculture, industry, etc.) and natural phenomena (degradation of organic matter, pollens, etc.). Nevertheless, coastal sites differ from non-coastal sites in the same geographical area by certain characteristics:

- westerly winds favour the dispersion of pollutants; this effect could be amplified by the topography (no large relief on the sea front);
- the coastal strip is relatively unindustrialised.

However, ozone concentrations are often higher than inland areas. The difference is even more marked on the islands, especially at night. Several factors may explain this phenomenon. In densely populated coastal areas, air pollutants could react with salt-laden sea air (and more precisely with the chlorine in this salt), leading to high ozone levels. In addition, there may be the effect of coastal breezes: at night and in the early morning, the onshore breeze carries the pollution out to sea. Then, if exposed to solar radiation, ozone is formed above the sea. Later in the day, the sea breeze brings this ozone back to the coast. Ozone could also be formed over the sea, from polluting emissions from ships. The ozone formed would be blown towards the coast by the sea winds. However, ozone concentrations on the Atlantic coast are generally lower than in other French regions.

Atmospheric pollution can be caused by various activities such as maritime transport, human activities on islands or re-emission into the air through sea spray and pollutant vapour that may be present in or on seawater, linked to maritime pollution and/or atmospheric fallout.

OVERALL SPATIAL DISTRIBUTION AT VOCATION ZONE LEVEL: LEVEL OF CONCERN



The results presented in the map above are based on the presence of pollutant-emitting activities: commercial ports, density of maritime traffic or presence of macroalgae development sites. For the zone of high concern (1) at least two of these criteria were obvious. For zones 3 and 4 the issue is classified as intermediate due to a less intense traffic density or the presence of commercial ports and not large ports.

4.4.3. Natural risks

QUALIFICATION OF NATURAL RISKS OF HIGH CONCERN

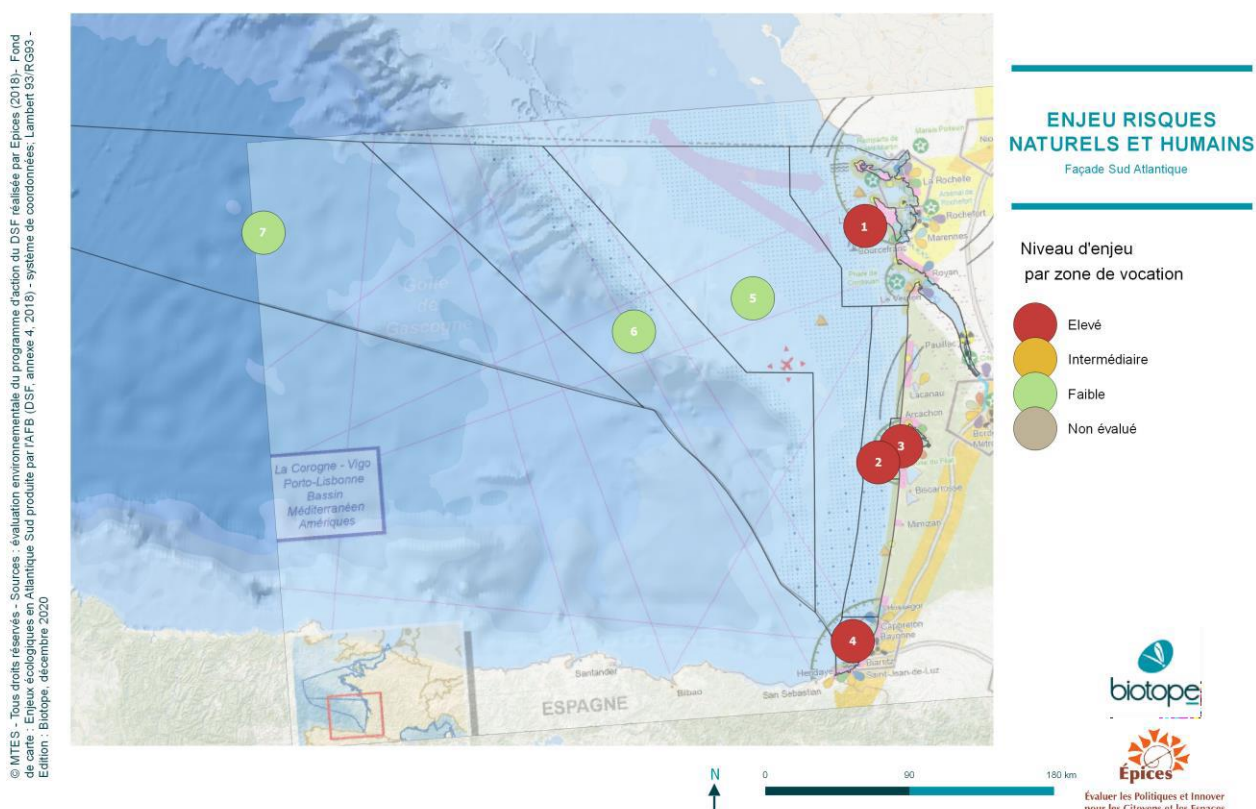
Two natural risks are mainly present on the coastline at the land-sea interface:

- Coastal erosion in areas where the sediment assessment is strongly negative. It occurs as a result of winter storms, marine processes (waves, swell, currents) and meteorological processes (rain, frost and wind). Erosion can lead to a retreat of the coastline or a reduction of the foreshore or beach. The phenomenon is particularly present on the sandy coast of Aquitaine. The islands of Ré and Oléron are strongly subject to erosion on their western coastlines, exposed to the prevailing currents and winds. On the Aquitaine coast, outside the Arcachon bay, erosion concerns many sectors: 52% of the

documented Gironde coastline, several sectors of Landes (alternating with rather stable sectors, which benefit from sand and sediment inputs from the beaches of the north of Gironde thanks to coastal drift) and 68% of the Basque Country's natural coasts (sandy coasts, but also cliffs). The eroding Aquitaine coastline is retreating at a rate of 1 to 3 m per year, and even up to 6 to 10 m per year in some places. Coastal erosion can have a significant impact on natural coastal environments. It leads to losses of ecological functions and biological richness in the retreating areas. The impact can go as far as the disappearance of sometimes rare environments and environments of great ecological interest (wetlands).

— Coastal flooding in the low-lying areas of concern (Poitevin and Charente marshes, at the tip of the Médoc and around the Arcachon bay). Coastal flooding is a sudden and temporary flooding of the coastal zone by the sea, under extreme weather and ocean conditions. There are three types of coastal flooding: by overflowing, by failure of the protection system or by crossings. Coastal flooding can have significant impacts on coastal environments, such as marshes and polders, mainly occupied by agricultural land (grasslands, arable land) and wetlands. The phenomenon can cause damage to these habitats by flooding areas normally beyond salt water and by sharply increasing the salinity of the soil. This can lead to significant disruption of ecosystems.

OVERALL SPATIAL DISTRIBUTION AT VOCATION ZONE LEVEL: LEVEL OF CONCERN



The results presented in the map above are therefore based on the presence or absence of four types of risks (industrial, flooding, coastal erosion, nuclear). Zones 1, 2, 3 and 4 are of high concern because 3 out of 4 types of risks are present. The zones with a low level of concern are located far from the coast.

4.4.4. The organisation of environmental knowledge and research

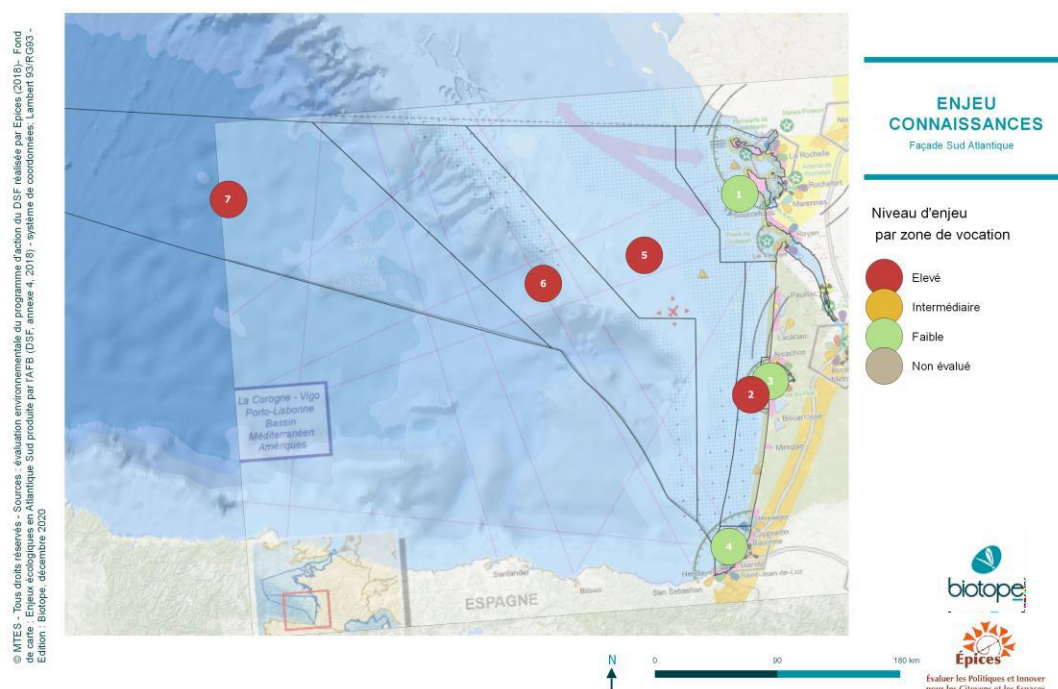
QUALIFICATION OF KNOWLEDGE ISSUES

Various programmes aimed at collecting information on the various problems of the South Atlantic coastline are carried out. Data acquisition programmes concerning the natural marine heritage and the evolution of the coastline are developed. The development of participatory science also makes it possible to provide new data, raise new questions and create a new kind of coastal warning and monitoring network that is in full development.

Various interdisciplinary research programmes are carried out by the various research organisations on the coast (the joint research units of the CNRS and the Universities of Bordeaux and La Rochelle, the University of Pau and the Pays de l'Adour, IFREMER, IRSTEA, INRA and the LabEx COTE). With the aim of collaborative research work integrating the major issues of the coastal territory, a network bringing together scientific, consultative, associative and financial partners has been created on the Aquitaine coast (Aquitaine Coastal Research Network). Finally, a project for an Aquitaine oceanographic centre aims to bring together various coastal research stakeholders in order to create a new large-scale marine station. The federation of regional stakeholders via these networks and programmes is a major issue that will enable the proper coordination of research at coastline level and the response to local problems.

In addition, a major programme ("investments for the future") for multidisciplinary scientific innovation has been launched. Concerning industrial and technological innovation, many regional or territorial clusters (business combinations) linked to the sea and the coast have been set up. The New Aquitaine region is bringing together these initiatives and stakeholders in a "blue growth" cluster, launched in February 2018.

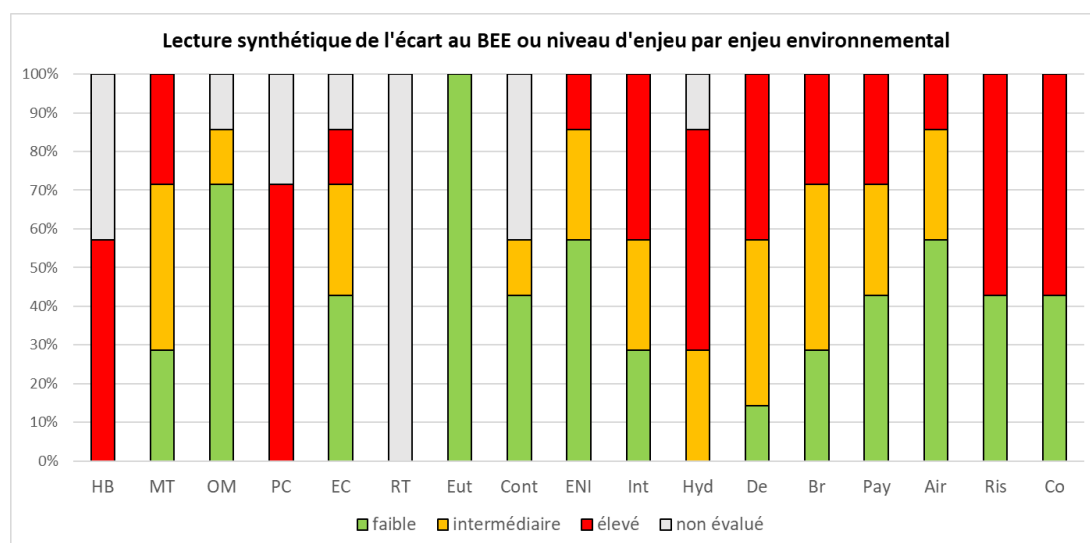
OVERALL SPATIAL DISTRIBUTION AT VOCATION ZONE LEVEL: NEED FOR KNOWLEDGE LEVEL OF CONCERN



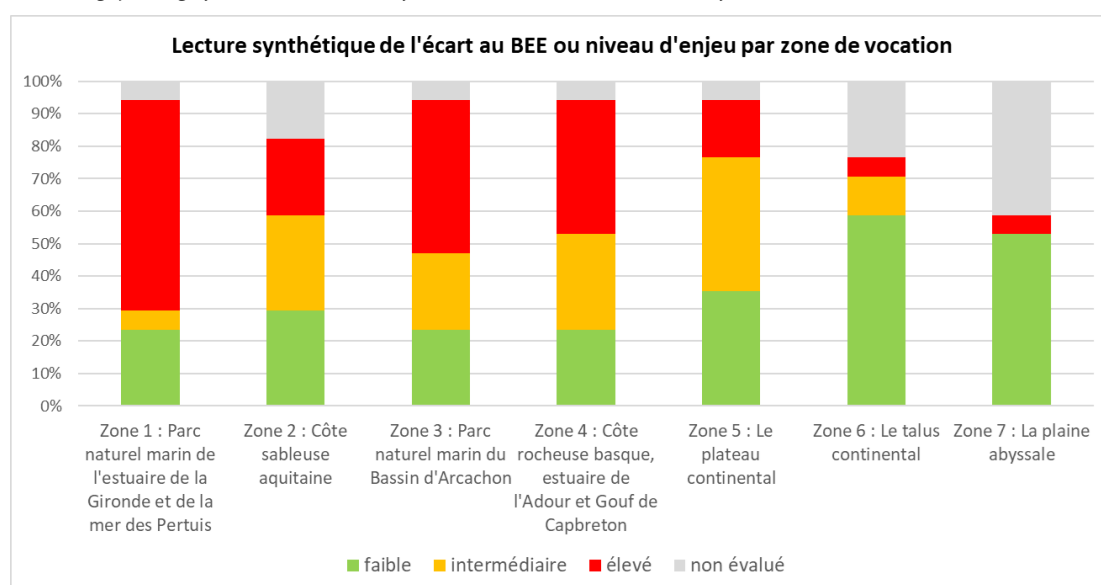
The results presented in the map above are based on four criteria: the presence of nature parks, the area covered by N2000 zones, the presence of nature reserves and the presence of wind farms. VZ 1, 3 and 4 are covered by a major presence of tools allowing a good knowledge of the zone, hence a high concern for these three zones. Less knowledge seems to be available for the other zones, where the level of knowledge is categorised as low.

4.5. Summary of the environmental issues of the coastline

At the end of this section dealing with the interpretation of environmental issues on the SA coastline, the following two graphs can be produced concerning the GES deviation or the level of concern, the first constituting an interpretation by environmental issue and the second an interpretation by vocation zone.



The percentages are relative to the number of vocation zones (i.e. 7). For example: for benthic habitats, the GES gap is high for more than 50% of the vocation areas, the other half could not be assessed.



The percentages are relative to the number of issues (i.e. 17). For example: in zone 1, about 75% of the issues have an GES deviation or a high issue level.

The first graph shows that the main issues for the coastline concern fish and cephalopods, benthic habitats, then hydrographical conditions, risks and knowledge, where the GES deviation appears high for more than 50% of the vocation zones. Then, the issues of marine mammals and turtles, integrity of the seabed, noise, waste and landscape also present significant levels of concern (intermediate or high) in a majority of the zones.

The issues of air quality, non-indigenous species and commercial species are less significant on the SA coastline, with very few zones showing a high level of concern or a high deviation from good status. The issues related to sea birds and eutrophication show a majority of zones with a low level of concern or a low deviation from good status. The same applies to contaminants, but it should be noted that almost half of the zones could not be assessed for this last issue.

It should be noted that food webs are the environmental issue on which the most effort should certainly be focused on in the future (as it was not possible to define the deviation from good status).

In general, it should be noted that the reliability of the assessment of issues related to the biocoenosis is generally less good than the reliability of issues related to pressures or other societal issues.

The second graph shows that zones 1, 3 and 4 appear to have the most significant environmental issues, with the majority of environmental issues having a high level of concern or high deviation from good status.

There are less environmental issues with a high deviation from good status or a high level of concern in zones 2 and 5. In the same way, the offshore zones 6 and 7 appear to present the most issues with a low level of concern or a low deviation from good status; however, it should be noted that a significant proportion of the issues could not be assessed in these zones; the issue linked to knowledge therefore appears to be significant.

5. Impact analysis

5.1. Situation in the absence of a SBS

The South Atlantic coastline has a great wealth of marine and coastal habitats. The Bay of Biscay is particularly representative of the sedimentary habitats that occupy more than 95% of the continental shelf seabeds. The exposed coastal zones are under oceanic influences and the more sheltered areas (inlets, bays and estuaries) are reservoirs of biodiversity (eelgrass beds, honeycomb worm reefs, salt marshes, etc.). Therefore, the diversity and richness of these environments are conducive to the development of functional zones for marine species.

The economy of the SA coastline is dynamic, particularly the maritime economy. New Aquitaine is a noteworthy feature of the regional economy and generates more than 49,000 jobs, i.e. 2.1% of regional employment.

As we have seen in the previous section, many environmental issues in the South Atlantic are of concern:

- a significant GES deviation for benthic habitats, fish and cephalopods, and to a lesser extent for marine mammals, and an unassessed GES for food webs;
- high concern for hydrodynamic conditions, risks and knowledge;
- also significant concern for seabed integrity, waste and landscapes.

This situation of environmental issues results in particular from the numerous pressures exerted by the existing socio-economic activities on the coastline. According to the Sea Basin Strategy, the main pressures are as follows:

- the most significant physical pressures correspond to coastal artificialization, erosion of coastal seabeds (resulting from anchoring on protected habitats) or of seabeds, the integrity of which may be affected by extractions (extraction of aggregates, dredging, beach nourishment) or by certain fishing practices. Issues related to noise emissions (from maritime traffic or underwater works) and the accumulation of waste at sea are also significant;
- the most significant chemical pressures that can be listed are the inputs of chemical compounds and active substances impacting the environment, both from activities such as agriculture or industry and from the consequences of highly urbanised areas (wastewater discharge). The input of waste or contaminants in connection with ships transiting the Bay of Biscay can also be mentioned;
- finally, with regard to biological pressures, the introduction of invasive species and the selective extraction of species by both professional and recreational fishing are the pressures that have the greatest impact on the South Atlantic ecosystem.

These pressures result from the most developed activities on the SA coastline. At the forefront of these are:

- **seaside activities and coastal tourism**: The SA coastline has 214 beaches, 90 of which are in Charente-Maritime. The Gironde has the largest number of swimming areas (the Bay of Biscay marine sub-region represents 31% of the swimming areas on the coast of mainland France). The Bay of Biscay marine sub-region has 23% of the beaches used in mainland France.
 - **aquaculture and shellfish farming**: New Aquitaine is **the leading shellfish-growing region in Europe** ; it includes the two oyster-growing areas of Marennes-Oléron and the Arcachon bay, representing a turnover of almost €300 million. In addition, there is a more modest mussel farming activity in Charente-Maritime. **Marine fish farming is also present**, although much less developed.
 - **professional fishing**: The coastline is characterised by a significant offshore fishing activity concentrated in the maritime district of Bayonne, even if, overall at **coastline level, small-scale coastal and estuarine fishing is dominant**. Moreover, landings are mainly made up of species with high added value (sole, sea bass). The fishing activity is primarily multi-purpose, i.e. the ships carry out several different trades during the year. The professional activity of foot fishing is mainly done in Charente-Maritime (64-foot fishermen who target clams, tellina, oysters and bait), and in the Arcachon bay for cockles, clams and bait
- recreational fishing**: Recreational foot fishing is very important on the South Atlantic coast and targets many species. It has some specific local conditions such as foot fishing with nets or fish locks. Shore fishing, boat fishing and underwater hunting also take place on the coastline.
- **marine aggregate extraction**: deposits and main aggregate flow management is carried out at the Bay of Biscay. **Out of 5 sites in the Bay of Biscay**, 2 plots (Platin de Grave and Chassiron) are currently authorised for the extraction of siliceous materials, mainly for the construction industry. An exclusive research permit has been granted off the **mouth of the Gironde**. 190 direct jobs in the Bay of Biscay have been identified, as well as 17 material landing and processing facilities and 5 unloading ports.
 - **maritime transport and ports**: The SA coastline has **two large marine ports** that constitute a gateway for major international flows: Bordeaux and La Rochelle, organised in an Atlantic interport cooperation (with Nantes Large Marine Port). The coastline also includes **two decentralised port centres**: the port of Bayonne and the port complex of Rochefort Tonnay-Charente. In 2014, the commercial ports of the coastline handled **6.5% of all goods at a national level**. The two large marine ports each generate around **18,000 direct, indirect and generated jobs**. Port activities represent **numerous direct and indirect jobs** representing a wide variety of trades in services to ships or goods, and in industrial services.
 - **energy production**: At the SA coastline, **no marine renewable energy projects are currently in commercial operation or even in advanced development**. However, several studies have identified the most favourable sectors for the development of maritime renewable energy in terms of

wind power, estuarine and river tidal turbines and wave power, taking into account technical and environmental constraints and the need to co-exist with other uses. The sandy coast is particularly favourable for these installations due to its exposure to swell and marine currents. Numerous experiments are also underway, particularly on estuarine tidal turbine and wave energy production technologies. A process of characterisation of the wave potential in the Basque Country has been initiated. In terms of offshore wind power, **a project for a wind farm off the coast of Oléron, which has been under study for several years, has been included in the multiannual energy programme and will therefore be relaunched in 2021** with a view to launching a call for tenders in 2022 and awarding a contract in 2023. **Large oil fields lie beneath the waters of some of the coastal lakes of Aquitaine**, such as Cazaux/Sanguinet and Parentis. The latter is France's largest oil field; in the mid-2000s, its total production amounted to almost 30 Mt (million tonnes). The **Arcachon bay is also the site of oil drilling** with several deposits being exploited (more than 150,000 tonnes per year).

In order to try to clarify the progression of environmental issues in the absence of a SBS, we can try to analyse the trend of these pressure-producing activities. The available data and indicators on the recent progression of these activities have been researched (see details in annex) and the summary that can be made in terms of trends is given in the table below.

Activity	Summary	Summary reliability
Seaside activities/Coastal tourism	↗	+
Agriculture	↘	++
Aquaculture	→	+++
Coastline artificialization	↗	+
Underwater cables	↗	+
Shipbuilding	→	++
Defence	↗	++
Extraction of materials	↘	++
Industries	↘	+
Recreational sailing	↗	++
Recreational fishing	↗	++
Professional fishing	↘	++
Energy production	↗	+
R&D	→	+
Maritime public works	↘	+
Maritime transport	→	+

Two important findings emerge from this table:

— on the one hand, some of the most significant activities on the coastline have been declining in recent years: professional fishing, extraction of materials, industry in particular, and others have been growing: seaside activities, coastline artificialization, recreational fishing, energy production.

— on the other hand, the reliability of these trend estimates remains limited, in the absence of an effective system for monitoring the progression of pressures exerted by socio-economic activities, which has yet to be developed (see part 7 of this report).

It could be deduced from the first finding that, in the absence of a SBS, pressures will continue on the marine environment (in connection with the growing trend of coastal artificialization, the development of offshore energy production zones, or maritime transport, tourist, leisure and sailing activities, for example), leading to a deterioration of environmental issues. At the same time, the observed decline in other activities (fishing, industry, material extraction) could, however, help to reduce certain pressures. In any case, such a forecast, based on a simple extension of recent trends, is nevertheless very unreliable, for at least two reasons:

(1) the health crisis experienced worldwide in 2020 has had a major impact on the dynamics of many economic activities (e.g. passenger transport), and it is very difficult to know now whether a return to the previous dynamics will take place or whether there will be a lasting break in the trend;

(2) the level of uncertainty in the data and indicators mentioned above also makes this exercise of extending past trends very uncertain.

5.2. Impact analysis on environmental issues

5.2.1. Impact of the different actions of the action plan

In the tables below, positive impacts are shown in green (denoted P), uncertain impacts in yellow (denoted I) and negative impacts in red (denoted N).

PROFESSIONAL FISHING

Action code	Action title	HB	MT	OM	PC	EC	RT	EUT	CONT	ENI	Int	HYD	De	BR	PAY	AIR	RIS	CO
01-PCH-A01	Promote research into technical innovation and better conditions for fishing gear use	P	P	P	P	P	P						P			P		P
01-PCH-A02	Facilitate and promote strategic, local and sustainable management of fishing activities and resources				P	P	P											P
01-PCH-A03	Encourage the dynamics of local sectors to highlight all fishing products and marine cultures	I	I	I	I	I	I		I	I	I	I	I					
D01-HB-OE06-AN2	Re-examine exonerating fishing authorisations and dredge fishing authorisations in the 3-mile band	P			P	P	P				P							P
D01-HB-OE10-AN2	Contribute to strengthening the awareness of the sensitivity of deep-sea habitats in the Atlantic at community level	P					P											
D01-OM-OE01-AN1	Identify and reduce the risks of incidental catches for each of the species of sea birds and marine mammals of community interest at coastline level.		P	P		P	P											P
D03-OE02-AN1	Identify priority local stocks for which management could be improved, and draw up corresponding management plans	P	P	P	P	P	P											P
D04-AN1	Contribute to a better management of extractions of forage species at European level	P	P	P	P	P	P											P

The new actions related to marine fishing are likely to generate 52 impacts spread over 13 different issues. The nature of these impacts is largely positive (40).

The uncertain impacts (11) depend on a single action: the nature of the labels and quality signs promoted (01-PECH-A03). The uncertain impacts will initially be positive. However, they remain low and indirect for this action, which instead aims to boost existing short circuits. The process of developing the actions has made it possible to integrate the environmental dimension: environmentally friendly labels will be favoured.

The positive impacts should therefore allow a reduction in pressure on commercial species, an improvement in knowledge which will lead to proposals for changes in equipment limiting incidental catches (MM, OM), more selective (PC, RT), less impacting on the seabed (HB), less polluting (Air), favouring the recovery of lost fishing nets (MT, PC) and waste (De), improving the awareness of functional fishing areas (PC) and deep-sea habitats (HB), and the preservation of trophic balance (RT).

AQUACULTURE

Action code	Action title	HB	MT	OM	PC	EC	RT	EUT	CONT	ENI	Int	HYD	De	BR	PAY	AIR	RIS	CO
02-AQU-A01	Plan future aquaculture vocation zones on the coastline	N		N	N	I		I	N	N	N	N	N		I			P
02-AQU-A02	Clean up shellfish wastelands						P	P				P	P					
02-AQU-A03	Secure the examination procedures for applications for the authorisation of aquaculture farms	P		P	P	P		P	P	P	P	P	P		P			P

The new socio-economic actions related to aquaculture are likely to generate 28 impacts spread over 13 different issues. The nature of these impacts is largely positive (17).

The intensity of potentially negative impacts (8) will depend on the actual implementation of the planned aquaculture areas (02-AQU-A01) and the definition of the projects (location of sites, stocking density, methods used, etc.). These negative impacts should be put into perspective: the objective of the SBSB actions is to anticipate potential development areas, to allow the sectors with the lowest concern to be selected and to better understand future impacts. Therefore, the planning of aquaculture activity finds a form of synergy with the socio-economic action 02-AQU-A03 that allows for the reduction of these negative impacts.

Uncertain impacts (3) are also related to the future development of aquaculture areas, which may lead to unknown effects at this stage on some natural stocks, eutrophication and on the landscape.

The process of developing the actions has made it possible:

- to recall in each of the 02-AQU-A01 sub-actions that they must consider the compatibility with the environmental targets of the SBSB. The fact that the new SRDAMs will be integrated into the next SBSB can be seen as a Avoid and Reduce measure with regard to this expected compatibility;
- and to integrate in 02-AQU-A02 that cleaning works must be adapted to environmental issues. Indeed, this action, if it initially generates

an improvement in water circulation conditions this can temporarily have negative effects on hydrographical conditions (turbidity, sedimentation) and on benthic habitats (HB) depending on the cleaning techniques: it is therefore important to take into account the issues present locally and the nature of the work to be carried out should be adapted accordingly.

The AP actions in relation to aquaculture should enable anticipation and control of the expected impacts of aquaculture development, on the one hand, and provide the tools and knowledge necessary for investigating authorities to carry out appropriate environmental assessments during the implementation of projects, on the other.

PORTS AND MARITIME TRANSPORT

Action code	Action title	HB	MT	OM	PC	EC	RT	EUT	CONT	ENI	Int	HYD	De	BR	PAY	AIR	RIS	CO
03-POR-A01	Develop and transform ports to serve the territorial economy by including them in the ecological, energy and digital transitions								P				P			P		
03-POR-A02	Develop flows for a better connection of ports	I	I						I	I	I	I		I		I		
03-POR-A03	Promote synergies between ports in the region																	
D01-MT-OE03-AN1	Identify and reduce the risk of collision between maritime transport and marine mammals on the Atlantic coastline level		P															
D08-OE05-AN1	Limit/prohibit discharges from open-loop scrubbers into specific areas	P	P	P	P	P	P		P									

The new actions related to ports and maritime transport are likely to generate 19 impacts spread over 13 different issues. The impacts are largely positive (11). The remaining impacts are uncertain (8).

The development of the maritime link between the major European ports and the coastline ports (03-POR-A02) may tend to increase the maritime traffic of goods vessels: risk of impacts on marine mammals (collision, particularly for the fin whale) as well as an increase in noise and the risk of contamination and air pollution. In the case of necessary developments, there may be impacts on the integrity of the seabed, hydrodynamic changes and benthic habitats (multimodal logistics platforms, port capacity, etc.).

Environmental action D01-MT-OE03-AN1 reduces the risk of collision in relation to 03-POR-A02 and is therefore a reduction measure for action 03-POR-A02 (see chapter 6).

Environmental action D08-OE05-AN1 contributes to limiting pollution and aims to improve the quality of water and ecosystems. The socio-economic action 03-POR-A01 should lead to an improvement in air quality (AIR), a pooling of logistic resources allowing a better environmental integration (De, Air, cont) and a better organisation of spaces (limits overloads, displacements etc. without increasing the rate).

The process of developing actions has made it possible to specify that the port development plans, and strategic projects (03-POR-A01) will be carried out with respect to the natural areas of concern, and that the reflections on the developments planned by action 03-POR-A02 will integrate the existing buildings and infrastructures.

SHIPPING AND NAUTICAL INDUSTRIES

Action code	Action title	HB	MT	OM	PC	EC	RT	EUT	CONT	ENI	Int	HYD	De	BR	PAY	AIR	RIS	CO
04-IND-A01	Support the development of the naval and nautical sectors								P				P	P				P
04-IND-A02	Integrate the shipping and nautical sector into the circular economy								P				P			P		
04-IND-A03	Contribute to the dialogue between the State and the sector in terms of support for R&S and make State support more understandable, particularly in terms of clean propulsion and eco-design								P				P			P		P
04-IND-A04	Support the digital transformation of companies, the production chain (parent companies and subcontractors) and the shipping and nautical industries' products																	P

The new socio-economic actions related to the shipping and nautical industry are likely to generate 12 impacts spread over 5 different issues. The impacts are all positive.

The process of drawing up the sheets made it possible to include, in sub-action 1 of action 04-IND-A02, the intended use of existing industrial wastelands to limit the consumption of space within the framework of the strategy for setting up recycling centres.

The positive impacts relate to the improvement of knowledge by supporting innovation (Co), a reduction in waste, noise and pollutants (Cont, De, Air, Br). Note that these effects should be positive for water quality and the environment and therefore beneficial for the entire food web.

MARINE RENEWABLE ENERGY

New actions related to Marine Renewable Energy are likely to

Action code	Action title	HB	MT	OM	PC	EC	RT	EUT	CONT	ENI	Int	HYD	De	BR	PAY	AIR	RIS	CO
05-EMR-A01	Prepare the call for tender for the offshore wind project off the coast of Oléron	N	N	N	I	I	I		N	I	N	I		N	I	P		P
05-EMR-A02	Support the development of wave, tidal and floating wind energy systems with regard to the coastal and maritime potential of the coastline	N	N	N	I	I	I		N	I	N	I		N	I	P		P
D01-OM-OE02-AN1	Prefigure a national coordination body for coastline scientific councils (CSC) on wind energy at sea			P														P

generate 31 impacts across 14 different issues. The nature of these impacts is either negative (12), uncertain (12) or to a lesser extent positive (6).

As with aquaculture (see above), the negative and uncertain impacts result from the desire to develop MRE projects in SA, in accordance with the guidelines and objectives set out in the multiannual energy programme adopted in 2020: the implementation of MRE projects will have negative impacts on habitats, marine megafauna (in the construction phase) and birds (in the operational phase, loss of hunting area in particular), seabed integrity and noise, and uncertain impacts on the landscape, NIS and commercial fish and species (depending on the mode of operation chosen). Furthermore, the development of MREs will have positive impacts on air quality and knowledge.

Action 05-EMR-A02 foresees the installation of a pilot farm which may lead to negative effects on benthic habitats and sea birds in particular; these sites are nevertheless intended to improve knowledge, including impacts on biodiversity.

The intensity of negative and uncertain impacts will depend on the actual implementation of MRE projects and their definition (location of sites, mode of operation, methods used, etc.). The SBSB action plan provides the best possible support for these projects:

- The consultation proposed in action 05-EMR-A01 includes environmental stakeholders (part of the CMF Standing Committee and Specialist Commission);
- Sub-Action 1 of action 05-EMR-A01 provides for the establishment of a scientific panel of recognised experts who can, for example, define the protocols to be carried out in the context of risk reduction in order to establish astute environmental diagnoses of the use of suitable areas by marine mammals and sea bird species
- The management and monitoring committee will make it possible to coordinate actions at coastline level and ensure consistency with projects carried out on other coastlines, for example. (At this stage, there is only one wind farm project on the SA coastline);
- Action D01-OM-OE02-AN1: a national coordination body to improve knowledge of the impacts of MRE projects on the components of the natural marine environment and to share feedback on Avoid and Reduce experiences

It should also be noted that several environmental actions will provide more precise knowledge of the areas of concern for better consideration when defining projects: D01-PC-OE05-AN1: Demarcation of functional fishing areas and their conservation; D01-OM-OE02-AN1; Initiate a knowledge acquisition programme to limit the impacts of offshore wind farms.

MARINE AND ESTUARINE SEDIMENTS

Action code	Action title	HB	MT	OM	PC	EC	RT	EUT	CONT	ENI	Int	HYD	De	BR	PAY	AIR	RIS	CO
06-SED-A01	Develop and implement the DOGGM in a manner consistent with the Regional Quarry Plan (SRC)	I			I	I	I	I	I		I	I		I				P
D08-OE06-AN1	Encourage and support the implementation of shared dredging and promote the sustainable creation of a sediment recycling industry adapted to the territories	P	P	P	P	P	P		P		P							
D08-OE06-AN2	Study, assess and reduce the sources of endocrine disruptors displaced at sea by the dumping of dredged sediments								P									P

The new actions related to marine aggregates extraction are likely to generate 20 impacts spread over 12 different issues. The nature of these impacts is either positive (11) or uncertain (9).

The SBSB's action is aimed at better awareness of impacts (planning, improving knowledge and methodological guidance for impact studies), reducing pressures: pollution, destruction of the seabed (HB, MT, OM, PC, EC, RT, Int, Cont) by means of shared actions and by reusing dredged sediments.

The uncertain impacts are linked to the DOGGM (Guidance document for the sustainable management of marine aggregates) objectives: if the DOGGM leads to additional extractions compared to as things stand, the impacts will be potentially negative on HB, PC, EC, RT, Eut, Cont, Art, BR; if the DOGGM does not lead to additional extractions compared to as things stand, or even favours extraction areas that have less impact than those currently used, the impacts may be positive on these same issues.

It should be noted that the governance proposed for the preparation of the DOGGM includes the participation of members who guarantee the preservation of issues relating to biodiversity and the marine environment (DREAL NA, DDTM, IFREMER, UNICEM, Gironde estuary and Pertuis sea Marine Nature Park, Monitoring Centre of the New Aquitaine coast depending on the sector), and that the DOGGM will endeavour to reconcile extraction activity with the environmental targets of the SBSB.

SAILING AND WATER SPORTS

Action code	Action title	HB	MT	OM	PC	EC	RT	EUT	CONT	ENI	Int	HYD	De	BR	PAY	AIR	RIS	CO
07-PLA-A01	Establish a less impactful management policy for anchoring and ports at the South Atlantic coastline	P								P	P		I		I			P
07-PLA-A02	Expand dynamic space management approaches and make them viable (docked or transient)	P											P					
07-PLA-A03	Make users aware of good practices (fishing, sailing, environment)	P	P	P	P	P	P		P		P		P					P
D01-MT-OE01-AN1	Strengthen the supervision and regulation of outdoor sports and leisure activities affecting marine mammals and of commercial marine mammal watching activities.		P															
D01-OM-OE06-AN2	Structure the practice of coastal and marine sports and leisure activities (information, raising awareness and regulation) on the issues of sensitivity of species and environments	P	P	P					P				P	P				
D03-OE03-AN1	Harmonise and strengthen the regulations on recreational fishing (subject to DPMA (Directorate of Maritime Fisheries and Aquaculture) in accordance with the conclusions of the CIMER of December 2019] and to raise awareness among fishermen of its implementation	P	P	P	P	P	P						P					P
D08-OE04-AN1	Identify and equip the careening areas of marinas, anchoring areas and shipyards with effluent treatment systems. Make managers and users aware of good careening practices.	P	P	P	P	P	P		P									
AT-03	Develop an application integrating regulations and information related to spaces, for recreational sailing use	P	P	P	P	P	P						P	P				

The new actions related to sailing and water sports are likely to generate 49 impacts spread over 13 different issues. The impacts are largely positive (46). The remaining impacts are uncertain (2).

The uncertain impacts are related to the work on Light Equipment Anchoring Areas (action 07-PLA-A01): although they may lead to impacts on benthic habitats, the landscape, waste and the integrity of the seabed, this action should lead to a reduction in the impact of outer anchoring activity on benthic habitats through better spatial organisation (HB, ENI, Art, PAy) and the use of fixed, ecological and alternative anchorings in areas of concern. Therefore, the overall impacts are considered positive for this action on the majority of issues. The impacts on the landscape and on waste remain uncertain but are largely needs to be looked at in context as anchoring already exists in these areas.

The other actions should allow for a better organisation of spaces (07-PLA-A02), and therefore a limitation of overloading, displacements, etc. without increasing the number of visitors, raising the awareness of the public and the socio-economic stakeholders linked to tourism and sailing to environmental issues (07-PLA-A03 and AT-03), therefore generating a better awareness of environmental issues in the context of sailing activities, a reduction in the disturbance of marine mammals (D01-MT-OE01-AN1) and sensitive species (D01-OM-OE06-AN2), a reduction in pressures linked to recreational fishing (D03-OE03-AN1), and a reduction in pollutants (D08-OE04-AN1).

COASTAL DEVELOPMENT AND CHANGE

Action code	Action title	HB	MT	OM	PC	EC	RT	EUT	CONT	ENI	Int	HYD	De	BR	PAY	AIR	RIS	CO
08-TOU-A01	Promote sustainable coastal tourism, particularly through town planning documents	P	P	P	P			P	P		P		P		P		I	P
08-TOU-A02	Support sustainable development and management projects to improve the reception and mobility of coastal territories	P	P	P				P			P		P			P		P
09-RSQ-A01	Promote an integrated approach to coastal risks and preserve the natural environments that contribute to a dynamic and balanced functioning of the coastline	I		I							I	I					P	P
09-RSQ-A02	Establish a communication plan on coastal risks with widely circulated, clear and educational messages																P	P
11-PAY-A01	Be familiar with and communicate the ecological and heritage value of coastal landscapes														P			P
11-PAY-A02	Identify heritage buildings threatened by the evolution of the coastline																	P
11-PAY-A03	Continue the policy of preservation and promotion of symbolic coastal sites	I		I									I		P			P
11-PAY-A04	Improve the continuity of the "coastal path" pedestrian right of way in New Aquitaine			I									I		I			
15-AT-A02	Promote concerted spatial planning			I				I							I			
D01-HB-OE06-AN3	Promote better "up-front" knowledge of the impacts of operations to reduce the vulnerability of coastal areas	P									P	P			P		P	P
D01-OM-OE05-AN1	Identify, maintain and restore mediolittoral and functional sea bird habitats that are degraded or exposed to coastal habitat compression.	P		P	P	P	P				P	P			P		P	P
D06- OE01 -AN1	Develop a strategic vision on coastline artificialization with the aim of moving towards "zero net artificialization"	P	P	P	P	P	P				P	P			P		P	P

The new actions related to coastal development and change are likely to generate 68 impacts spread over 15 different issues. The impacts are largely positive (54). The remaining impacts are uncertain (14).

The first two actions lead to positive impacts on improving tourism management and controlling the number of visitors to natural sites (taking into account the load capacity), as well as managing practices. The reduction of pressures on the coastline may, however, lead to effects from these activities transferring over to other sectors, which will be important to monitor. The process of developing the actions has made it possible to integrate this notion into action sheet 08-TOU-A01. Uncertain effects (which would be positive) can also be brought on by this action if erosion/submergence phenomena are integrated into the considerations. In this respect, synergy with 09-RSQ-A01 should be sought.

The 2 risk-related actions should lead to a reduction of natural risks and a restoration of natural environments. Although the actions are mainly oriented towards strategic retreat and flexible management of the coastline, and therefore, at first glance, positive for the environmental issues, at this stage it is not possible to predict the development solutions that will be chosen, hence the uncertain effects. In addition, the strategic retreat could impact on new areas of concern. These two actions should be compared with action D01-HB- OE06-AN3 which aims to study and assess the impacts of operations to reduce the vulnerability of coastal areas in a better way.

The four actions relating to landscapes, sites and heritage should lead to a positive impact by improving knowledge of heritage issues and therefore their awareness. The promotion of certain sites may lead to an increase in visitor numbers, which may have an impact on habitats, birds and waste in particular. At the same time, the appeal of new tourist sites can reduce the number of visitors to the most popular sites and reduce their impact. Hence the uncertain

impacts at this stage. The implementation of the coastal path may also lead to people visiting previously unused sites, with disturbance to coastal species (especially OM).

Action 15-AT-02 leads to uncertain impacts in relation to the possible development of onshore activities, to be linked to a better organisation of space.

The process of developing the actions has made it possible:

- to specify that action 11-PAY-A02 will be carried out in close connection with action sheet 09- RSQ-A01 to identify the environmental issues of each territory in order to propose less impactful route solutions;
- to specify in action 11-PAY-A04 that this situational analysis will take into account the progression of environmental and landscape issues, ahead of the potential work phases, in order to provide solutions to avoid the remarkable species and habitats identified at the time or reduction measures to limit the impacts.

Furthermore, the uncertain impacts are reduced by action D01-OM-OE05-AN1, which should enable the protection and restoration of bird species habitats and intertidal and mediolittoral habitats (positive impacts on OM, but also on fish PC, EC, and the entire food web RT), and by action D06- OE01-AN1, which aims to move towards a "zero artificialization" objective.

MARITIME SAFETY AND SECURITY

Action code	Action title	HB	MT	OM	PC	EC	RT	EUT	CONT	ENI	Int	HYD	De	BR	PAY	AIR	RIS	CO
10-SEC-A01	Maintain existing response capacities particularly by capitalising on feedback, training and network life	P	P	P	P	P	P		P				P					
10-SEC-A02	Mobilise available knowledge to improve and optimise sailing conditions																	
10-SEC-A03	Optimise the coastline monitoring framework																	

Of the three new socio-economic actions related to maritime safety, only one is likely to have an impact on environmental issues. All 8 potential impacts are positive. The action focuses on the fight against the risks of pollution, leading to a reduction in the risk of impact on habitats and marine fauna.

KNOWLEDGE AND RESEARCH

Action code	Action title	HB	MT	OM	PC	EC	RT	EUT	CONT	ENI	Int	HYD	De	BR	PAY	AIR	RIS	CO
12-RCO-A01	Rely on existing structures to share knowledge and promote the good practices implemented in each territory and galvanise exchanges	P	P	P	P	P	P		P				P					P
12-RCO-A02	Develop and promote knowledge on the maritime economy																	P
12-RCO-A03	Optimise the use of nautical and scientific tools to acquire and share knowledge about the marine environment																	P
12-RCO-A04	Facilitate networking of stakeholders and sharing of knowledge, in particular by relying on the existing governance																	P
12-RCO-A05	Set up specific support for the SBSDs																	P

The new socio-economic actions related to research and knowledge activities are likely to generate 13 impacts spread over 9 issues. The impacts are exclusively positive. They obviously focus on an improvement in knowledge, its dissemination, sharing and promotion, which will indirectly lead to a better awareness of the issues related to biodiversity in particular.

These actions will also generate better knowledge of the relationships between socio-economic activities and their possible interaction with the natural environment, which should make it possible to move towards a reduction in pressures: at this stage, however, these impacts are too uncertain and indirect: only the knowledge issue has been noted.

INNOVATION

Action code	Action title	HB	MT	OM	PC	EC	RT	EUT	CONT	ENI	Int	HYD	De	BR	PAY	AIR	RIS	CO
13-Innovation-A01	Unite the ambitions of the stakeholders through a regional maritime cluster																	P

A single new action related to innovation: it is likely to generate 1 positive impact with regard to knowledge, by promoting exchanges and communicating on the aid available for innovation. The impacts that will arise indirectly from this action are too uncertain at this stage to be noted here.

TRAINING, AWARENESS AND ATTRACTIVENESS OF NAUTICAL PROFESSIONS

Action code	Action title	HB	MT	OM	PC	EC	RT	EUT	CONT	ENI	Int	HYD	De	BR	PAY	AIR	RIS	CO
14-FOR-A01	Promote awareness of nautical professions to attract a new public to the maritime sectors																	
14-FOR-A02	Consolidate and develop training offers																	
14-FOR-A03	Bring supply and demand of maritime jobs together and develop bridges																	
14-FOR-A04	Establish an incentive framework and tools to promote the recovery of small-scale activities, in particular by making it easier to establish first-time buyers and young people in the primary production sectors																	
14-FOR-A05	Establish safer working conditions by improving safety on board																	

Of the six new actions relating to training, awareness-raising and the attractiveness of nautical professions, none are likely to have an impact on environmental issues.

WASTE

Action code	Action title	HB	MT	OM	PC	EC	RT	EUT	CONT	ENI	Int	HYD	De	BR	PAY	AIR	RIS	CO
D10-OE01-AN1	Prevent the discharge of waste upstream of sewerage and rainwater networks	P	P	P	P	P	P		P				P		P			
D10-OE01-AN2	Combat waste in sewerage and rainwater networks	P	P	P	P	P	P		P				P		P			P
D10-OE01-AN3	Identify priority landfills and waste accumulation areas and the different funding options to reduce them	P	P	P	P	P	P		P				P		P			P
D10-OE01-AN4	Raise awareness, inform and educate on ocean pollution caused by waste	P	P	P	P	P	P		P				P		P			
D10-OE01-AN5	Encourage the reduction, collection and reuse of waste from maritime activities and support activities towards sustainable equipment	P	P	P	P	P	P		P				P					P
D10-OE02-AN1	Improve waste management in ports, develop passive waste fishing and investigate methods of reusing plastics that have been left at sea	P	P	P	P	P	P		P				P					P
D10-OE02-AN2	Continue the deployment of European Clean Harbours Certification	P	P	P	P	P	P	P	P	P			P					

The 7 new environmental actions on waste lead to 66 exclusively positive impacts, spread over 12 issues. Four actions deal with the prevention of land-based waste, two actions deal with waste management in ports and maritime activities, and one action deals with raising awareness. The reduction of waste will indirectly have positive impacts on the marine ecosystem and on all biodiversity issues, and for certain actions also on the landscape, NIS and eutrophication issue.

PRESERVATION OF THE MARINE ENVIRONMENT AND THE LAND-SEA LINK

Action code	Action title	HB	MT	OM	PC	EC	RT	EUT	CONT	ENI	Int	HYD	De	BR	PAY	AIR	RIS	CO
15-AT-A01	Promote the implementation of the SDAGEs and SAGEs measures that aim to improve the quality of coastal waters	P	P	P	P	P	P	P	P	P		P	P					P
D01-HB-OE01-AN1	Formulate management recommendations for activities taking place on salt marshes by relying on a dedicated monitoring centre.	P		P	P	P	P				P				P		P	P
D01-HB-OE06-AN1	Strengthen the consideration of benthic habitats in offshore authorisations.	P									P	P			P		P	P
D01-MT-OE02-AN1	Reduce the impact of incidental catches of marine turtles by training deep-sea fishermen and maintaining an adequate network of care facilities		P															
D01-OM-OE03-AN1	Develop and implement appropriate management and protection tools for sea bird species of high concern in the marine sub-region	P		P	P	P	P		P		P		P		P			P
D01-OM-OE04-AN1	Monitor and control introduced and domesticated species on sea bird breeding sites.			P			P											
D01-OM-OE06-AN1	Strengthen the awareness of the sensitivity of species to disturbance in authorisations at sea and in local regulations	P	P	P	P	P	P				P			P	P			P
D01-PC-OE01-AN1	Clarify the regulations relating to elasmobranch capture and, on this basis, identify the actions to be implemented at national and local level.				P	P	P											P
D01-PC-OE02-AN01	Develop and implement a multi-species national action plan (NAP) for elasmobranchs				P	P	P											P
D01-PC-OE03-AN01	Develop and implement a national diadromous fish migratory plan for optimised management of migratory fish throughout the land-sea continuum	P			P	P	P				P	P						
D01-PC-OE03-AN2	Avoid or reduce the risks of damage to the population dynamics of diadromous species linked to catches in sectors where diadromous fish are of concern, in addition to existing management plans (subject to DPMA).				P	P	P					P						P
D01-PC-OE05-AN01	Strengthen the protection of Important Functional Fishing Areas (ZFIH), in particular by setting up pilot Fishing Conservation Areas (FCZ) on each coastline	P			P	P	P	P	P		P							P
D02-AN1	Improve the management of non-indigenous marine species	P			P	P	P			P					P			P
D06-OE01-AN2	Support the regulatory, technical and financial structuring of compensation actions at sea.	P	P	P	P	P	P				P						P	P
D07-OE03-AN1	Promote land-sea connectivity in estuaries and lagoons in addition to what is being done on ecological continuity under the SDAGE and PLAGEPOMI, by intervening on obstacles impacting currentology and sedimentology.	P		P	P	P	P				P	P			P		P	P
D07-OE04-AN1	Define the methods for better consideration of the needs of freshwater inputs to marine environments in regulations	P		P	P	P	P					P			P			P
D08-OE03-AN1	Make it compulsory to digitally report chemical discharges from chemical tankers at sea								P									P
D11-OE01-AN1	Collect and disseminate data on impulsive noise from industrial operations		P	P	P	P	P							P				P
AT-01	Develop the network of strong protection zones and strengthen their control	P	P	P	P	P	P				P	P			P			
AT-02	Develop the network of marine educational areas (subject to validation by COPI LAME)	P	P	P	P	P	P	P	P	P	P	P	P	P	P			
AT-04	Improve the monitoring framework of the marine environment	P	P	P	P	P	P	P	P	P	P	P	P	P				
AT-06	Submit and implement a Life project "Mobile marine species"		P	P	P													

The above are actions that could not be linked to a single activity or theme. They potentially result in 159 positive impacts on environmental issues.

Some of these protection actions target specific biodiversity issues:

- 2 actions on benthic habitats: In addition to the positive impact on benthic habitats, the protection of habitats or the reduction of pressures on the environment will have positive impacts on 10 other environmental issues.
- One action on marine mammals, by improving professional fishing practices;
- Three actions on sea birds, and in particular on breeding sites, species of high concern on the maritime coastline, and the limitation of disturbances in the context of projects subject to authorisation. The protection of bird habitats on the one hand and the reduction of pressures on the other will have a positive impact on 11 other environmental issues, in addition to the sea bird issue.
- Five actions on fish and cephalopods, dealing either with the protection of certain specific issues: important functional fishing areas: D01-PC-OE05-AN1, migratory fish: D01-PC-OE03-AN1, elasmobranchs: D01-PC-OE02-AN1, or the reduction of fishing pressure (D01-PC-OE01-AN2, D01-PC-OE01-AN1, D01-PC-OE03-AN2). Therefore, in addition to the fish and cephalopods issue, these actions should have a positive impact on 8 other issues.

A new action focuses on non-indigenous species. It leads to 7 impacts, exclusively positive, spread over 7 issues. The action will lead to an improvement in knowledge on this issue, a reduction in the risk of introducing NIS and therefore a reduction in the risk of erosion of biodiversity (the entire food web likely to be affected) and the risk of degradation of benthic habitats.

Three new actions specifically address land-sea links (15-AT-01, D07-OE03-AN1 and D07-OE04-AN1): they generate 30 impacts spread over 14 issues.

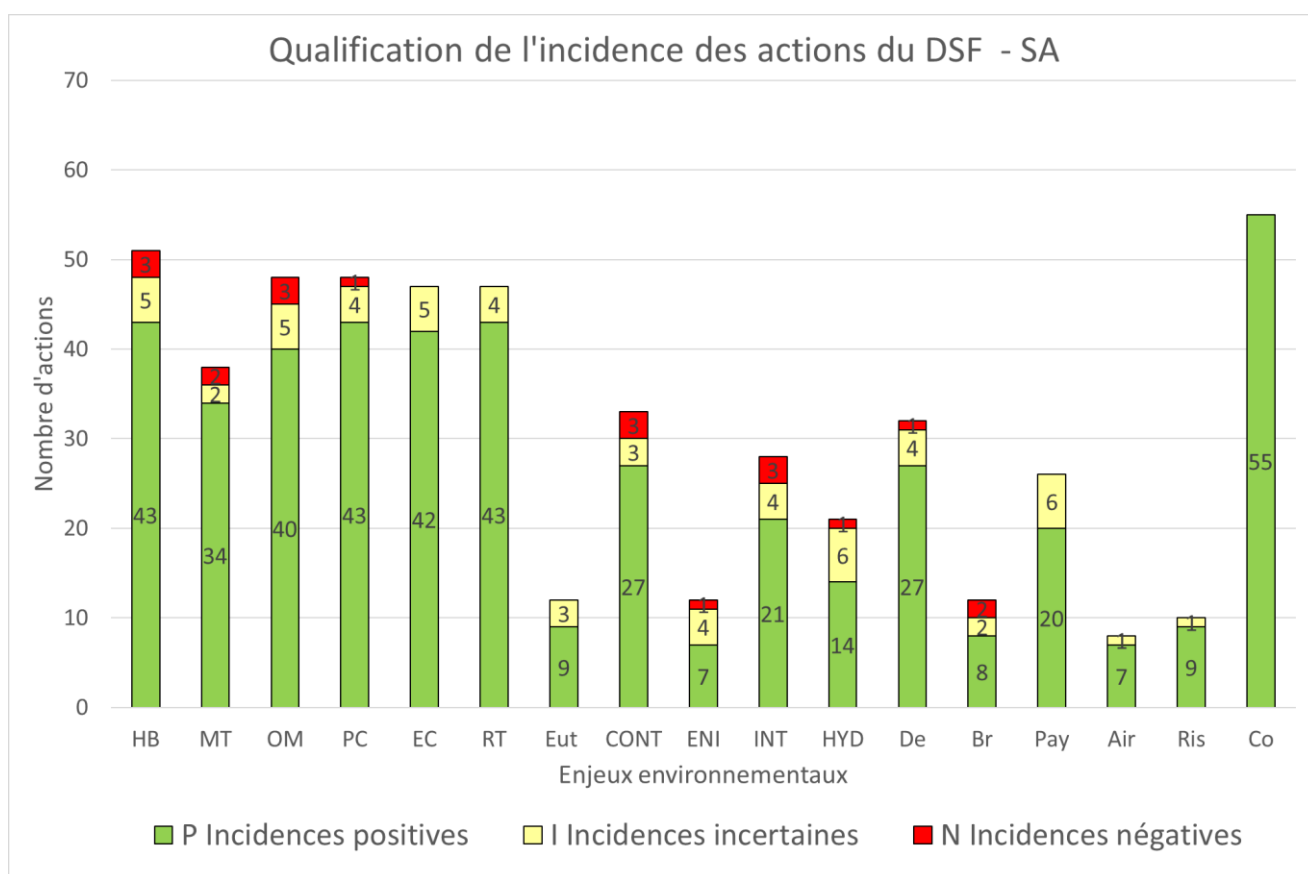
One action specifically addresses underwater noise (D11-OE01-AN1). It consists of collecting data on impulsive noise emissions. These data should make it possible to assess the areas and periods of emissions potentially impacting on marine fauna. Their acquisition is therefore an essential prerequisite for taking reduction measures on the various marine species (MM, turtles, fish, crustaceans and the entire food web, including diving sea birds). The impacts are positive and relate to 7 issues.

Six actions are cross-cutting: these are protection actions, not targeted or localised at this stage (AT-01 and AT-02), management actions (AT-06), reinforcement of controls at sea (AT-04) and support for compensatory measures at sea (D06-OE01-AN2).

CONCLUSION ON THE ACTION PLAN

The action plan includes 46 environmental actions and 43 socio-economic actions, which have varying degrees of positive, negative or uncertain impact, with a significantly higher proportion of positive impacts.

The following graph shows the impact of the actions on each issue.



In total, three socio-economic actions result in negative impacts, which are nevertheless linked to other socio-economic and environmental actions allowing a reduction of their potential effects.

Cumulatively, in view of the number of actions having an impact on the knowledge issue, the action plan will bring a definite improvement in the understanding of the impacts of socio-economic activities on the environment.

The issues related to habitats (HB) and species (MT, OM, PC, EC and RT) are well covered by the action plan and the impacts are also strongly positive. The issues related to the pressures: contaminants; seabed integrity, hydrographical conditions and waste and the societal issue of landscape are also well covered by the action plan.

Air quality and risk have almost exclusively positive impacts, however, few SBSD actions result in an impact on these issues compared to other issues. Similarly, few impacts are generated on the issues of eutrophication, NIS and noise, some of which are uncertain or negative.

No negative impacts are noted on the EC, RT and Landscape issues, but uncertain impacts remain.

A detailed description of these cumulative impacts is provided in Chapter 5.2.3, issue by issue.

5.2.2. Impact characteristics

The impact analysis was continued by characterising them according to three criteria:

- Their level of uncertainty. The question to be answered is "Are the expected effects of the action certain, following its implementation? ". The level of uncertainty of the impacts is then low (the effects of the action are certain, following its implementation) or high (the effects of the action are uncertain, following its implementation) or high¹² (the effects of the action are uncertain, following its implementation).
- The time frame in which they occur. The question is: "What is the time frame for impacts to occur? ". Impacts occur in the short term (effects of the action occur before the end of the current 2026 programming period) or in the medium-long term (effects of the action occur beyond this programming period or after several programming periods).
- Their longevity. The question is: "Are the effects of the action reversible?". Impacts are reversible (the effects of the action fade over time or can be reversed) or irreversible (the effects of the action are permanent over time). This parameter may also not apply to the impact.

From this analysis of impact characterisation, the following lessons can be drawn

- Almost half of the positive impacts (46%) have a high level of uncertainty, which may be an area to try and improve. This includes issues related to benthic habitats and species (marine mammals and sea birds, fish, commercial species and food webs), certain pressures (waste) or societal dimensions (landscape).
- Half of the positive impacts will occur after the expiry of the action plan (52%), which may be another important point to try to improve. This includes issues related to fish, commercial species, food webs, contaminants, hydrographical conditions, waste and the societal dimensions of air quality and landscape. However, once implemented, these actions will be beneficial to these issues.
- Less than a third of the positive impacts are reversible, which is a strength for positive impacts, as 73% prove to be sustainable over time. Negative impacts, which are far fewer,

¹² In particular, a high level of uncertainty will be associated with impacts related to actions whose implementation requires referral to supranational bodies. Because of this uncertainty, the objectives associated with these actions are subject to exceptions or exemptions.

are almost 64% reversible, which is also a positive point of the action plan.

- Note that the impacts on knowledge have the most favourable characteristics: 80% low uncertainty and 90% irreversibility and 75% short-term. Moreover, there are many of them and there are no uncertain or negative impacts on this issue.

More detailed information on this characterisation is included in the following analysis (5.2.3.), as it details the results for each of the 17 issues

5.2.3. Cumulative impacts of the entire action plan

5.2.3.1. BENTHIC HABITATS

The SBSB action plan is likely to generate 51 impacts on benthic habitats, the vast majority being positive (43/51 or 84%). For the remaining impacts, 5 actions are identified as having uncertain impacts and 3 actions as having negative impacts on benthic habitats. In short, 57% of the plan's actions will potentially have impacts on this issue. In terms of positive impacts, the majority of impacts relate to:

- sub-actions to improve knowledge (31%) and concrete actions (23%)
- and raising awareness (18%) aimed at changing practices in activities, accompanied by adaptation of regulations (17%) and planning (11%).

These positive impacts are more strongly direct (76%) than indirect and mainly of a permanent nature. However, half of the positive impacts are expected to occur in the medium to long term, and the effects of half of these actions are highly uncertain.

As for the negative impacts, although fewer in number (3), they nevertheless have rather unfavourable characteristics: the effects are fairly irreversible and short-term. However, there is a high degree of uncertainty about their occurrence. The three negative impacts stem from actions relating to the development of MRE and aquaculture. The negative impacts are therefore concentrated in certain identified areas where special attention will be required. This is the purpose of some of the socio-economic and environmental actions of the SBSB, which provide a form of link with these actions and help to understand these potential impacts (see chapter 6).

5 uncertain impacts may act on benthic habitats, mainly related to the effects of the development of the DOGGM, to a possible reduction in pressures linked to the development of more environmentally friendly activities (fishing), to possible developments linked to risk management and to a possible increase in tourist numbers and transport. Monitoring the progression of these activities will be essential to ensure the preservation of benthic habitats.

In view of the level of concern assessed in part 4 (high GES deviation for most zones, unknown for others), the high proportion of SBSB actions leading to a

the impact on this issue seems necessary. The impacts of these very positive trend actions have the potential to move some vocation zones closer to GES. Actions potentially leading to negative impacts are the result of targeted development actions in certain zones. These projects will be subject to environmental assessment. The input of the SBSB should enable the investigating authorities to have the tools and knowledge necessary to ensure the examination of projects, on the one hand, and the project owners to have support in integrating environmental issues into defining projects on the other hand. Despite this, it is not however possible to comment on a return to GES due to both the uncertainty of the impact of certain actions at this stage and the difficulty of measuring the achievement of good status at the coastline and its vocation zones (the reliability of the GES deviation attributed to the HB issue is estimated to be low).

5.2.3.2. MAMMALS AND TURTLES

The SBSB action plan is likely to generate 38 impacts for marine mammals and turtles, the vast majority being positive (34/38 or 89%). For the remaining impacts, 2 actions are identified as having uncertain impacts and 2 actions as having negative impacts. In short, 41% of the plan's actions will potentially have impacts on this issue.

These impacts are more strongly direct (72%) than indirect. The actions and sub-actions generating impacts on mammals and turtles have a relatively balanced profile between knowledge actions (24%), concrete actions (24%) and awareness/communication/training (22%). The regulatory sub-actions (17%) are also notable for this issue, although fewer in number than the other three categories. Most of the positive impacts are permanent. Half of the effects will occur in the short term and with certainty.

As regards negative impacts, these arise from actions relating to the development of MREs. Although fewer in number (2), they nevertheless have rather unfavourable characteristics: short-term and irreversible.

The uncertain actions (2) relate to a possible reduction in pressure linked to the development of more environmentally friendly activities (fishing) and a possible increase in maritime traffic increasing the risks of collision.

These negative and uncertain impacts uncover a form of synergy with other socio-economic and environmental actions, enabling a reduction in the risk of such impacts.

The positive impacts relate in particular to the improvement of practices linked to transport and professional fishing activities, which are two actions identified as the most contributory to pressures on mammals and turtles. Finally, it should be noted that an action linked to the improvement of knowledge on noise will enable better awareness of this effect in future applications for authorisation.

With regard to the level of concern assessed in part 4, all of these impacts may potentially enable the vocation zones to move closer to GES, as the SBSB sets out actions aimed at limiting incidental catches of small cetaceans (harbour porpoise and common dolphin), for which it has been noted that the rates exceed the threshold values for good environmental status (annex 2 of part 1 of the SBSB); however, it is still difficult to comment

on a return to good status, particularly in offshore areas that are frequented by species that could not be assessed for their environmental status (baleen whales and deep diving toothed whales). The knowledge efforts made by the SBSB are therefore essential in order to improve the consideration given to marine mammals in various anthropogenic activities.

5.2.3.3. SEA BIRDS

The SBSB action plan is likely to generate 49 impacts for sea birds, the vast majority being positive (41/49 or 84%). For the remaining impacts, 5 actions are identified as having uncertain impacts and 3 actions as having negative impacts. In short, 53% of the plan's actions will potentially have impacts on this issue.

With regard to positive impacts, these are mostly direct (84%) rather than indirect. One third of the actions generating impacts on sea birds are knowledge-related sub-actions (33%), 25% are concrete actions, 17% are awareness-raising actions and 15% are regulatory actions. While the majority of effects are characterised as permanent, a small proportion of impacts will however occur in the long term and with a high degree of uncertainty as to their occurrence.

These positive impacts relate to the improvement of knowledge for better awareness of this issue (particularly in the context of MRE projects and other projects subject to authorisation), the reduction of pressures linked to certain activities (fishing, agriculture, activities subject to authorisation, leisure activities) and the targeted protection of certain issues (species of high concern, breeding sites, mediolittoral habitats and functional habitats for sea birds and migratory birds), and the reduction of pollution and waste.

As for the negative impacts (3), they will mainly occur in the short term and on a permanent basis. However, most of them are judged with a high degree of uncertainty. The three potentially negative impacts stem from actions relating to MREs and, to a lesser extent, aquaculture, leading in particular to a loss of feeding areas or a risk of destruction of individuals. These impacts are targeted at the areas where these activities are developed. The SBSB's action aims to provide investigating authorities with the tools and knowledge they need to examine projects, and to provide project owners with support in fully integrating environmental issues into defining projects, which will be subject to environmental assessment. Therefore, these actions are linked to other SBSB actions to enable the integration of environmental issues (see chapter 6).

The uncertain actions (5) relate to a possible reduction in pressures linked to the development of more environmentally friendly activities (potential positive impact linked to the reduction of incidental catches when fishing), potential developments linked to risk management and onshore developments (loss of habitat, disturbance) and an increase in the number of tourists visiting the coastline (disturbance). Monitoring the progression of these activities will therefore be essential to avoid impacts on sea birds. These uncertain impacts can also be linked to other actions that help consider environmental issues (e.g. promoting better prior knowledge of the impacts of operations to reduce

the vulnerability of coastal territories, restoring mediolittoral habitats), to the sustainable development of activities (e.g. promoting sustainable tourism).

Therefore, many actions have a positive impact on this issue, and aim to improve both the practice of activities defined as contributory to the pressures generated on this issue (fishing, MRE, recreational sailing and water sports, artificialization), and also the management and protection of sensitive species and habitats. In view of the level of concern assessed in part 4 (low deviation from good status), all of these impacts can potentially allow some vocation zones to move closer to GES or at least to maintain the current status. However, the development of pressure-generating activities, particularly in zones 1 (MRE project) and 4, will require particular vigilance with regard to this issue. Finally, it was noted in part 4 that there are still significant knowledge gaps on the distribution, abundance and demography of sea birds to allow a fair assessment of the good status deviation on this issue. The action plan should lead to a distinct improvement in knowledge on this issue.

5.2.3.4. FISH AND CEPHALOPODS

The SBSB action plan is likely to generate 48 impacts for fish and cephalopods, the vast majority being positive (43/48 or 90%). The remaining impacts are uncertain (4) and negative (1). In short, 53% of the plan's actions will potentially have impacts on this issue.

The majority of these positive impacts are direct (73%) rather than indirect. Nearly a third of the actions generating impacts on fish and cephalopods are knowledge sub-actions (29%), followed by 23% concrete actions, 17% awareness-raising/communication/training actions and 17% regulatory actions. These positive impacts are permanent. But the effects are mostly long term and with a high degree of uncertainty.

The positive impacts are linked to actions to improve knowledge of the impacts of certain activities leading to a reduction in pressure on this issue (fishing, aquaculture), to the protection of certain specific issues: important functional fishing areas, migratory fish, elasmobranchs, and to awareness-raising actions (recreational fishing).

The negative impact is uncertain, reversible and long-term. These are the effects that may be generated by the development of aquaculture activity (the potential development of which will be subject to environmental assessment). However, the impact is highly uncertain in the long term. The effects are also considered to be mainly reversible.

With regards the uncertain impacts, these arise from the development of MRE activities, the effects that the drafting of the DOGGM will generate, and the development of more environmentally friendly activities (fishing).

This impact profile therefore seems to be more likely to result in potential positive effects. The positive actions relate to professional and recreational fishing activities and artificialization, which are considered to be major contributors to pressure on the issue. And the negative impacts will be concentrated on certain identified areas (aquaculture, subject to

environmental assessment). In this sense, the action of the SBSB should make it possible to reduce the GES deviation on this issue. However, it is not possible to conclude that the GES will be achieved at plan level for at least two reasons: firstly, the issue is very far from achieving the GES across the whole coastline, and secondly, the majority of the positive impacts will occur in the long term. It should also be noted that the reliability of the deviation from good status is low because, for a large proportion of the species of concern selected for analysis at vocation zone level, the GES status is not known (see part 4).

5.2.3.5. COMMERCIAL SPECIES

The SBSB action plan is likely to generate 47 impacts for commercial species, the vast majority being positive (42/47 or 89%). The remaining impacts are uncertain (5 actions); no negative impacts are noted for this issue. In short, 51% of the plan's actions will potentially have impacts on this issue.

The positive impacts are more strongly direct (74%) than indirect. The actions generating impacts on commercial species are mainly related to knowledge sub-actions (nearly a third), then operational actions (22%), awareness-raising/communication/training actions (17%) and regulatory actions (17%). These positive impacts are permanent, and the effects are mostly certain. However, the time frame for occurrence is mostly medium to long term. The actions mentioned above, as positive for fish and cephalopod species, are potentially also positive for commercial species.

Uncertain impacts arise from the development of MRE activities, the effects that the development of the DOGGM will generate, the development of more environmentally friendly activities (fishing), and the development of aquaculture (uncertain impact on certain stocks). Monitoring of these activities will therefore be necessary to ensure that there is no impact.

This impact profile therefore seems to be more likely to result in potential positive effects, with positive effects aimed in particular at reducing the pressures linked to the activities identified as highly contributory (professional and recreational fishing). Overall, the action plan should bring this issue closer to good status, with no negative impacts noted. However, particular attention should be paid to zone 1, where the deviation from good status is noted as high (see part 4), and where some potentially impacting actions are noted (aggregate extraction activity). It should also be noted that the reliability of the deviation from good status is rated as low, so actions to improve knowledge are important for this issue.

5.2.3.7. FOOD WEBS

The SBSB action plan is likely to generate 47 impacts on food webs, the majority of which are positive (43/47). The remaining impacts are of an uncertain nature (4 actions). No negative impacts were noted. In short, 52% of the plan's actions will potentially have impacts on this issue.

The positive impacts are more strongly direct (75%) than indirect. The actions generating impacts on commercial species are mainly related to knowledge sub-actions (nearly a third), then operational actions (24%), then regulatory actions (18%) and raising awareness /communication/training (16%). These positive impacts are mostly permanent. On the other hand, the time frame for occurrence is

mostly medium to long term, and half of the impacts have a high level of uncertainty.

As regards uncertain impacts, these arise from the development of MRE activities, the effects of the drafting of the DOGGM, and the development of more environmentally friendly activities (fishing). Monitoring of these activities will therefore be necessary to ensure that there is no impact.

This impact profile seems to be more likely to result in potential positive effects, but probably insufficient at plan level (the occurrence of these effects is assessed in the long term). It is not possible to comment on a return to the GES as it is not yet defined.

5.2.3.7. NON-INDIGENOUS SPECIES

The SBSB action plan is likely to generate 12 impacts on this pressure in the marine environment, which is a small proportion of the total impacts (13%) and therefore an issue that is not significantly affected by the SBSB. The majority of them are positive (7/12). However, a significant proportion (42%) of the impacts are uncertain (4/12) and negative (1/14).

The positive impacts are more strongly direct (78%) than indirect. The actions and sub-actions generating impacts on NIS have a typological profile with a dominance in raising awareness (30%), operational actions (25%) and planning (25%). Positive impacts have fairly favourable characteristics: dominant with low uncertainty and occurring in the short term. Only half have effects that are considered to be permanent. Some of these actions with positive impacts relate to activities considered to be highly contributory to potential NIS developments (aquaculture, ports) and one action specifically targets NIS management.

The negative impact comes from the expected development of aquaculture, which remains highly uncertain and long-term. The uncertain impacts are related to the development of MRE and the possible development of maritime traffic. However, there are potentially favourable synergies between these impacts and other actions (socio-economic and environmental) of the SBSB that could lead to an avoidance or reduction of this pressure.

This impact profile therefore seems to be more likely to result in potentially positive but low intensity effects on this issue over the duration of the plan. In view of the level of concern assessed in part 4, this low intensity of actions may be potentially insufficient in coastal vocation zones where the presence of activities (ports, aquaculture, shipping) is important (zones 1, 3 and 4). It is not possible to comment on a return to the GES as it is not yet defined.

5.2.3.8. EUTROPHICATION

The SBSB action plan is likely to generate 12 impacts on this pressure in the marine environment, which is a small proportion of the total impacts (13%) and therefore an issue that is not significantly affected by the SBSB. The majority of them are positive (9/12 or 75%). The remaining impacts are uncertain (3/12).

The positive impacts are more strongly direct (82%) than indirect. The actions and sub-actions generating the impacts on eutrophication have a typological profile with a majority of concrete actions (33%), planning actions (24%), followed by knowledge improvement actions (19%) and awareness raising-communication-training actions (19%), followed by operational, knowledge improvement and planning actions. The positive impacts have mixed features: half have low uncertainty and a short time frame. On the other hand, they are more permanent in nature.

Uncertain impacts arise from the potential effects of the DOGGM, aquaculture and effects related to the development of land-based activities. These activities will therefore be monitored to avoid impacts.

This impact profile seems to be more likely to result in potential positive effects to move towards good status, especially as the level of concern assigned to the vocation zones is low for all zones. However, it is not possible to comment on a return to the GES as this is not yet defined. It should be noted that an important part of eutrophication comes from waterways. Complementarity with the actions adapted by the SDAGE is therefore essential to improve the status of this issue. The linking and respect for reciprocal compatibility between the Adour Garonne SDAGE and the SBSA SA is in fact ensured by provision B36 of the SDAGE AG and the codified transversal governance action 15-AT-A01 of the SBSA SA (see chapter 3.4.1).

5.2.3.9. SEABED INTEGRITY

The SBSA action plan is likely to generate 28 impacts on this pressure in the marine environment. The majority of them are positive (21/28 or 75%). As for the other impacts, there are 4 uncertain impacts and 3 negative impacts. In short, 30% of the plan's actions will potentially have impacts on this issue.

The positive impacts are more strongly direct (68%) than indirect. The actions and sub-actions generating impacts on the integrity of the seabed have a typological profile with a dominance of knowledge actions (40%), followed by operational actions (23%) and awareness raising-communication-training (19%). The positive impacts have fairly favourable features: a majority with low uncertainty and largely permanent. The time frame for occurrence is however mixed (half short term, half long term). The positive impacts concern activities defined as contributory to the pressures generated on this issue (fishing, anchoring, extraction of materials and maritime public works, aquaculture). These expand on actions to protect certain benthic habitats of concern, as well as an action relating to the objective of "zero net artificialization".

The negative impacts (3) arise from actions relating to the development of MREs and aquaculture. Half of them will occur in the short term, and most of them will be irreversible. However, the level of uncertainty about their occurrence remains high. The negative impacts are therefore concentrated on the areas identified for the development of these activities, which will be subject to environmental assessment.

The uncertain actions (4) relate to a possible reduction in pressures linked to the development of more environmentally friendly activities (fishing), to the effects generated

by the development of the DOGGM and risk management development solutions, as well as possible port developments.

This impact profile seems to be more likely to result in potential positive effects. The uncertain and negative impacts are in fact a form of synergy with other actions to take this issue into account. Therefore, all of these impacts can potentially bring some vocation zones closer to the GES. However, the level of concern in zones 1, 3 and 4 is high and some activities which lead to negative effects on the integrity of the seabed are planned in these zones. In any case, it is not possible to comment on a return to the GES as this is not yet defined.

5.2.3.10. CHANGES IN HYDROGRAPHICAL CONDITIONS

The SBSDB action plan is likely to generate 21 impacts on this pressure in the marine environment. The majority of them are positive (14/21). The remaining impacts are uncertain (6) and negative (1). In short, 23% of the plan's actions will potentially have impacts on this issue.

The positive impacts concern a reduction in pressure due to aquaculture activity and several environmental actions to protect the environments: e.g. actions targeting the restoration of mediolittoral habitats, the objective of "zero net artificialization", promoting land-sea connectivity etc.. The positive impacts are more strongly direct (13) than indirect. The actions and sub-actions generating impacts on hydrographical conditions have a typological profile with a dominance of knowledge actions (33%), and operational actions (31%). Awareness-raising actions (13%) are also well represented. The positive impacts are mostly permanent and with a low level of uncertainty. The time frame for occurrence is however mixed (half short term, half long term).

The negative impact comes from the potential development of aquaculture activity. However, its level of uncertainty is high, its potential impact is localised to areas of activity development, the timeframe is rather long term, and it is considered reversible. Moreover, the SBSDB's action aims to integrate this potential development into a planning process that takes into account environmental issues and other activities which are present.

Other SBSDB actions are linked to this action and should provide the necessary knowledge tools to enable the examination of authorisation requests taking into account the issues of the coastline. The monitoring of the implementation of these activities will be able to characterise these impacts in more detail.

The uncertain impacts (6) stem from the planned development of MRE, possible developments related to risk management, effects generated by the development of the DOGGM, potential port developments and possible positive effects with more environmentally friendly fishing. These impacts are linked to other actions with positive impacts to ensure that the issues are taken into account.

The level of concern is estimated to be high in all coastal areas (see part 4). This impact profile will lead to positive effects on this issue, the negative impacts being generally weak and offset by positive actions located on the coastal sectors

of the coastline. However, it is not possible to comment on a return to the GES as this is not yet defined.

5.2.3.11. CHEMICAL AND BIOLOGICAL CONTAMINATION

The SBSDB action plan is likely to generate 33 impacts on this pressure in the marine environment. The majority of them are positive (27/33 or 81%). The remaining impacts are uncertain (3) and negative (3). In short, 36% of the plan's actions will potentially have impacts on this issue.

The positive impacts come from actions related to activities that are considered to be strong contributors to potential contaminant developments (ports and transport, aquaculture, waste). They are mostly direct (68%) rather than indirect. The actions and sub-actions generating impacts on contaminants have a typological profile with a majority of awareness-raising/communication/training actions (26%), followed by knowledge (23%) and operational actions (23%). Positive impacts have fairly favourable features: dominant with low uncertainty and permanent. However, the time frame of occurrence is mostly long term.

The negative impacts (3) come from actions relating to aquaculture and MRE development. Uncertain impacts (3) come from the effects generated by the development of the DOGGM and the possible increase in maritime transport, as well as possible positive effects with more environmentally friendly fishing. However, these impacts are linked to other actions (socio-economic and environmental) that can lead to the avoidance or reduction of these pressures (see part 6).

This impact profile seems to be more likely to result in potential positive effects, with a majority of positive impacts having favourable features, and negative impacts being generally offset by other actions in the action plan. While it is not possible to comment on a return to the GES as it is not yet defined, this issue should however progress positively at plan level.

5.2.3.12. WASTE

The SBSDB action plan is likely to generate 32 impacts on this pressure in the marine environment. The majority of them are positive (27/32). The remaining impacts are uncertain (4) and negative (1). In short, 35% of the plan's actions will potentially have impacts on this issue. The positive impacts come from a variety of activities that contribute to this pressure.

The positive impacts come from actions linked to a reduction of pressures related to land-based activities (sewage systems, landfills) and to sea-based activities (port activities, transport, aquaculture, fishing) as well as to awareness-raising actions affecting various audiences. These impacts are more strongly direct (68%) than indirect. The actions and sub-actions generating impacts on waste have a typological profile with a majority of concrete actions (27%), followed by knowledge (23%) and awareness actions (24%). The positive impacts have features with a majority of high uncertainty and a rather long-time frame. However, the impacts are considered to be mostly permanent.

Regarding the negative impact, it will potentially occur in the medium to long term, with a high level of uncertainty and the effects will be reversible. It comes from the planned development of aquaculture activity. The negative impacts are therefore concentrated in the areas identified for the development of this activity.

Uncertain impacts come from a potential increase in sailing, tourism and transport activity.

This impact profile will lead to positive effects on all vocation zones, but rather in the medium to long term. In view of the level of concern assessed in part 4 (high concern in zones 1, 3, 4), and the low intensity of negative impacts, it can be considered that the action plan will contribute to improving this situation. However, it is not possible to comment on a return to the GES as this is not yet defined. Complementarity with the actions adapted by the SDAGE is necessary to improve the status of this issue. The linking and respect for reciprocal compatibility between the Adour Garonne SDAGE and the SBSA SA is ensured by provision B36 of the SDAGE AG and the codified transversal governance action 15-AT-A01 of the SBSA SA (see chapter 3.4.1).

5.2.3.13. NOISE

The SBSA action plan is likely to generate 12 impacts on this pressure in the marine environment, a small proportion of the total impacts and therefore an issue that is not significantly affected by the SBSA. The majority of them are positive (8/13). The remaining impacts are uncertain (2) and negative (2). In short, 13% of the plan's actions will potentially have impacts on this issue.

The positive impacts are linked to control actions, better awareness of sensitive species in authorisations and recreational activities, improved knowledge of the sensitivity of species, and the noise emitted during work. They are more strongly direct (78%) than indirect. The actions and sub-actions generating noise impacts have a typological profile with a majority of knowledge (one third) and awareness actions (one third), followed by regulatory actions (17%). The positive impacts have fairly favourable features: dominant with low uncertainty, short-term occurrence and permanent.

The two negative impacts come from actions relating to MREs. They will potentially occur in the short term and their effects are considered irreversible. However, these negative impacts have potentially favourable synergies with other actions (socio-economic and environmental) of the SBSA that could lead to a reduction in pressures (improvement in knowledge of how noise generated by work affects species, strengthening the awareness of the sensitivity of species in authorisations)

Uncertain impacts arise from a potential increase in maritime traffic and the effects caused by the development of the DOGGM.

Therefore, this impact profile seems to be more likely to result in potential positive effects, with favourable features. The SBSA's action should significantly improve the state of knowledge on this issue and move towards better awareness of noise-sensitive species. It is not possible to comment on a return to the GES as it is not yet defined.

5.2.3.14. LANDSCAPES AND UNDERWATER LANDSCAPES

The SBSB action plan is likely to generate 26 impacts on this issue in the marine environment. The majority of them are positive (20/26). Other impacts are uncertain (6). No negative impacts were noted on the landscape. In short, 28% of the plan's actions will potentially have impacts on this issue.

The positive impacts come from actions related to the restoration of natural environments, the development of more sustainable tourism activities, waste reduction and the development of heritage sites. The positive impacts are more strongly direct (74%) than indirect. The actions and sub-actions generating impacts on the landscape have a typological profile with a majority of knowledge actions (42%), concrete actions (19%), then awareness-raising (15%) and regulatory actions (15%). The positive impacts have rather unfavourable features: a majority with high uncertainty and of a long-term nature. On the other hand, the majority of impacts are considered to be permanent.

The uncertain impacts come from potential developments related to the development of MRE, aquaculture and developments for sailing activities (anchoring) and tourism (coastal path). On the other hand, a certain number of SBSB actions are positively linked to these impacts, aiming at a respectful development of these activities, on the one hand, and protection and restoration of natural environments, on the other hand, which has a positive impact on the landscape aspects.

This impact profile therefore seems to be more likely to result in potential positive effects on this issue, but of low intensity. The level of concern established in part 4 shows a high level of concern in some areas (1 and 3), where activities with potentially negative impacts are planned. The effects will need to be examined in the environmental assessment of these projects. The SBSB's actions should enable appropriate support for the maximum awareness of environmental issues (particularly in relation to MREs and aquaculture).

5.2.3.15. AIR QUALITY

The SBSB action plan is likely to generate 8 impacts relating to this issue, which is a small proportion of the total impacts (9%) and therefore an issue not significantly affected by the SBSB. The majority of them are positive (7/8). No negative impacts are expected on this issue, but 1 impact is noted as uncertain.

The positive impacts come from the possible development of renewable marine energies, the development of an energy transition strategy in the transport and fishing port activities, and research actions in the development of alternative fuels. Just over half of the positive impacts are direct (58%). The actions and sub-actions generating noise impacts have a typological profile with a majority of knowledge (37%) and concrete (32%) and awareness-raising (16%) actions. Positive impacts have fairly favourable features: dominant with low uncertainty and permanent. But the time frame of occurrence is considered long-term for all impacts.

The uncertain impact is due to an action leading to a possible increase in maritime traffic.

This impact profile appears to lead to potential positive effects. In view of the high or intermediate level of concern assigned to this issue in part 4, an improvement can be expected, but probably in the long term in relation to the plan.

5.2.3.16. NATURAL AND HUMAN RISKS

The SBSDD action plan is likely to generate 10 impacts on this issue, which is a small proportion of the total impacts (11%) and therefore an issue that is not significantly affected by the SBSDD. The vast majority of impacts are positive (9/10). An uncertain impact was noted.

The positive impacts come from actions developing an integrated approach to coastal risks (strategic retreat, flexible methods), better "beforehand" knowledge of the impacts of operations to reduce the vulnerability of coastal areas, as well as operations to restore natural coastal environments. The impacts are more strongly direct (75) than indirect. The actions and sub-actions generating impacts on natural and human risks have a typological profile with a large majority of knowledge actions (52%), followed by operational actions (26%), and awareness-raising actions (16%). The impact characteristics are favourable, with a majority of low uncertainty, short term and permanent impacts.

The uncertain impact comes from an action to promote sustainable coastal tourism. This impact would therefore be positive, if the "risk" aspect is integrated into the planning considerations (erosion/submergence), which is not specified in the action.

The challenge is considered to be high in all coastal areas (see part 4). Although few impacts are noted for this issue, this impact profile will lead to effects combining improvement of beforehand knowledge, communication and concrete actions based on flexible vulnerability reduction methods.

5.2.3.17. KNOWLEDGE

The SBSDD action plan is likely to generate 55 impacts relating to this issue, representing a high proportion of total impacts (62%). They are all positive.

The positive impacts have very favourable features: a majority with low uncertainty, a majority with a short time frame of occurrence, and of a permanent nature.

This impact profile is therefore very positive. In view of the level of concern assessed in part 4, this high intensity of actions should significantly improve the knowledge status within the coastal vocation zones, partly in zones where the knowledge status seems to be weak (continental shelf and offshore areas).

5.2.3.18. CONCLUSION

The issues in the first group, referred to in the previous section as "issues related to the components of the marine environment", have a high number of impacts, the majority of which are positive, but with a significant proportion of medium to long-term occurrence and a high level of uncertainty. Although the strong dominance of positive impacts, as well as the localised nature of negative impacts (MRE implementation area, possible aquaculture development areas), make it possible to conclude that

the action plan has an overall positive impact on them, it is impossible to state the extent and therefore the ability of the action plan to restore good status. Moreover, these issues are not in the same situation with regard to the GES:

- two of them show a significant overall deviation from the GES, which seems difficult to bridge on the basis of this first action plan (benthic habitats, fish and cephalopods);

two issues in this first group (mammals and turtles and commercial species) show a deviation from the intermediate GES, which should therefore tend towards improvement at action plan level. However, the level of reliability in assessing these two groups remains low;

- the issue regarding sea birds is considerably more favourable, which the action plan should at least reinforce, even if the impact of the future wind farm on sea and migratory birds will call for the utmost vigilance;

- the GES is not defined for the food web issue and the deviation from it is not assessed, making it even more difficult to comment on the overall impact of the action plan on this issue.

On the issues in the second group, known as "issues related to pressures on the marine environment", the impact of the SBSB should be less significant than for those in the first group, given the smaller number of actions having an impact on these issues, even if this smaller number is partly offset by a higher proportion of short-term impacts. Furthermore, the overall impact of the action plan is likely to be more or less significant depending on the different issues making up this second group:

- rather modest for eutrophication, ENI and noise, which does not have the same consequences given the different status of these issues (see section 4). Eutrophication is indeed rather favourable on the coastline, in contrast to noise and ENI which are intermediate issues. So, while the a priori modest impact of the action plan seems to be somewhat problematic for eutrophication, it could be even more problematic in some vocation zones for noise pollution and ENI;

- more significant for contaminants, seabed integrity, hydrographical conditions and waste. The greater impact of this plan on these four issues is all the more relevant as they present fairly high levels of concern (except for the contaminants issue, which presents a lower GES deviation but for which half of the vocation zones could not be assessed). Nevertheless, it is all the more impossible to comment on a possible return to good status as this has not been defined for three of them (waste, hydrographical conditions and seabed integrity);

The issues in the third group "Other societal issues" will all be positively impacted by the action plan, as the plan has a very high proportion of positive impacts and no negative impact on them. However, the overall effect that can be expected from the action plan differs quite widely for each of these four so-called 'societal' issues:

- the action plan has a fair number of landscape impacts, the vast majority of which are positive. The overall effect will be all the greater if the actions with these impacts are targeted at the zones where the landscape issues are the strongest. In addition, attention should be paid to the uncertain impact of the creation of large-scale wind farms on the landscape;
- there are a lot fewer impacts on air quality, although almost all of them are positive. With regard to the fight against atmospheric pollution, it is not certain that the plan is equal to the challenges, which are quite high overall. With regard to the reduction of GHG emissions, it is difficult to comment with the absence of a diagnosis of the initial situation;
- there are also relatively few risk impacts, for a relatively high issue on a large part of the coastline;
- finally, the impacts on knowledge are numerous, all positive and mostly short-term. The plan should therefore significantly improve the level of knowledge about the coastline, which is highly relevant given the existing uncertainties.

5.2.4. Spatialised impacts at vocation zone level

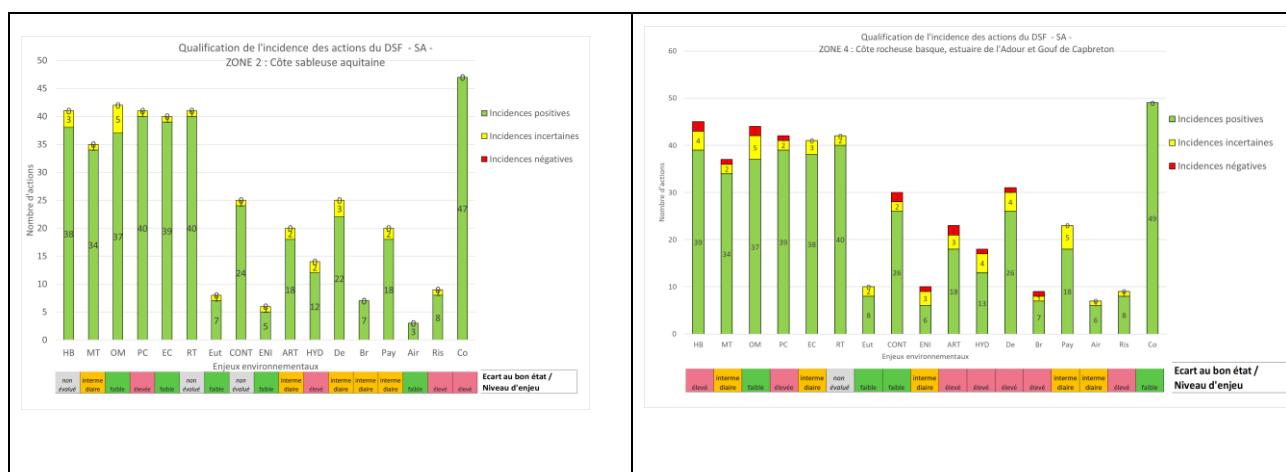
With regard to the vocation zones affected by the stated impacts, two profiles of vocation zones can be distinguished in the first place: the vocation zones that are located offshore and the vocation zones that are located on the coast. The offshore zones have, at first sight, a much lower coverage of issues than the coastal zones, as illustrated on the two following graphs (left: zone 1; right: zone 6).



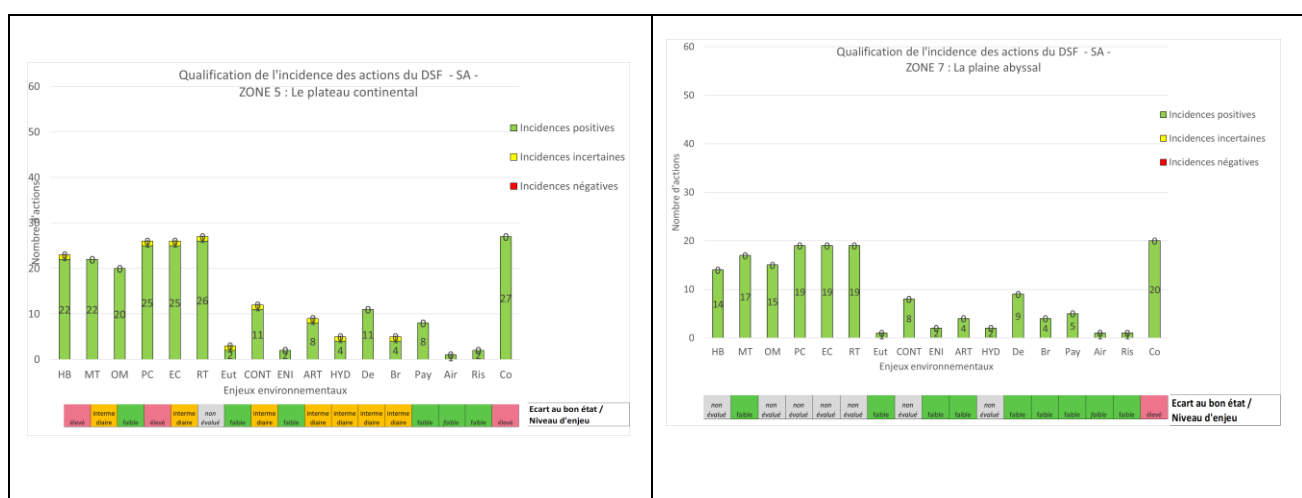
Furthermore, within the coastal vocation zones 1, 2, 3 and 4, a difference can be noted:

- zones 1 and 4 have almost the same profile.

— The profiles for zones 2 and 3 show significant similarities to zones 1 and 4 in the number of impacts, but with almost no negative effects. (See example zone 2 on the left and zone 4 on the right).



The offshore zones, 5, 6 and 7 have half as many impacts, and they are almost exclusively positive. These zones also have the lowest levels of concern in relation to the environmental descriptors. Particular attention should be paid to issues with a large GES deviation (e.g. HB and PC in zone 5). The graphs above illustrate the impacts on vocation zone 5 on the left and 7 on the right.



The SBSDD's action seems particularly relevant for habitats and species that often show a significant deviation from the GES in the majority of zones. The same applies to the pressures Contaminants, Seabed Integrity, Hydrological changes, Waste, and the societal issue of landscape, particularly in coastal areas.

The SBSDD's action also seems relevant for the Knowledge descriptor in view of the generally low level of reliability associated with the deviation from good status, or even the absence

of an assessment of the level of concern for certain descriptors, particularly in the offshore vocation zones.

The low number of impacts on NIS, Noise, Air Quality and Risk warrants attention in areas where the level of concern is high (coastal areas). However, the low number of impacts on Noise and Non-indigenous Species can be explained by the need to acquire knowledge on these issues.

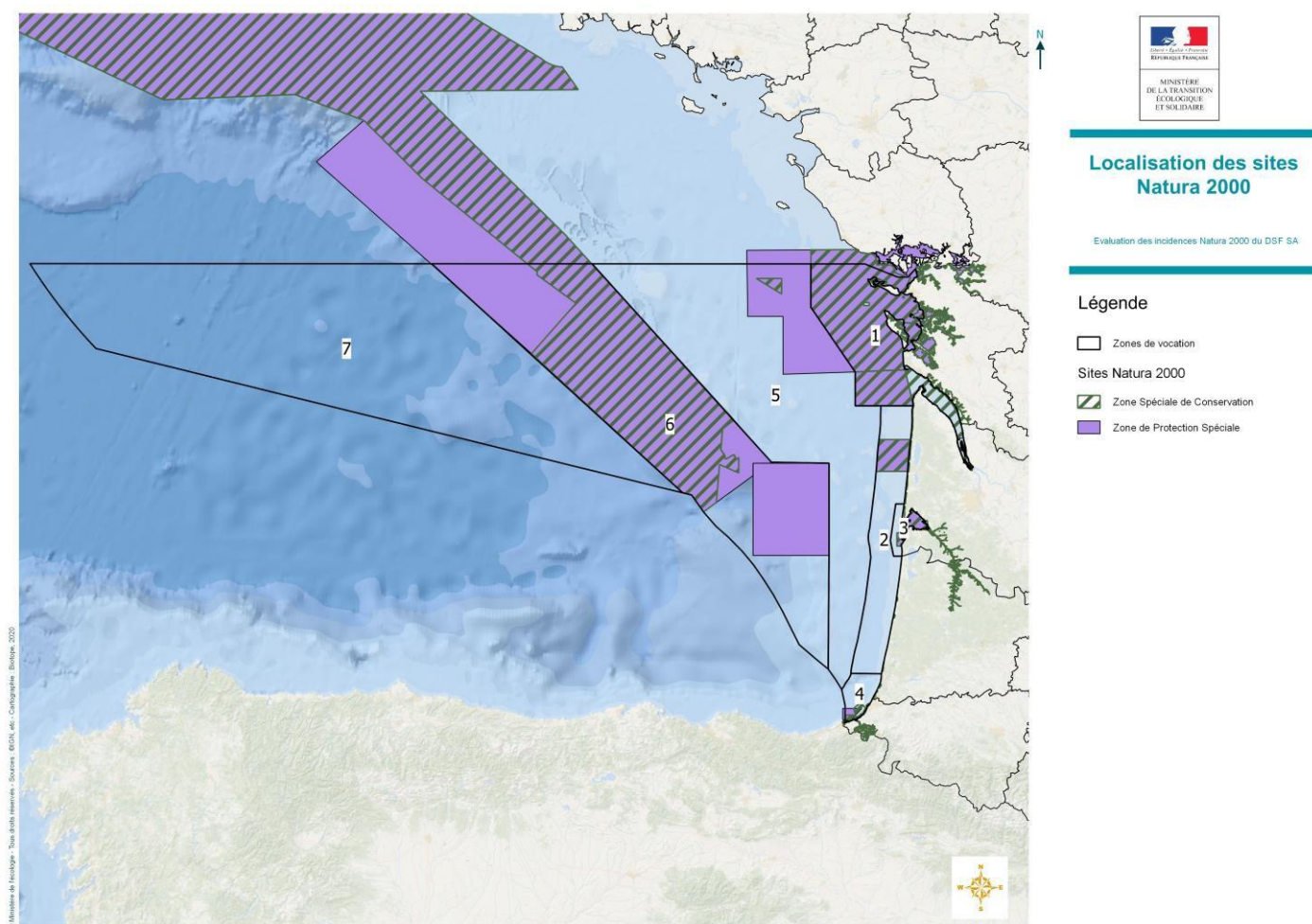
5.3. Impact analysis on Natura 200 areas¹³

5.3.1. Presentation of Natura 2000 sites

Location

Of the 7 zones marked out by the coastline's vocation map, 6 include areas classified as Natura 2000.

¹³ For more details on this analysis, please refer to (1) the table of the main issues in the Natura 2000 area for each coastline (annex in Excel format) and (2) the impact spatialisation sheets in the annex to this report.



Strong Protection Zones (SPZs) of the maritime coastline:

14 SPZs are located on the SA coastline. See list in annex 5.

❖ Birds of community interest for which Natura 2000 sites on the coastline were designated:

Of the bird species of community interest for which SA Strong Protection Zones were designated, only sea bird species are included in the impact assessment of the SBSF. They were divided into two groups:

- Pelagic sea bird species: Northern Fulmar, Great Shearwater, Balearic Shearwater, Northern Gannet, Razorbill, Atlantic Puffin, Great Skua, Common Murre, Storm petrel etc. These species spend most of their lives at sea: they only come ashore on the French coast to nest or during particular weather conditions at sea (gale force winds etc.). They feed at sea, immersing themselves at varying depths depending on the species.
- Coastal sea bird species: this group includes surface sea birds (arctic terns, marsh terns, gulls, etc.), shorebirds (Common Ringed Plover, Common Redshank, Black-tailed Godwit, etc.), waders (Spoonbills, etc.), sea ducks (Black Scoter, etc.) and other species of "coastal divers" (

Loons, European Shag etc.). These species feed either on the foreshore and in coastal wetlands (lagoons, coastal backwaters etc.) or on the surface of the sea.

The table in annex 5 lists the CI bird species and their conservation status on the sites, for which the coastline has a particular responsibility. The species presented are those whose numbers correspond to more than 10% of national numbers (source: CEREMA, 2014) ¹⁴

The South Atlantic coastline plays an important role in the wintering of pelagic and coastal sea birds. The main wintering sites on the coastline are the Arcachon bay (vocation zone 3), the Aiguillon bay, the Pointe d'Arçay and the Moëze nature reserve, the islands of Ré and Oléron (vocation zone1).

The concentration zones for sea birds are located in particular in the:

- vocation zones 1 and 5 (Plateau de Rochebonne and the Pertuis Charente): by associating the coastal parts of the mainland and the islands, with their coastal backwaters, foreshore zones, neritic zones, the Panache de la Gironde, which constitutes a major feeding, wintering, migration and breeding zone for sea birds (this area is particularly favourable to post-nuptial gatherings of sea and coastal birds, mainly of Nordic origin);
- vocation zone 4 (Biarritz Rocks: the Bouccalot and the Round Rock): The zone has rocky areas and cliffs used as nesting areas by sea birds; the site is of great importance in the life cycle of the storm petrel as it is its only nesting site in Aquitaine.
- The Arcachon bay (vocation zone 3) is a breeding, feeding and stopping area for sea birds of international importance. The lagoon is home to a large community of waterbirds of European origin (over 100,000 waterbirds) during the winter, including the sandwich tern. The Banc d'Arguin is classified as a sensitive area for the development and nesting of this species during the summer season, as well as for the Balearic Shearwater, a species classified by the IUCN as critically endangered.
- We should also note the tops of the Cap Ferret canyons and the Bay of Biscay slope (sector 6), important wintering areas for sea birds in relation to the wealth of food resources: Northern Fulmar, Northern Gannet, Great Skua, Black-legged Kittiwake, and Great Shearwater.

Special Conservation Zones (SCZs) of the maritime coastline

25 SCZs are located on the SA coastline. See list in annex 5.

¹⁴ Source: SEA of the Bay of Biscay PAMM - CEREMA 2014 - Pages 248-249 (except for offshore reefs as the areas concerned did not exist in 2014).

❖ The CI habitats for which the SCZs were designated:

The benthic habitats of community interest for which the coastline's special conservation zones were designated, and which were selected for the impact analysis, are the marine or wetland habitats located on the coastline. For the purpose of this analysis, they were divided into three groups:

— Marine benthic habitats located in the subtidal zone, whether sedimentary or rocky in nature: these are reef habitats (1170), sandbanks with little permanent marine water cover (1110), large inlets and shallow bays (1160). Of particular note are the eelgrass beds (zone 3), the maerl banks, the rocky areas and shallows of the Rochebonne plateau which allow the development of kelp (zone 5) and the underwater canyons of zones 4 and 6.

— Habitats located on the littoral fringe (intertidal zone, foreshore): this group includes areas exposed at low tide, sandy or muddy foreshore (1140), rocky cliffs (1170), intertidal or mediolittoral reefs (1170). While the dune system predominates on the coastline (zone 2), the south of the coastline is marked by the presence of coastal cliffs. Note the particular issue for the dwarf eelgrass beds (zones 1 and 3) and the honeycomb worm reefs (zones 1 and 3).

— Habitats located in transitional environments mixing fresh and salt water: these are lagoons (1150) and estuaries (1130). Zone 1 encompasses a particularly diverse set of estuarine environments (the Charente, Gironde, Le Lay, Sèvre Niortaise, Charente and Seudre rivers) including tidal mudflats, salt marshes and coastal rivers subject to tides and hygrophilous grasslands. Zone 3 is a vast semi-enclosed lagoon with a variable salinity and large areas of mudflats.

❖ The CI fauna species for which the SCZs were designated :

The species of community interest for which the coastline's special conservation zones were designated, and which were selected for the impact analysis, are marine species, grouped into two groups:

— Marine mammals: the harbour porpoise and the bottlenose dolphin are the species for which the Natura 2000 sites on the coastline were defined. These highly mobile species are likely to frequent all areas of the coastline. These species particularly visit coastal areas.

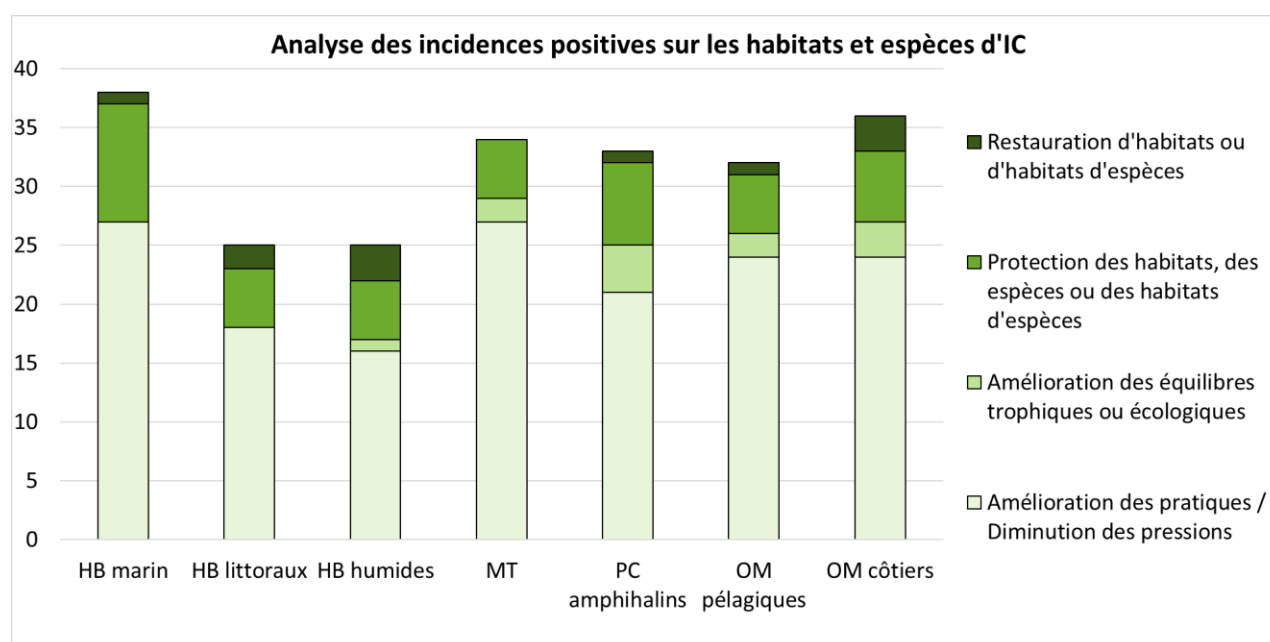
— Diadromous fish: Allis shad, Twait shad, Sea lamprey, River lamprey, Atlantic salmon, European sea sturgeon. The estuarine part of zone 1 is a major area for the entire diadromous parade (only nursery site for the European sea sturgeon); zone 2 also represents a frequentation and concentration area for the sturgeon in the south of the Gironde estuary. The diversity of habitats in the Arcachon bay (zone 3) also attracts diadromous fish (eels, river lamprey), as well as those in zone 4 (salmon, eels or shads): the Adour, Nivelle and Bidasoa rivers are therefore breeding and migration sites. Diadromous fish use the sea area of the Basque rocky coasts as a resting area and to wait for favourable hydrodynamical conditions for their transition from the sea to the river environment.

The table in annex 5 presents the list of CI habitats and fauna species and their conservation status on Natura 2000 sites, for which the coastline has a particular responsibility. These selected species are those whose numbers exceed 50% of the French total (source: CEREMA, 2014) ¹⁵

5.3.2. Potential impact analysis of the SBSB on the coastline's Natura 2000 sites

Type of Natura 2000 issues covered in the SBSB

The majority of the impacts of the SBSB actions are positive (54 actions result in positive impacts). The following graph shows the distribution of these impacts by CI issue groups.



As illustrated in the graph above, the positive impacts are aimed in particular at improving practices or reducing pressures and concern all issue groups. All socio-economic activities are involved in this objective of improving practices: professional and leisure fishing, electricity production, aquaculture, tourism, sailing and water sports, port activities and transport, and sediment extraction. These activities are likely to be located within the Natura 2000 sites of the coastline; the SBSB's actions should therefore enable better awareness of CI issues, particularly by limiting the degradation of marine, coastal or wetland benthic habitats, reducing pollution and waste, reducing incidental catches of marine mammals or sea birds,

¹⁵ Source: SEA of the Bay of Biscay PAMM - CEREMA 2014 - Pages 248-249 (except for offshore reefs as the areas concerned did not exist in 2014).

limiting the risks of collisions and disturbances to marine megafauna during work at sea or generated by the various activities.

In addition, several SBSO actions are aimed more specifically at environmental protection or restoration, some of which specifically target CI habitats or species. These actions are listed below:

Issue group	Specific actions aimed at preserving CI issues
Marine habitats (marine HB)	Contribute to strengthening the awareness of the sensitivity of deep-sea habitats in the Atlantic at community level (D01-HB- OE10-AN2)
Foreshore habitats (coastal HB)	Identify, maintain and restore mediolittoral and functional sea bird habitats that are degraded and/or exposed to coastal habitat compression. (D01-OM-OE05-AN1)
Habitats in transition zones (wet HB)	Promote land-sea connectivity in estuaries and lagoons in addition to what is being done on ecological continuity under the SDAGE and PLAGEPOMI, by intervening on obstacles impacting currentology and sedimentology. (D07- OE03-AN1),
Diadromous fish (diadromous PC)	<p>Develop and implement a national diadromous fish migratory plan for optimised management of migratory fish throughout the land-sea continuum (D01-PC-OE03-AN1)</p> <p>Promote land-sea connectivity in estuaries and lagoons in addition to what is being done on ecological continuity under the SDAGE and PLAGEPOMI, by intervening on obstacles impacting currentology and sedimentology (D07-OE03- AN1)</p> <p>Identify and reduce the risk of incidental catches for each species of community interest (D01-OM-OE01-AN1)</p>
Sea birds (marine OM)	<p>Develop and implement appropriate management and protection tools for seabird species of high concern in the marine sub-region (D01-OM-OE03-AN1)</p> <p>Monitor and control introduced and domesticated species on sea bird breeding sites (D01-OM-OE04-AN1)</p> <p>Submit and implement a Life "Mobile Marine Species" project (AT-06)</p> <p>Identify and reduce the risk of incidental catches for each species of community interest (D01-OM-OE01-AN1)</p>

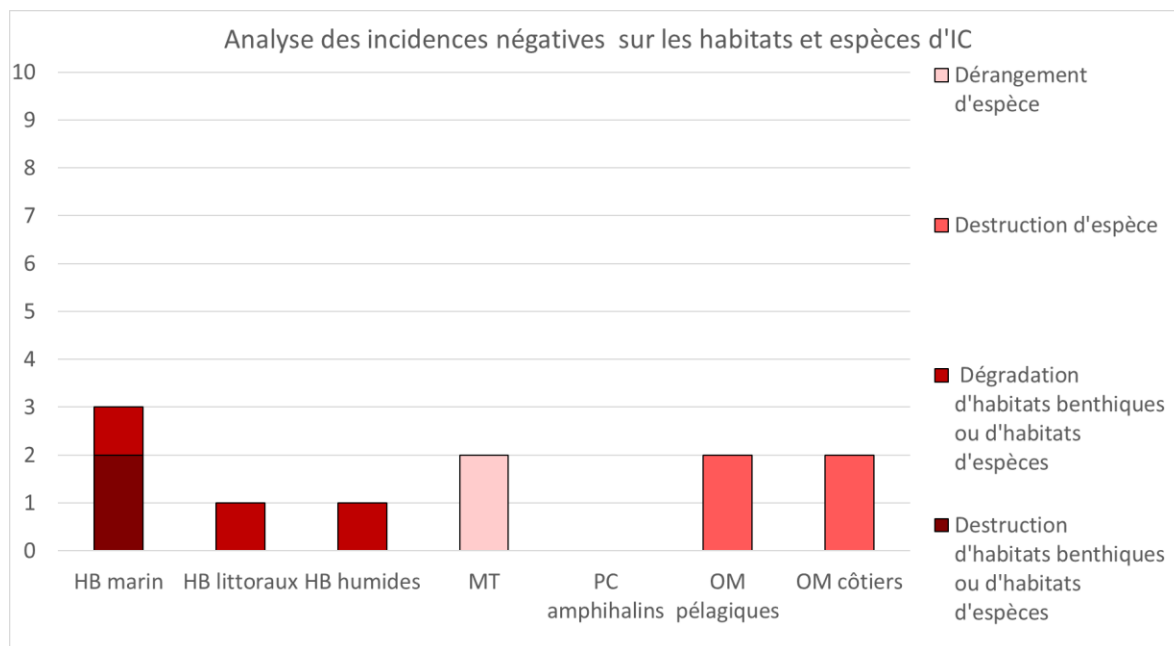
Issue group	Specific actions aimed at preserving CI issues
Coastal birds (coastal OM)	<p>Identify, maintain and restore mediolittoral and functional sea bird habitats that are degraded and/or exposed to coastal habitat compression. (D01-OM-OE05-AN1)</p> <p>Monitor and control introduced and domesticated species on sea bird breeding sites (D01-OM-OE04-AN1)</p> <p>Submit and implement a Life "Mobile Marine Species" project (AT-06)</p> <p>Identify and reduce the risk of incidental catches for each species of community interest (D01-OM-OE01-AN1)</p>
Cetaceans	Submit and implement a Life "Mobile Marine Species" project (AT-06)

Finally, in addition to these protective or restorative actions, there are several cross-cutting actions, not localised at this stage and not targeted at a specific issue, which should lead to better preservation of CI habitats and species:

- Develop the network of strong protection zones and strengthen their control (AT-01),
- Develop the network of marine educational areas (AT-02),
- Strengthen awareness of the sensitivity of species to disturbance in offshore permits and local regulations (D01-OM-OE06-AN1),
- Develop a strategic vision on artificialization of the coastline with the aim of moving towards "zero net artificialization" (D06-OE01-AN1)
- Support the regulatory, technical and financial structuring of compensation actions at sea (D06-OE01-AN2).

Negative impacts on CI habitats and species

3 actions in the SBSB are likely to have negative impacts on CI habitats and species. The impacts especially focus on the destruction or degradation of benthic habitats or species habitats, as illustrated in the following graph:



These impacts are generated by:

1 / Two actions related to the planning of socio-economic activities:

- **planning of aquaculture zones (02-AQUA-A01):** The Natura 2000 sites in zones 1, 3 and 4 are particularly affected.
- **The launch of the future call for tenders for the offshore wind project off the coast of Oléron (05-EMR-A01):** The Natura 2000 sites in zone 1 are particularly affected by the risk of impacts on birds (loss of hunting habitats, risk of collision during migration), on marine habitats, and on cetaceans (disturbance during the construction phase of projects).

The nature of the impacts generated by these two actions depends on the design and implementation methods of future MRE and aquaculture projects. The SBSB action plan foresees several actions enabling the reduction of these impacts related to the possible development of these projects. The SBSB leads to beforehand thinking and planning of zones conducive to environmental targets being achieved; the effect is therefore positive, compared to a scenario without the SBSB, particularly through the following actions:

- Improving knowledge of the impacts of these activities (03-AQU-A01, sub-action 2 of D01-OM-OE02-AN1);

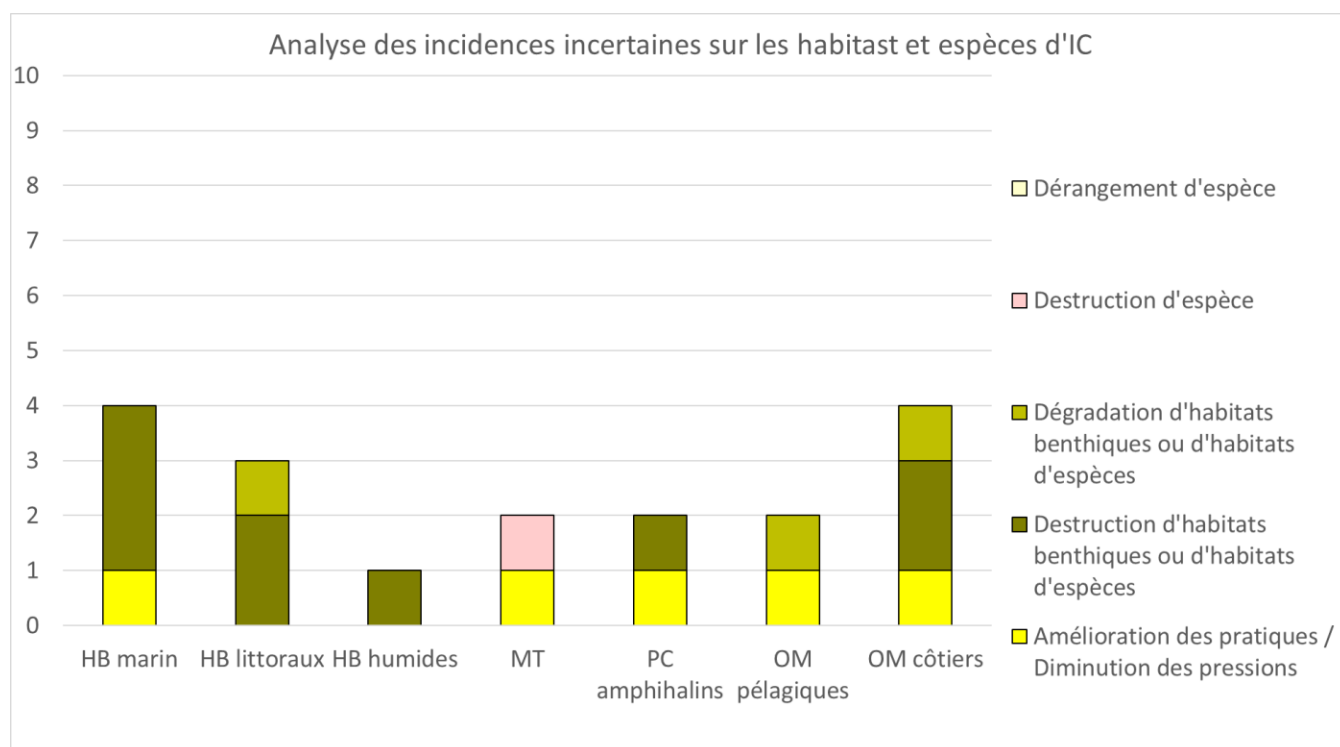
- The creation of specialised bodies for MRE: a scientific council and a management and monitoring committee (sub-action 1 of 05-EMR-A01, sub-action 1 of D01-OM-OE02-AN1);
- Integration as a criterion for the spatialisation of aquaculture areas of sensitive natural environments and environmental targets: sub-action 02 of 02-AQU-A01.

In addition, the preservation actions mentioned in the previous chapter should make it possible to locate and protect the coastline issues and therefore reduce the risks of impacts linked to the development of activities.

2/ An action linked to research on the development of wave, tidal and floating wind energy systems (05-EMR-A02); these sectors have different degrees of maturity, and if no call for tenders is envisaged over the duration of the SBSA action plan, the action provides for the installation of experimental platforms or pilot farms, which could have an impact on sea birds, cetaceans and benthic habitats. Natura 2000 sites in zones 1 and 4 are affected.

Uncertain impacts on CI habitats and species

8 actions may result in uncertain positive or negative impacts on CI habitats and species at this stage. The following graph shows how uncertain impacts are distributed across the CI issue groups.



Uncertain impacts can have either positive effects (related to possible improvement of practices) or negative effects (related to possible destruction or degradation of habitat, destruction or disturbance of species)

The actions concerned are:

- actions potentially leading to developments (03-POR-A02, 09-RSQ-A01). These actions include guidelines for taking into account sensitive areas, raising awareness of environmental issues among stakeholders, and using existing buildings for development. Furthermore, action D06-OE01-AN1, which aims to achieve no net loss of land due to artificialization, should help with limiting the impacts.
- actions leading to possible development of aquaculture activities (02-AQU-A01), aggregate extraction (06-SED-A01), tourism or transport traffic (03-POR-A02, 11-PAY-A03, 11-PAY-A04). Monitoring of these activities will be essential to ensure that there are no negative effects on CI habitats and species.
- and actions aimed *a priori* at better consideration of environmental issues, but whose effects remain too uncertain at this stage on CI habitats and species. These are actions aimed at reducing the pressures associated with fishing (01-PCH-A03) and aquaculture (02-AQU-A01).

6. Analysis of the measures taken to Avoid, Reduce and Compensate - ARC - environmental impacts

The measures taken to avoid, reduce and ultimately compensate for negative environmental impacts are part of the iterative process of the environmental assessment outlined above (SEA methodology). This so-called ARC sequence for minimising the impacts of development projects on biodiversity and the environment is also intended to be applied at public planning policy level such as the Sea Basin Strategy Document, whether in its strategic or operational aspect. However, unlike what is possible in impact assessments for precisely defined projects, we have already highlighted above the difficulty of reaching a precise conclusion on the ability of the operational part of the SBSD to restore GES. Consequently, while it is possible to detail here the avoidance and reduction measures implemented during the process of drawing up the action plan, it is not possible on the other hand to specify the residual impact and therefore to propose potential compensatory measures for this possible residual impact. Finally, as the implementation of the Avoid and Reduce sequence is characterised by its progressive nature as the action plan evolves, the following elements can be considered as the justification of the final choices made.

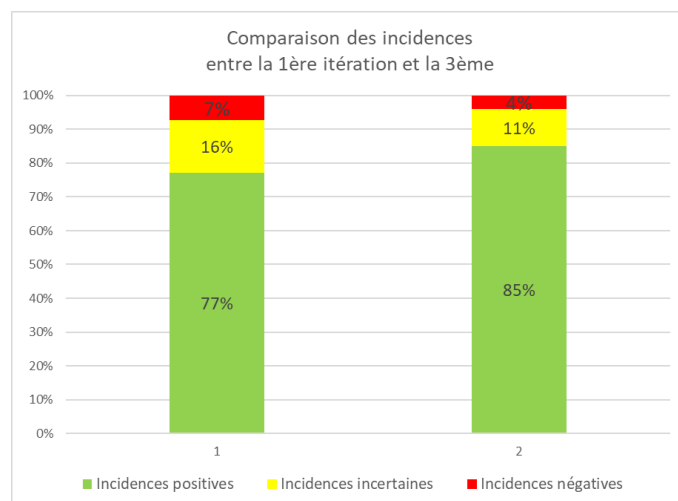
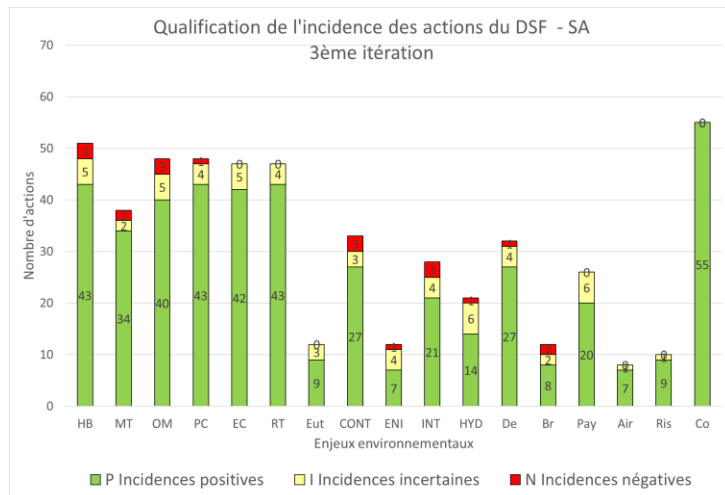
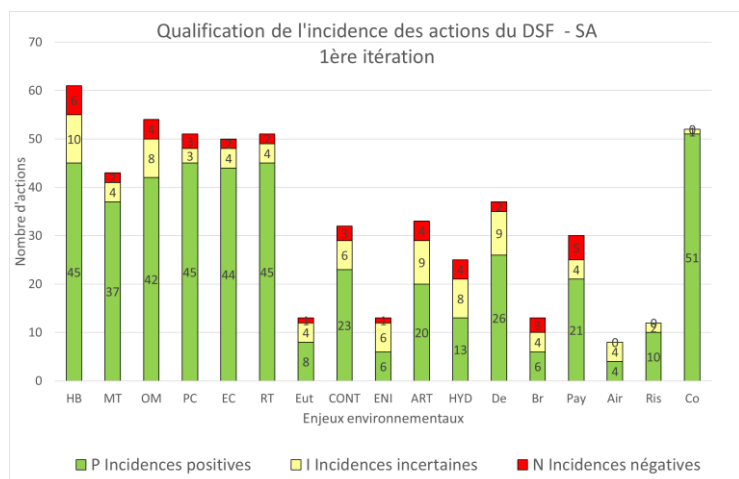
The iterative process of the SEA has made it possible to integrate reduction or avoidance measures into certain actions that initially had potential negative or uncertain impacts. In some cases, this integration has allowed the characterisation of impacts to be changed from negative or uncertain to positive, and in others it has allowed the negative impact to be reduced, although it is not possible to say to what extent. The product of this whole process of progressive improvement of the SBSD SA action plan in terms of its environmental impact is detailed below.

During successive iterations of the SEA:

- some 20 Avoid and Reduce measures were proposed for socio-economic actions with potentially negative or uncertain impacts;
- approximately half of them were included in the action plan sheets, the DIRM having justified its choice not to include the others during discussions with the evaluator (often because these Avoid and Reduce measures were already the subject of other actions, particularly environmental ones).

In addition to taking into account the Avoid and Reduce measures proposed by the evaluator, the development of the action plan has also led to an improvement in impacts, notably with the inclusion of new actions with positive impacts between the first and second versions of the action plan. This improvement was nevertheless reduced at the end of the process by the deletion of actions with positive impacts, because they could not be finalised or judged in favour of them being kept (action on health risk management in aquaculture, action on the hunting of migratory birds).

The product of these different developments in the action plan in terms of its environmental impacts is illustrated globally and in detail by environmental issue in the graphs below.



These graphs clearly show:

- (1) weakening of uncertain impacts, and to a lesser extent, weakening of negative impacts: This progression is explained both by the integration of Avoid and Reduce measures in some socio-economic actions (4 actions have therefore been able to progress positively) and by the addition of new environmental measures generating additional positive impacts (5 new actions have been proposed increasing the number of positive impacts).
- (2) from the point of view of the progression by environmental issue, a decrease in uncertain impacts for many issues, in particular those of the biocoenosis (HB, MT, OM) and those concerning the pressures exerted on the marine environment (Cont, ENI, Int, Hyd). It

is also noted that the negative impacts on the landscape and commercial species and food web have disappeared.

Finally, in addition to these developments directly related to the iterative process of the SEA, it should be highlighted that some actions or sub-actions of the action plan can be considered as Avoid and Reduce measures of another action (when it is an action) or of the same action (when it is a sub-action). These Avoid and Reduce measures directly integrated into the action plan by the creators are summarised in the table below.

Therefore, 7 actions of the action plan are identified that develop an Avoid/Avoid and Reduce logic with regards the 5 actions with potentially negative or uncertain impacts.

Action or sub-action that can be considered as an Avoid and Reduce measure	Justification
Actions related to MREs	
Sub action 1 of Action 05-EMR-A01: Set up and lead a monitoring committee and a scientific council on offshore wind power at South Atlantic coastline level	<p>This sub-action prevents the potential impacts of action 05-EMR-A01 on offshore wind development in advance.</p> <p>This scientific college of recognised experts will improve knowledge of the impacts of MREs, promote practices with the least impact and effective measures.</p> <p>The monitoring committee will make it possible to coordinate actions at coastline level (e.g. scheduling work phases of various projects, avoiding cumulative impacts linked to noise, harmonising the monitoring carried out for the various authorised wind farms); however, at this stage, only one project is envisaged in SA (off the island of Oléron).</p>
D01-OM-OE02-AN1: Prefigure a national coordination body for coastline scientific councils (CSCs) relating to offshore wind power	<p>This action will help to reduce impacts of action 05-EMR-A01 on the development of offshore wind turbines. This action will strengthen the knowledge of the impacts of MRE projects on the components of the natural marine environment and to share</p> <p>Avoid and reduce feedback</p>
Actions related to aquaculture	
Sub action 2 and Sub action 3 of action 02-AQU-A03 "Support procedures for examining authorisation applications to exploit marine cultures"	<p>Predictive modelling of the impacts of an aquaculture farm (SA2) and training of investigating authorities (SA3) will help to reduce the impact of Action 02-AQUA 01 on the planning of future aquaculture vocation zones</p>

<p>Sub action 2 of Action 02-AQU-A01, which provides for the integration of sensitive natural environments and environmental targets as criteria for the spatialisation of aquaculture zones</p>	<p>This consideration of ecological and environmental criteria will limit the impact of potential aquaculture development (02-AQU-A01).</p> <p>In addition, the fact that the new SRDAMs will be integrated into the next SBSA may be taken as an Avoid or reduce measure with regard to the</p>
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	expected compatibility with ETs.
Actions related to transport	
D01-MT-OE03-AN1: Identify and reduce the risks of collision between maritime transport and marine mammals on the Atlantic coastline	This action reduces the risk of collisions that could be caused by action 03-POR-A02 in connection with a possible increase in maritime traffic.
Actions related to developments	
D06-OE01-AN1 aiming at Zero Net Artificialization	This action reduces the impact on actions that may lead to developments, including: 03-POR- A02, 09-RSQ-A01
Actions related to fishing	
D01-OM-OE01-AN1: Identify and reduce the risks of incidental catches for each of the species of sea birds and marine mammals of community interest on the coastline.	The analysis of the risks linked to fishing will make it possible to prioritise the innovation efforts carried out by action 01-PCH- A01: Promote research into technical innovation and better conditions for fishing gear use
Actions related to coastal risks	
D01-HB-OE06-AN3 which aims to better study and assess the impacts of operations to reduce the vulnerability of coastal areas	The improvement in knowledge of this type of operation could be taken into account in action 09-RSQ-A01: Promote an integrated approach to coastal risks and preserve the natural environments that contribute to a dynamic and balanced functioning of the coastline

7. Impact monitoring indicators

The sea basin strategy document (SBSD) consists of four parts, the third of which deals with the methods for assessing the implementation of the SBSB. The monitoring framework is therefore an integral part of this third part, which, together with the action plan, forms the operational part of the SBSB.

The development of this monitoring framework enables France to meet its obligations as regards the two EU framework directives on Marine Strategy (MSFD) and Maritime Spatial Planning (MSPD). It therefore defines the monitoring strategy to be put in place with the following objectives:

- To update and clarify the progression of the existing situation on the maritime coastline;
- To assess the achievement of strategic targets specific to each coastline.

This joint monitoring framework for the environmental and socio-economic strategic targets is therefore, like the SBSB, being developed for the first time. It integrates the MSFD's monitoring framework, which was the subject of a first version during the first cycle of this directive implemented prior to the drafting of the SBSB. This first version of the "SBSB" monitoring framework was finalised at the end of January 2021.

For this environmental assessment, the monitoring framework was mobilised in two ways¹⁶:

- on the one hand, to understand its capacity to improve the monitoring of the progression of the GES deviation, since this capacity determines the possibility to assess the overall impact of the action plan in a more robust way;
- secondly, to understand its capacity to monitor the main environmental impacts identified during the analysis, and in particular the impacts presenting a potential risk for the restoration of the good status of environmental issues, i.e. negative or uncertain impacts.

7.1. Capacity of the monitoring framework to improve the monitoring of the GES deviation

This capacity is directly linked to the improvement of the MSFD's monitoring framework, which is the subject of Annex 1 of the monitoring framework. The improvements for the second cycle proposed in this annex¹⁷ can be set against the assessment of the GES deviation or level of concern that may have been made at the different vocation zones of the coastline - see part 4 of this report. This is the purpose of the table below.

¹⁶ Mobilisation within an extremely tight timeframe given the simultaneous finalisation of the monitoring framework and the environmental report.

¹⁷ And in particular in the tables in part 3 "Summary of the systems integrated in the monitoring programme" of each monitoring programme detailed in annex 1.

Issues	Overall assessment of all VZs	Overall reliability of all VZs	Monitoring frameworks as described in Annex 1 of the DDS
HB	Overall high GES deviation	Low	No system operational, almost 60% not operational but should be at the end of this cycle and more than 40% to be established
MT	Overall average GES deviation	Low	Approximately 70% of the systems are operational, and 30% are not operational but should be at the end of this cycle
OM	Overall low GES deviation	Low	Approximately 50% of the systems are operational, and 50% are not operational but should be at the end of this cycle
PC	Overall high GES deviation	Low	Two out of four systems are operational, the other two should be operational at the end of this cycle In addition, one out of four sub-programmes has yet to be established and will therefore not be operational for the next cycle
EC	Overall average GES deviation	Low	Two thirds of the systems are operational and one third are not operational but should be at the end of this cycle
RT	Not assessed	Not applicable	No monitoring frameworks specifically targeted at this issue
Eut	Overall low GES deviation	Good	All systems are operational
Cont	Overall low GES deviation	Average	Approximately 70% of the systems are operational and 30% are not operational but should be at the end of this cycle
ENI	Overall average GES deviation	Good	Monitoring programme fully under development
Int	Overall average GES deviation	Good	Half of the systems are operational, and the rest are not operational but should be at the end of this cycle
Hyd	Overall high level of concern	Average	40% of systems operational and 60% of systems not operational but should be at the end of this cycle
De	Overall high level of concern	Good	Two out of nine systems to be established and of the others, 50% are operational and 50% not operational but which should be at the end of this cycle
Br	Overall average GES deviation	Good	One in four of the systems to be created and of the remaining three, only a quarter are operational, and three quarters are not operational but should be by the end of this cycle

This table shows that the assessment of the GES deviation should improve significantly during the next cycle, provided that the monitoring frameworks which are not currently

operational are effectively operational by the end of 2026. Only three issues should still have significant uncertainties in terms of assessing their status at that time:

- **benthic habitats**, for which the monitoring framework should be improved, but maintaining a certain number of systems still in the research or experimental stage ("to be established" systems in the table). Given the importance of this issue on the South Atlantic coastline (difficult to assess GES deviation but high overall), we can only recommend that the greatest attention be paid to improving the monitoring framework for this issue;
- **food webs**, which is an issue whose GES is neither defined nor assessed today, and which is not subject to a specific monitoring programme for the next cycle;
- **non-indigenous species**, for which the monitoring programme will not be operational by 2026 as it is still under development. Even if the level of this issue was considered to be fairly low overall on the South Atlantic coastline, it is nevertheless necessary to remain vigilant about the ability to assess it.

7.2. Capacity of the monitoring framework to report on the main impacts identified

The aim here is to understand **the monitoring capacity of the main environmental impacts identified during the analysis**. This refers to the definition of the indicators proposed in the Sea Basin Strategy (SBS) and the operational nature of the monitoring framework put in place to assess them.

In order to do this, we have included all socio-economic actions that are likely to have one or more negative or uncertain environmental impacts. For these, we have studied the indicators planned for the socio-economic and environmental targets (see annexes 6a and 6b of the SBS¹⁸), and have established, on the basis of annexes 3a and 3b of the monitoring system¹⁹, typologies concerning the more or less operational character of these indicators. We also examined the existence of specific indicators for socio-economic activities likely to generate the negative or uncertain environmental impacts, and similarly looked at their more or less operational nature. The following three paragraphs summarise these analyses.

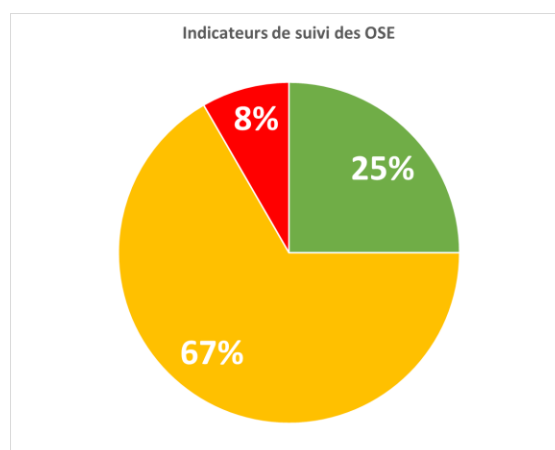
OPERATIONALITY OF MONITORING NEGATIVE OR UNCERTAIN IMPACTS - INTERPRETATION OF MONITORING INDICATORS LINKED TO SOCIO-ECONOMIC OBJECTIVES

¹⁸ Annex 6: strategic targets and associated indicators Part A: socio-economic objectives (6a) and Part B: environmental targets (6b)

¹⁹ Annex 3a: Indicators and data collection frameworks - Part "activities, uses and public policies" and Annex 3b: Focus on Environmental Targets (ETs), Good Environmental Status (GES) criteria and Economic and Social Analysis (ESA)

On the SA coastline, 12 socio-economic actions are likely to have negative (21) or uncertain (58) impacts. In the monitoring system, these actions refer to 36 monitoring indicators linked to the socio-economic objectives. Their operability can be addressed according to the typology and with the following results for the 36 indicators concerned.

Colorisation des indicateurs selon l'Annexe 3a : Indicateurs et dispositifs de collecte de données – Partie « activités, usages et politiques publiques »	
Vert	Dispositif de collecte et Producteur/concentrateur des données
Orange	Au cours du premier cycle, la pertinence de cet indicateur sera étudiée au regard des conditions d'accessibilité aux données et/ou de la faisabilité de programmer un dispositif de collecte dédié ou Dispositif de collecte non renseigné
Rouge	Indicateurs à définir



The monitoring of socio-economic actions with negative or uncertain environmental impacts remains to be clarified during this cycle from the point of view of the indicators linked to the socio-economic objectives, since for more than half of them (orange for 24/36) the relevance of the indicator needs to be verified and/or the data collection system needs to be clarified. A quarter of the indicators are nonetheless operational as they have a data collection system and a data producer. Three remain to be defined (red for 3/36).

Of the ten actions, those with negative impacts are MRE and aquaculture. The operational nature of the socio-economic monitoring indicators is mixed: half are operational for aquaculture (1 green, 2 orange), and more mixed for MREs (1 green, 2 orange, 1 red).

OPERATIONALITY OF MONITORING NEGATIVE OR UNCERTAIN IMPACTS - INTERPRETATION OF MONITORING INDICATORS LINKED TO ENVIRONMENTAL TARGETS

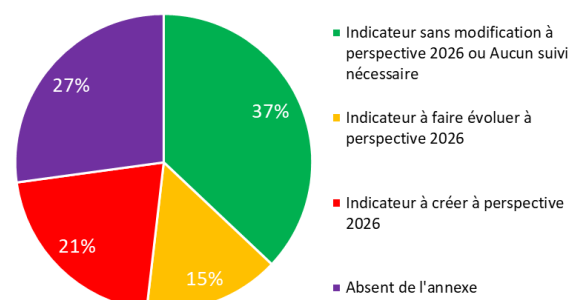
On the SA coastline, the 79 negative and uncertain impacts concern 16 out of 17 issues (excluding Co), with between 1 and 8 impacts per issue. The main issues concerned are HB, OM (8 impacts), Int, Hyd (7 impacts), Cont, Pay (6). Other issues are less affected: PC, EC, ENI, DE (5 impacts), MT, RT, Br (4 impacts), Eut (3 impacts) and Air et Ris (1 impact)

In the monitoring system, the issues related to biocoenosis and pressures refer to 81 monitoring indicators linked to the environmental targets. Their operability can be addressed according to the typology and with the following results for the 81 indicators concerned.

Colorisation des indicateurs selon l'Annexe 3b : Focus sur les Objectifs Environnementaux (OE), les critères de Bon Etat Ecologique (BEE) et l'Analyse Economique et Sociale (AES)

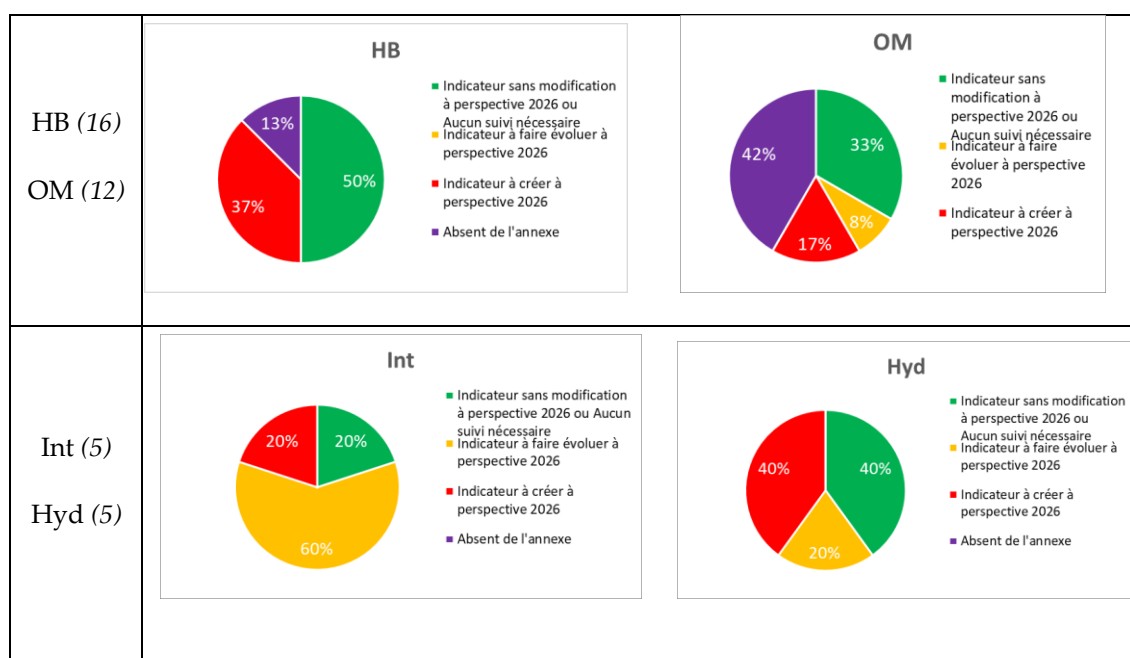
Vert	Indicateur sans modification à perspective 2026 ou Aucun suivi nécessaire (car existant par ailleurs)
Orange	Indicateur à faire évoluer à perspective 2026
Rouge	Indicateur à créer à perspective 2026
Violet	Absent de l'annexe

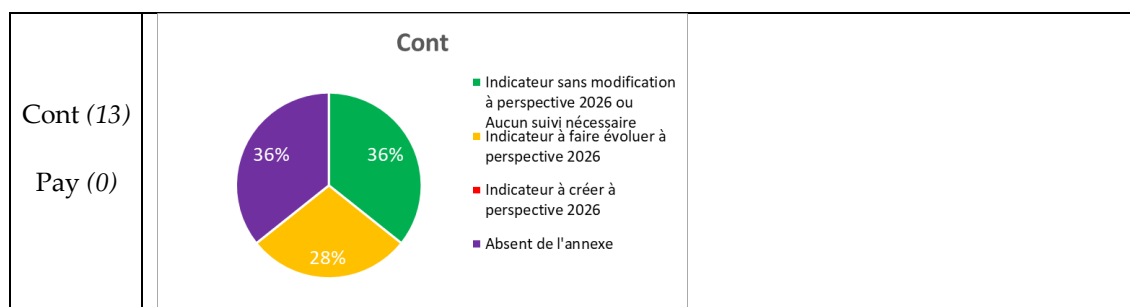
Indicateurs de suivi des OE



The monitoring of socio-economic actions with negative or uncertain environmental impacts seems to be somewhat more operational from the point of view of indicators linked to ET than from the point of view of indicators linked to socio-economic objectives as mentioned above. Indeed, almost 40% of them (green for 30/81) have an indicator that is already operational (No change by 2026 or No monitoring required under the SBSO as it is being carried out elsewhere). However, an effort remains to be made on the other indicators (orange for 12/81): to change the existing indicators to obtain information on the finer indicators in the SBSO framework, and a little more than 20% of indicators are to be created (red for 17/81). It should also be noted that it is not possible to comment on almost 30% of the indicators, as these are not included in annex 3b.

For the main issues related to negative and uncertain impacts, the results are as follows (*in brackets, the number of indicators on each descriptor*):





The operability of monitoring indicators concerning the issues which there are the most negative and uncertain impacts appears to be very mixed. A monitoring effort should be developed in particular on the monitoring of benthic habitats and hydrographical conditions.

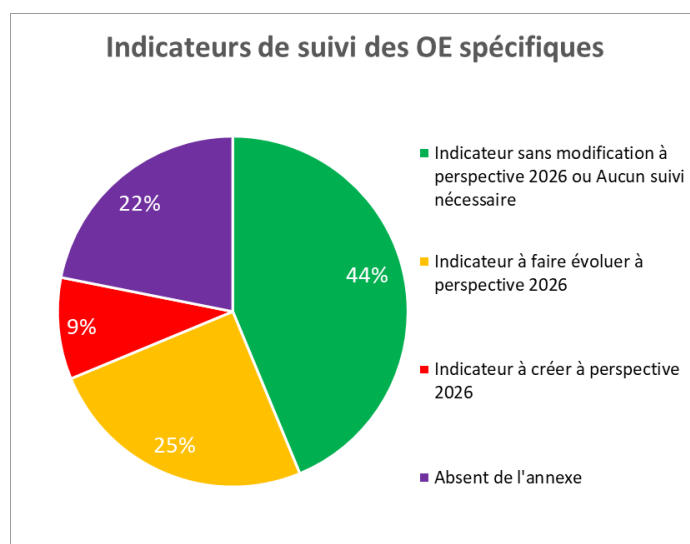
OPERATIONALITY OF ACTIVITY-SPECIFIC ENVIRONMENTAL INDICATORS

Among the 81 indicators for monitoring environmental targets, we were able to identify about 30 (33/81) specific to activities, in particular those likely to generate the negative and uncertain impacts of our 12 socio-economic actions:

- Fishing: commercial fishing (5 - 3 green and 2 purple), foot fishing (1 green), professional and recreational fishing (5 - 2 green and 3 red)
- Aquaculture (2 - 1 green and 1 purple)
- Energy production (2 green)
- Material extraction (6 - 4 green and 2 orange)
- Coastline artificialization (3 orange)
- Maritime transport and Recreational sailing: maritime transport (2 - 1 green and 1 orange), recreational sailing (3 - 1 green, 1 red and 1 purple), Mixed ((3 purple)
- Ports (2 - 1 green and 1 orange)

First of all, as shown in the graph opposite, the indicators that can be identified as specific to activities have a higher overall operability than the indicators as a whole (44% green against 25% orange and 9% red), which is a good thing.

Furthermore, for MREs and aquaculture, which are the main activities relating to negative and uncertain impacts, the results are rather encouraging, as the indicators are quite strongly operational, between 50% and 100%. It should be noted, however, that there are only two specific indicators for each of these activities.



8. List of annexes

Annex 1 - Methodology applied to spatialise the state of environmental issues

Annex 2 - Methodology and details of the initial environmental assessment

→ See the Excel file: "Annex 2 - Initial SA Environmental Assessment"

Annex 3 - Methodology and details of activity trends

→ See the Excel file: "Annex 3 - SA activity trends"

Annex 4 - Methodology and details of the impact analysis

→ See the Excel file: "Annex 4 - SA Impact Analysis"

Annex 5 - Methodology and details of the impact analysis on Natura 2000 areas

→ See the Excel file: "Annex 5 - N2000 SA analysis"

Annex 6 - Summary of the results of part 1 on the cost-effectiveness analysis and the analysis of the economic and social impacts of the environmental actions proposed in the action plans

-> See below

ANNEX 1 - METHODOLOGY APPLIED TO SPATIALISE THE STATE OF ENVIRONMENTAL ISSUES

This annex to the SEA of the operational part of the SBSB describes the methodology used to spatialise the initial state of the 17 environmental issues selected for the environmental assessment at the vocation zone of each coastline. This initial state is characterised by a deviation from Good Environmental Status (GES) when this specific concept of the MSFD applies to an issue and can be assessed, or, if there is not any, by a level of concern when GES does not apply or is not defined.

1. Objective and methodological limitations

This methodology seeks to spatialise the available scientific information developed within the SBSB and approved with the SBS. The three main sources on which spatialisation is based, available in the annexes to the SBS of the SBSB, are as follows:

- (A) - the scientific and technical summary of the initial assessment of the environmental status of marine waters with regard to the 11 descriptors of the MSFD (annex 2a of the SBS);
- (B) - the sheets associated with the environmental targets (annex 6c of the SBS);
- (C) - the environmental issues map, including the mapping of ecological issues as well as the description of the sectors with identified ecological issues (annex 5c of the SBS).

Several limitations arise from these sources. These scientific annexes were carried out in the framework of the MSFD over a period prior to 2018. Some of them also identify a lack of knowledge to establish the status of certain environmental descriptors. Therefore, while the spatialisation work carried out during this SEA - and described in this annex- had not been done before, it still retains the limitations of the original data.

In order to estimate the status of the 17 issues with regard to good environmental status by vocation zone, on the basis of a scientific assessment essentially carried out on a larger scale, the method chosen and presented below highlights "sub-issues" or criteria, adapted and differentiated according to the vocation zone and weighted according to their importance with regard to the issue considered. The estimated status of each issue (labelled 'GES deviation' or "level of concern") has characteristics that depend on (1) the defined sub-issues or criteria, (2) the available sources for their achievement of the GES, and (3) the vocation zone. For each estimate, a reliability level is assigned, which also depends on the three points mentioned. This results in a summary table by vocation zone as illustrated below.

Example of a summary table of results for a vocation area (Extract from annex 2 of the SA Environmental Report)

SUMMARY OF RESULTS - Sector 1 - Gironde Estuary Mer des Pertuis			
Environmental issue	Type of issue (descriptor)	GES deviation	Reliability
Benthic habitats	MM components (D1-HB)	high	+
Mammals and turtles	MM components (D1-MT)	Intermediate	++
Sea birds	MM components (D1-OM)	low	+
Fish and cephalopods	MM components (D1-PC)	high	+
Commercial species	MM components (D3)	High	+
Food webs	MM components (D4)	not assessed	not assessed
Eutrophication	Pressure related (D5)	low	++
Contaminants	Pressure related (D8 and D9)	low	++++
Environmental issue	Type of issue (descriptor)	Level of risk / concern	Reliability
Non-indigenous species	Pressure related (D2)	high	++++
Seabed artificialization	Pressure related (D6)	high	+++
Changes in hydrographical conditions	Pressure related (D7)	high	++
Waste	Pressure related (D10)	high	+++
Noise	Pressure related (D11)	high	+++
Environmental issue	Type of issue (descriptor)	Level of concern	Reliability
Landscape	Societal	high	+++
Air quality	Societal	high	++++
Risks	Societal	high	++++
Knowledge	Societal	low	++++

This summary table is presented as a map in the report and is derived from two intermediate tables: the issues table and the reliability table. The method for constructing these tables is explained below.

For further information, please refer to Annex 2 (Excel) of the environmental report which details by issue the criteria and sources used.

2. Intermediate table of issues: Estimate of deviation from good environmental status (GES) or level of concern

The sub-issues highlighted for estimating and spatialising the status of the 17 environmental issues are based on geographical differences between the areas in terms of habitats, species and anthropogenic activities. The list of sub-issues and their qualification is based essentially on two sources: annex 5c (C) for issues related to the biocoenosis; annex 6c (B) for issues related to pressures. For societal issues, not

assessed in the framework of the MSFD, the list of sub-issues and their qualification are proposed by the consultancy firm.

There are two general cases:

- 1- cases where the GES is assessed on the issue (in whole or in part): each sub-issue is reported according to its status in relation to the GES or according to a parameter approaching it (GES achieved/unachieved) with the aim of estimating an **"GES deviation"**;
- 2- cases where the GES is not assessed: the status of the "sub-issues" is then reported differently than by the GES (e.g. presence/absence of sub-issues favourable or unfavourable to the issue) in order to estimate a **"level of concern"**.

In both cases, an average of the sub-issue status (status between 0 and 1) weighted by its qualification (e.g. habitat of major concern weighted 4 versus low concern weighted 1; high contributory economic activity versus less contributory) is carried out. This weighted average gives an approximate summary of the status of the overall issue entitled "GES deviation" or "level of concern" as presented above. It is qualified according to three categories: "low" (weighted average between 0.8 and 1), "intermediate" (weighted average between 0.5 and 0.8) or "high" (weighted average between 0 and 0.5). The exact result of the weighted average is not retained due to the multiple sources of uncertainty mentioned above.

N.B. : Annex 2 details, by issue, the sources used to qualify the status of the sub-issues.

The following paragraphs are presented to provide more details on the criteria (list of sub-issues and their qualification) and to give some examples of application of the method.

2.1- Where the GES is defined and assessed

Four issues related to the components of the marine environment and two issues related to pressures fall into this category.

Issues related to the components of the marine environment

For the four issues associated with descriptor 1 (benthic habitats, mammals and turtles, sea birds, fish and cephalopods), the GES is assessed at maritime sub-regions level²⁰ (see (A) and (B)).

The "sub-issues" used to spatialise the GES deviation are taken from source (C) annex 5c of the SBS's SBS: each component of the marine environment has been the subject of a scientific summary by maritime sector of the marine sub-regions identifying the habitats and species of concern according to a qualification ranging from major to low. This qualification is used as a weighting: a habitat or species qualified as "major" gets a

²⁰ Marine Sub-Regions: Channel-North Sea (MMN), Western Mediterranean (MO), Bay of Biscay (GdG) and Celtic Seas (MC).

weight of 4; 'strong' a weight of 3; 'medium' a weight of 2; 'weak' a weight of 1. It is therefore through these spatialised and weighted sub-issues that it has been possible to provide a spatial nuance to the GES assessed at the coastline for issues related to marine environment components.

It should be noted that the GES of the food web issue is neither defined nor evaluated and will not be subject to spatialisation at vocation zone level.

Example of application to the benthic habitat issue

Vocation Zone 1 in SA

Annex 5 (C) sets out the following list of habitats of concern in sector 21 (Mer des Pertuis and the Gironde plume), which covers vocation zone 1 (Gironde Estuary and Pertuis Sea Marine Nature Park):

Habitats benthiques et structures géomorphologiques		
Habitats biogéniques	Habitats rocheux	Habitats sédimentaires
Majeur : hermelles Fort : herbier de zostère naine, huitres plates, prés salés atlantiques Moyen : bancs de maërl	Fort : récifs infralittoraux, récifs médiolittoraux	Majeur : vase subtidale, vasière intertidale Fort : sables fins subtidaux, sables moyens subtidaux, sédiments hétérogènes envasés subtidaux Moyen : sédiments intertidaux

Sources (A) or (B) then provide information on the GES status of the habitats of concern, as well as a level of reliability of the status per sub-issue (see section 3 on reliability). This results in the following table:

SA - Zone 1 - Benthic Habitats ISSUE			
Sub-issue	Qualification	Status	Reliability of status
Honeycomb worms	4	0	1
Dwarf eelgrass beds	3	0	1
Flat oysters	3	0	2
Salt marshes	3	0	1
Maerl beds	2	0	1
Infralittoral reefs	3	0.5	1
Mediolittoral reefs	3	0.5	1
Subtidal mud	4	0	2
Intertidal mudflat	4 - not assessed	no assessed	0
Subtidal fine sands	3 - not assessed	no assessed	0
Subtidal medium sands	3 - not assessed	no assessed	0
Subtidal silted mixed sediments	3 - not assessed	no assessed	0
Intertidal sediments	2 - not assessed	no assessed	0
Issue's GES deviation	high	0.12	0.26

Intermediate table of the benthic habitat issue

Therefore the method applied results in the benthic habitats environmental issue having a high GES deviation in SA vocation zone 1.

For more details, see Annex 2 of the Environmental Report.

Pressure-related issues

Two pressure-related issues could be spatialised according to the GES deviation. These are eutrophication, where GES maps by marine sub region are present in annex 6c (B) and can be spatially overlapped with the coastline vocation areas; and contaminants, where metal concentrations and Imposex index maps provide a series of sub-issues and their status with respect to achieving GES. There is no discriminatory qualification in either case (i.e. all sub-issues are equally weighted).

2.2- Where the GES is not defined and/or assessed

Five pressure-related issues and the four societal issues fall into this category.

Pressure-related issues

For the other five pressure-related issues (non-indigenous species, seabed integrity, modification of hydrographical conditions, waste, noise), the GES is not assessed or insufficiently assessed. The initial state of the issue per vocation area is therefore approximated by a "level of concern" assessed by locating the pressure activities identified in source (B) issue by issue, with the exception of changes in hydrographical conditions. In the latter case, the pressure activities are not identified for this issue and the 'level of concern' is based on the 'potential risk of modification of benthic habitats' map in source (A). For the other four issues, the pressure activities are weighted by their importance to the issue (those contributing most to the pressure having the highest weight), with the qualification used as a weighting based on both the source (B) and internal expertise. The spatialisation of activities is mapped by issue in annex 6c (B), see maps produced by the French Biodiversity Agency [OFB] (formerly AFB) in 2017-2018²¹.

Therefore, the greater the number of activities that put pressure on the issue in the area, the higher the level of concern will be.

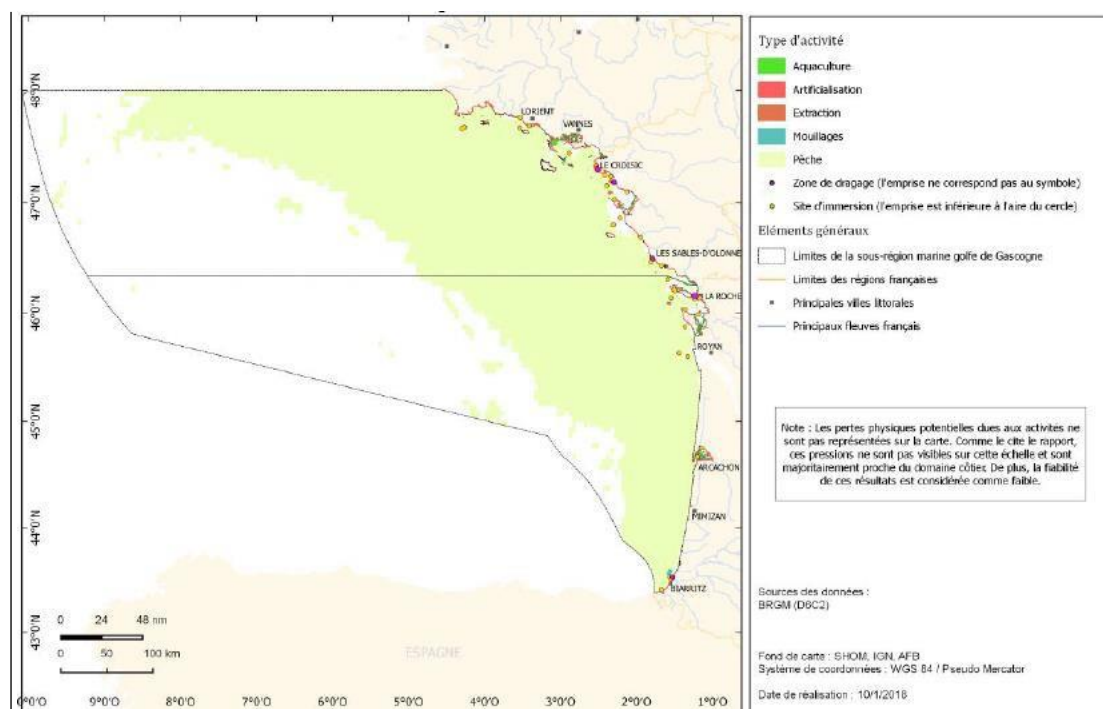
Example of application on the seabed integrity issue

Vocation Zone 1 in SA

In the case of seabed integrity, 7 sub-issues are selected and weighted as follows: fishing with bottom towed gear (2), dredging (1), dumping of materials (1), extraction of materials (1), coastal structures (1), aquaculture (1), anchoring(1).

Annex (B) shows the following map on descriptor D6 associated with seabed integrity:

²¹ All these maps are also available on Cartomer.



This results in the following table, depending on whether the activity selected as a sub-issue is present (status 0) or absent (status 1) in the vocation zone:

SA - ZONE 1- SEABED INTEGRITY ISSUE			
Sub-issue	Qualification	Status	Reliability of the status
	<i>Fishing with bottom towed gear - Qualification 4</i> <i>dredging - Qualification 3</i> <i>dumping of materials - Qualification 3 material</i> <i>extraction - Qualification 3</i> <i>coastal structures - Qualification 3</i> <i>aquaculture - Qualification 3</i> <i>anchoring - Qualification 3</i>	<i>0 = presence of activity in zone 1 = absence of activity in the zone</i>	<i>3: clear presence/absence when reading the map</i> <i>2: assessment of the number/area status of activity 1: visual summary on rough data</i> <i>0: not assessed</i>
Aquaculture	3	0	2
Anchoring	3	0	2
Professional fishing with bottom towed gear	4	0	2
Dumping of dredging material	3	0	2
Dredging	3	0	2
Marine Aggregate Extraction	3	0	2
Coastal structures	3	1	2
Level of concern	<i>high</i>	0.13	0.60

Intermediate table of the benthic habitat issue

Therefore the method applied results in the Seabed Integrity environmental issue having a high level of concern in the SA Vocation Zone 1.

For more details, see Annex 2 of the Environmental Report.

Societal issues

For the four societal issues (landscape, air quality, risks, knowledge), sources outside the SBSDB SBS could be used, although the method sought to rely as much as possible on the documentation provided in the SBSDB (summary annexes on vocation zones, mapping atlases, etc.). The list of sub-issues established for each of the issues was subject to internal expertise within the association in order to best match the issue on the basis of available resources.

In the case of landscape and knowledge issues, unlike pressure-related issues or air quality and risk issues, the selected sub-issues are not sources of pressure but elements that support the issue. For landscapes, the criterion is based on the presence or absence of recognised landscape elements (registered sites, nature parks, major sites, underwater landscape elements). In this case, the level of concern is high when the area has several sub-issues, meaning that the landscapes are of importance in the zone. For the knowledge issue, it is based on the presence of sites which support the production of knowledge on marine environments (Marine Nature Park, N2000, nature reserves, MRE sites subject to impact studies). In this case, the level of concern is high when the zone has few sites favourable to regular knowledge production, assuming that the components of the marine environment are, at first glance, less well known.

Conversely, the sub-issues assessed for air quality identify pressure factors (presence of ports, maritime traffic, algae blooms). Similarly, the risk issue is assessed according to the different risks identified in the zones (industrial risks, flooding, coastline erosion, tsunami). In both cases, the level of concern is higher when the zone has several of these sub-issues.

3. Intermediate reliability table: Assessment of the level of reliability

The **reliability of the GES deviation or level of concern** is the result of a cross between the "reliability scale" which accounts for the level of data used and the reliability of the status of the sub-issues, hereafter referred to as "status reliability":

3.1. Reliability scale

The scientific summaries used as sources to qualify the status of the sub-issues were carried out under the MSFD before 2018 and therefore have the marine sub-regions (MSR) and their sectors as their spatial scale. These perimeters by marine sub-region and sectors do not systematically correspond to the current metropolitan maritime coastlines and their vocation zones. This difference in scale adds a level of uncertainty to the reliability of the results which we have chosen to report through a parameter integrated into the reliability calculation and entitled "scale reliability".

This reliability linked to the scale of our sources is rated between 1 and 2 depending on whether the scientific annexes (A) and (B) provide data at a scale greater than or equal to that of the coastline (1), more precise than that of the coastline (1.5) or equal to the vocation zone (2).

3.2. Reliability of the status

For each sub-issue, a status reliability score is assigned out of 3 (0 meaning that the status of the sub-issue is not assessed, 3 meaning that its status is well defined, assessed and easily

accessible) and then summarised by an average of 1, to reflect the level of reliability of the results of the status by issue.

3.3. Final reliability calculation

The final reliability by issue is the result of a cross between the scale reliability and the status reliability (simple multiplication) resulting in a score between 0 and 2. A classification into 4 categories then gives the final reliability: The "+" is between 0 and 0.5; "++" between 0.5 and 1; "+++" between 1 and 1.5; "++++": between 1.5 and 2.

The Intermediate Reliability Table reflects each of these steps, as illustrated below.

Intermediate Reliability Table				
Environmental issues	Reliability of knowledge	Reliability of the scale	Final calculation of reliability	Reliability
Benthic habitats	0.26	1.00	0.26	+
Mammals and turtles	0.67	1.00	0.67	++
Seabirds	0.06	1.00	0.06	+
Fish and cephalopods	0.09	1.00	0.09	+
Commercial species	0.15	1.50	0.23	+
Food webs				not assessed
Eutrophication	0.33	2.00	0.67	++
Contaminants	0.83	2.00	1.67	++++

Environmental issues	Reliability of knowledge	Reliability of the scale	Final calculation of reliability	Reliability
Non-native species	1.00	2.00	2.00	++++
Seabed artificialization	0.67	2.00	1.33	+++
Modification of Hydrographical conditions	0.33	2.00	0.67	++
Waste	0.67	2.00	1.33	+++
Noise	0.59	2.00	1.19	+++

Environmental issues	Reliability of knowledge	Reliability of the scale	Final calculation of reliability	Reliability
Landscape	0.87	2.00	1.73	++++
Air quality	0.89	2.00	1.78	++++
Risks	0.75	2.00	1.50	++++
Knowledge	1.00	2.00	2.00	++++

Example of an intermediate reliability table for a zone (Extract from annex 2 of the SA Environmental Report)

For more details on the sources used and the results zone by zone, please refer to annex 2 of the environmental report (Excel).

ANNEX 6 - Summary of the results of part 1 on the cost-effectiveness analysis and the analysis of the economic and social impacts of the environmental actions proposed in the action plans

Action identifier	MEMN	NAMO	SA	MED	V4 Action description	Comment on the Environmental Effectiveness (AEC)	Comment on the cost (AEC)	Economic and social impacts
AT01	x	x	x	x	Develop the network of strong protection zones and strengthen their control	Uncertain environmental effectiveness.	Approximately €302,000/coastline of which: - Operation: 1.52 Full Time Equivalent of agent time to support the development and marking of strong protection zones at sea; - Investment: €160,000 for the development of strong protection zones at sea (variable cost according to the number of protections to be put in place) and €50,000 for the test phase of the virtual marking of a strong protection zone.	The impact is twofold: - impact on the development potential or level of activity. In particular for professional fishing, the impact can be significant by imposing constraints on the activity (temporal or spatial prohibition). However, the implementation of a consultation with the affected fishermen, in particular through risk analyses, should limit the impact. Other activities such as aquaculture and MREs could also be affected. Aggregate extraction, on the other hand, which already avoids habitat zones of high concern, should not be impacted. - impact on operating or investment costs. In particular for maritime and port works, if the strong protection zones concern piling areas (significant additional cost). For sailing and water sports, the impacts are expected to be low if the implementation of this action is shared with the users. Other activities such as seaside activities and beach use could potentially be impacted in a similar way.
AT-02	x	x	x	x	Develop the network of marine educational areas	Uncertain environmental effectiveness.	Estimated cost of €44,000/coastline: 0.72 Full Time Equivalent of agent time for drafting and compiling information (6 people/coastline meeting 3 times/year)	These actions on environmental education do not have any socio-economic impacts on sea and coastal activities in the short term and would instead be stimulated by the activities themselves, such as sailing and water sports for example.
AT-03	x	x	x	x	Develop an application integrating regulations and information related to spaces for recreational sailing use	Uncertain environmental effectiveness.	Approximately €35,000/coastline of which: - Operation: 0.5 Full Time Equivalent to carry out an analysis, communication and to advise port managers; - Investment: €5,000 for the deployment of a mobile application for MPA managers.	These awareness-raising actions do not have any socio-economic impacts, but they could make sailing activities more ethical. Trials have already been set up by user associations.
AT-04	x	x	x	x	Improve the marine environment monitoring framework	Uncertain environmental effectiveness.	Approximately €184,000/coastline of which: - Operation: 0.97 Full Time Equivalent of agent time for training, drafting of issue sheets, strengthening of relations between the decentralised administrations and the judicial authorities; - Study: €125,000 for mapping of sensitive sites.	These actions concern the training of field staff and the organisation of services. There are no socio-economic impacts on sea and coastal activities.
AT-05				x	Implement marine environment education projects in primary and secondary schools and colleges. [To be validated with the Ministry of Education]	Uncertain environmental effectiveness.	Approximately €628,000/coastline of which: - Operation: 1.3 Full Time Equivalent to organise training for trainers, raise awareness of the marine environment among local authorities and national education authorities; - Investment: €550,000 for the environmental education scheme.	These actions concern the training of field staff and the organisation of services. There are no socio-economic impacts on sea and coastal activities.
AT-06	x	x	x	x	Submit and implement a Life project for "Mobile marine species"	Uncertain environmental effectiveness.	Approximately €100,000/coastline of which: - Operation: 0.6 Full Time Equivalent of agent time for preparing and delivering the Life project "Mobile Marine Species" to the EU; - Investment: €62,500 for implementing "Mobile Marine Species" Life project.	This action has no direct impact on the practice of sea and coastal activities but could improve their conditions by releasing funding for better protection of the environment.
AT-08				x	Set up coordinated awareness campaigns at coastline level, adapted to the different issue categories and to the sea and coastal users	Uncertain environmental effectiveness.	Approximately €2,777,000/coastline of which: - Operation: 1.275 Full Time Equivalent for awareness-raising activities; - Investment: €2,340,000 for financial support to associations for raising awareness amongst sailors and €360,000 per coastline for awareness raising specifically dedicated to yachting and boat hire companies.	These actions to raise awareness of environmental issues among the various categories of sea and coastal users have no measurable socio-economic impacts but aim to influence their future practices. They are even stimulated by some of the activities themselves.
AT-09				x	Improve the consideration of the cumulative effects of anthropogenic activities and ecological load capacity	Uncertain environmental effectiveness.	Approximately €238,000/coastline of which: - Operation: 0.625 Full Time Equivalent for the identification of existing pressures in terms of activities and projects in a pilot MPA and for the deployment of the landfill impact management method; - Study: €200,000 for the study and creation of a dynamic tool for the consideration of cumulative effects in projects and for deployment of the method.	These actions develop methodologies and knowledge and therefore have no socio-economic impacts on sea and coastal activities. With time, the consideration of cumulative effects could lead to constraints or even limitations for the activities concerned, particularly wind farms.

AT-10				x	Structure the training of State and local authority services to consider environmental targets in their missions	Moderate environmental effectiveness. Training of State and local authority services may help to improve the consideration of environmental targets, but other factors may limit this effect.	Estimated cost of €21,000/coastline: 0.35 Full Time Equivalent of agent time for training of the State's investigating authorities in connection with the human resource development centres (CVRHs).	These actions concern training the agents of the State's investigating authorities. There are no socio-economic impacts on sea and coastal activities.
D01-HB-OE01-AN1	x	x	x		Formulate management recommendations for activities taking place on salt marshes by relying on a dedicated monitoring centre.	Potentially high environmental effectiveness. The action is not directly aimed at implementing concrete management actions for the salt marshes, but the management recommendations formulated are necessary to provide a framework for the activities taking place on the salt marshes.	Approximately €185,000/coastline of which: - Operation: 0.96 Full Time Equivalent for monitoring on 2 workshops sites, monitoring studies; - Study: €127,000 for a study on management recommendations.	This action of observing the environmental state of salt marshes could eventually with time have an impact on farming practices, but also on certain activities such as recreational fishing, particularly on foot fishing, coastal tourism or certain types of sailing or water sports that would come to visit these environments too often.
D01-HB-OE03-AN1	x				Create a monitoring centre on the type of use of the foreshore (MEMN)	Moderate environmental effectiveness. The action's effectiveness may be weakened by the fact that the sub-actions are dependent on each other (need to first of all define the methods for creating the monitoring centre, the status report of visitor numbers and then share the knowledge acquired).	Approximately €710,000/coastline of which: - Operation: 2.35 Full Time Equivalent for managing the monitoring centre, monitoring the number of people visiting the foreshore and the places frequented and communicating the results of the studies and advising on minimising the impact of anthropogenic activity on the foreshore; - Investment/study: €569,000 for the acquisition of data on the use of the foreshore.	This action to improve knowledge and raise awareness has no socio-economic impacts, but it could make the activities carried out on the foreshore more ethical, particularly recreational foot fishing.
D01-HB-OE06-AN1	x	x	x	x	Strengthen the consideration of benthic habitats in offshore authorisations	High environmental effectiveness. The relevance of the obligations imposed during authorisations will strengthen the preservation of benthic habitats.	Approximately €229,000/coastline of which: - Operation: 0.4 Full Time Equivalent to check compliance with the targets set by the SBSDs for artificialization and update the guides; - Investment: €205,000 for the development of a mapping tool; creating a data bank and preparation of guides by type of activity.	For the various operators whose activities may have an impact on benthic habitats (in particular, ports, sailing, MRE, aggregate extraction, underwater cables, maritime works, marine aquaculture), this action should make it easier to understand the obligations and constraints to be taken into account when submitting an authorisation application. In this sense, it can make the preparation of authorisation applications more efficient.
D01-HB-OE06-AN2	x	x	x		Modification of the description of the action: Re-examine the framework for issuing exonerating trawl fishing authorisations and dredge fishing authorisations in the 3-mile band	High environmental effectiveness. Stock conservation will be strengthened by targeting exonerating trawl fishing authorisations and dredge fishing authorisations in the 3-mile band.	Approximately €84,000/coastline of which: - Operation: 0.4 Full Time Equivalent of agent time for identifying habitats of concern on each coastline, monitoring studies and examining authorisation renewals for exonerating trawl fishing or dredge fishing; - Study: €40,000 per coastline for an environmental study and a socio-economic study.	The impact of this action on trawl and dredge fishing carried out within the 3-mile zone will depend on how the review of authorisations is implemented. A local approach based on an analysis of the issues in each affected sector, similar to what is already done through risk analyses carried out in Natura 2000 areas, can allow for the fine-tuning of authorisations while allowing fishing to take place where there are no habitats of concern. On the other hand, an outright ban would have significant impacts, particularly on dredge fishing, which has little room to fall back on because it is tied to fixed fields. Some of the affected vessels are highly dependent on access to the 3-mile zone. Socio-economic analyses are planned to take adjustment margins of the activities concerned into account, which should make it possible to limit the impacts
D01-HB-OE06-AN3	x	x	x	x	Share better knowledge of the impacts of operations to reduce the vulnerability of coastal areas	Uncertain environmental effectiveness. At first glance, the action has no direct environmental impacts, but capitalising on pre-existing knowledge is nevertheless essential to direct the reduction of the vulnerability of areas towards greater sustainability.	Estimated cost of €57,000/coastline: 0.95 Full Time Equivalent of agent time for the use of pre-existing hydro-sedimentary data to reduce the vulnerability of areas, for monitoring the study, inventory of existing studies and dissemination of information	These actions are directed towards improving knowledge of erosion and accretion phenomena, in particular to consider soft protection methods. Public investments will be mainly affected, but positive socio-economic impacts are expected on activities vulnerable to flooding or erosion hazards.
D01-HB-OE7-AN1				x	Strengthen knowledge of the environmental status of red coral in the Mediterranean and ensure, where necessary, its preservation	High environmental effectiveness. The effectiveness of the action may be weakened by the fact that the sub-actions are dependent on each other (need to first of all carry out a diagnosis of red coral extraction and then strengthen the regulations).	Approximately €65,000/coastline of which: - Operation: 0.25 Full Time Equivalent of agent time for monitoring studies and modification of the regulations on red coral by the investigating authorities - Study: €50,000/coastline to make an inventory of and analyse data on the quantities of extracted red coral.	This action affects a limited number of fishermen who operate within an already highly regulated framework, with selective and low impact harvesting practices. The industry is already taking action to preserve coral beds (in Corsica, for example) and will be involved in adapting the regulations as knowledge improves. This context suggests that these economic activities will adapt well to any potential restrictions.

D01-HB-OE09-AN1				x	Implement the Mediterranean strategy for managing ships' anchorings	High environmental effectiveness. This action could contribute to the reduction of pollution risks in ports.	Approximately €6,328,000/coastline of which: - Operation: 1.3 Full Time Equivalent of agent time for marking out regulated areas, raising awareness, consulting with sailors to define these areas and get their support on complying with these regulatory measures and monitoring Light Equipment Anchoring Area (ZMEL) projects - Investment: €5,000,000 for the implementation of ZMEL projects (approx. €625,000 per project all inclusive (studies, investments)) for a possibility of 8 projects, and €1,250,000 for marking out anchorage areas and guidance towards responsible measures	This action could have an impact in terms of the operation of sailors' and certain water sports enthusiasts' activities, such as diving for example, given the importance of these activities in the Mediterranean. It should make it possible to organise anchorages in order to limit, as much as possible, unauthorised practices in certain spots that are sometimes over-frequented, in particular by raising users' awareness. It could also lead to significant investment costs for the local authorities responsible for implementing them.
D01-HB-OE09-AN2				x	Set out the sustainable management strategy for Mediterranean diving sites	Moderate environmental effectiveness. Improved knowledge will contribute to the preservation of water quality and resources, but the effectiveness of the action will depend on the real involvement of the users of the diving sites.	Approximately €470,000/coastline of which: - Operation: 1.32 Full Time Equivalent of agent time to assist in the creation of tools for the acquisition of knowledge on diving and consultation; - Study: €360,000 to create new tools to facilitate the acquisition of knowledge on diving and €30,000 for the development of sites.	This action could have an impact in terms of scuba diving operation, which is very present on the Mediterranean coast. Nevertheless, actions are already underway with professionals, in particular so that they avoid setting new anchors and favour rotation on sites, thus limiting damage to the environment and too many visitors.
D01-HB-OE09-AN3				x	Reduce the impact of gangui fishing in Posidonia sea grass bed areas	High environmental effectiveness. This action could significantly contribute to the preservation of Posidonia sea grass beds.	Estimated cost of €12,000/coastline: 0.2 Full Time Equivalent of agent time for the instruction of European fishing authorisations (EFA) and for the modification of the management plan for small Mediterranean trades	Gangui fishing now relates to only about ten fishermen on the Mediterranean coastline in the Provence-Alpes-Côte d'Azur region. The gradual cancellation of authorisations following retirement, or the sale of a boat should limit the impact on the professionals concerned.
D01-HB-OE09-AN4				x	Develop and implement a sustainable cruise management strategy in the Mediterranean	Potentially high environmental effectiveness. Effectiveness dependent on awareness-raising measures for cruise industry professionals.	Approximately €550,000/coastline: - Operation: 0.32 FTE agent time to support the development, management and organisation of cruise ship anchorings and to raise awareness; - Investment/study: €350,000 for studying visitor numbers, the development, management and organisation of anchorings for cruise ships; - Awareness raising: €180,000 per coastline for awareness-raising targeting cruise passengers.	This action could eventually lead to impacts on the operation, by introducing a more sustainable management of cruise activity, which is growing strongly in the Mediterranean, in particular by organising the anchoring of cruise ships on certain sensitive sites. The aim is to improve knowledge of the issues related to this activity, in consultation with the stakeholders, and to raise their awareness. In terms of competition, the challenge will also be to promote these practices at Mediterranean level.
D01-HB-OE10-AN1				x	Strengthen the awareness of the sensitivity of deep-sea habitats in the Mediterranean	Potentially high environmental effectiveness. There is a lack of knowledge about deep-sea habitats in the Mediterranean. However, the recommendations expressed may lead to appropriate regulatory measures.	Estimated cost of €28,500/coastline: 0.47 Full Time Equivalent of agent time to make a recommendation to the European Commission and disseminate the French mapping of vulnerable marine ecosystems, consultation with fishermen and formulation of recommendations.	The impact of this action on fishing, particularly trawling, can be significant by prohibiting all fishing activity in certain areas. However, the consultation that will be carried out with the industry as part of the risk analyses could make it possible to target the efforts already under way, to reduce overexploitation of fishing resources in the Mediterranean in the sectors identified in this action.
D01-HB-OE10-AN2		x	x		Contribute to strengthening the awareness of the sensitivity of deep-sea habitats in the Atlantic at community level	Potentially high environmental effectiveness. There is a lack of knowledge about deep-sea habitats in the Atlantic. However, the recommendations expressed may lead to strong regulatory measures.	Estimated cost of €6,000/coastline: 0.1 Full Time Equivalent of agent time to formulate recommendations and support consultation with fishermen.	This action has an impact on bottom fishing by both French and foreign trawlers. For the French section, this ban is the subject of an agreement with the professionals. The impact on their activities is significant, but the consultation work carried out has enabled visibility and sharing of the issues.
D01-HB-OE10-AN3	x				Assess the level of interaction of activities with particular geomorphological structures at stake and adapt regulations if necessary	Potentially high environmental effectiveness. There is a lack of knowledge about particular geomorphological structures, which makes it difficult to assess the impact of activities on them, but action is needed in the process of proposing regulatory measures for the protection of these structures.	Approximately €604,000/coastline of which: - Operation: 3.4 Full Time Equivalent of agent time for monitoring the study and support for the regulatory proposal; - Study: €400,000 for the study on improving knowledge of particular geomorphological structures and assessing the impacts of fishing on them.	This action targets 3 sectors with particular geomorphological structures and is particularly aimed at professional fishing activity. The Ridens de Boulogne sector is in a Natura 2000 area and, as such, is already the subject of negotiations within the framework of the Objectives Document (DOCOB) with professional fishermen. In the Central Channel sector, the impact of the actions will depend on the precise marking of the sector to be protected, as fishing is essentially practised on the edges of the target area. Finally, at the Roches Douvres site, on the border between Normandy and Brittany, for the Normandy part, the pelagic trawlers present on the site do not touch the bottom and therefore do not impact the habitats.

D01-MT-OE01-AN1	X	X	X	X	Strengthen the supervision and regulation of outdoor sports and leisure activities affecting marine mammals and commercial marine mammal observation activities	High environmental effectiveness. Effectiveness will be achieved through better compliance of regulations by outdoor sports and leisure activities.	Approximately €309,000/coastline of which: - Operation: 0.8 Full Time Equivalent of agent time for reinforcement of local regulations relating to outdoor sports and leisure activities and on marine mammal observation activities as well as the implementation of awareness-raising actions; - Training and awareness: €261,000 for raising public awareness of good marine mammal observation practices.	The impact of this action relates to certain practices observed within sailing and water sport activities, and coastal tourism. However, this impact would be accepted by professionals if, despite stricter regulation, the observation of marine mammals remains possible subject to conditional authorisation.
D01-MT-OE02-AN1	X		X	X	Reduce the impact of incidental catches of marine turtles by training deep-sea fishermen and maintaining an adequate network of care facilities	Moderate environmental effectiveness. The action's effectiveness will depend on the ability of deep-sea fishermen to avoid incidental catches through the training they will have received.	Approximately €236,000/coastline of which: - Operation: 0.42 Full Time Equivalent of agent time, monitoring awareness-raising actions among deep-sea fishermen of good practices to avoid incidental catches; - Investment: €180,000/coastline for the maintenance and efficiency of the network of marine turtle care facilities; - Awareness raising: €30,000/coastline for raising awareness among deep-sea fishermen of good practices to avoid incidental catches.	These actions aim to participate in the evolution of fishing practices by intervening in the training of professionals. The socio-economic impacts generated by these awareness-raising actions are difficult to estimate.
D01-MT-OE03-AN1	X	X	X		Identify and reduce the risk of collision between maritime transport and marine mammals at the Atlantic coastline	Moderate environmental effectiveness. Setting up the cetacean position-sharing system would make it possible to avoid collisions, but there is a lack of knowledge about the status of marine mammal populations.	Approximately €219,000/coastline of which: - Operation: 1.705 Full Time Equivalent for information on the International Whaling Commission's database for collision phenomena and to support the implementation of a cetacean position-sharing system on the coastline; - Investment/Training: €117,000 for the creation of a position-sharing system and to provide training content on collisions.	The socio-economic impact on shipping activities (maritime transport, professional and recreational fishing) of these observation and knowledge-sharing actions cannot be estimated. However, this could result in longer distances or delays.
D01-MT-OE03-AN2				X	Reduce the risk of collision for cetaceans along the Mediterranean coastline by submitting a proposal for a Particularly Sensitive Sea Area (PSSA) to the International Maritime Organisation (IMO) developed jointly with Italy, Monaco and Spain and extend the use of the REPCET system	Potentially high environmental effectiveness. Little is known about cetacean collisions, but the submission to the International Maritime Organisation (IMO) of a proposal for a particularly sensitive sea area and the recommendations expressed could lead to strong regulatory measures. The effectiveness of the action may however be weakened by the fact that the sub-actions are dependent on each other (first of all, carrying out the studies, then the submission of the file at European level).	Approximately €283,000/coastline of which: - Operation: 2.05 Full Time Equivalent for support by investigating authorities; - Study: €100,000 for the environmental study and €60,000 to accelerate R&D.	This action is expected to have only a residual impact in terms of the development of port activity and maritime transport, in particular because it is implemented on a multi-country basis, therefore limiting the risk of distortion of competition between ports. However, as ships are already not travelling at full speed for energy saving reasons, if this were to result in further speed reduction measures, this could have an impact on maritime transport.
D01-OM-OE01-AN1	X	X	X	X	Identify and reduce the risks of incidental catches for each of the species of community interest	Potentially high environmental effectiveness. Due to a lack of knowledge about the risks of incidental catches, the effectiveness of the action may be weakened by the fact that the sub-actions are dependent on each other (first of all, the need to develop a national analysis method, to carry out a risk analysis, then to test the method and finally to propose an appropriate regulation)	Approximately €455,000/coastline of which: - Operation: 2.37 Full Time Equivalent of agent time for the development of the risk analysis strategy and the regulatory proposal by investigating authorities; - Investment/Study: €12,000 for the development of a national risk analysis method and €200,000 for comparative studies of measures and €100,000 for risk analysis for all species of community interest.	The impact may be more or less significant depending on the provisions to be made: from a temporal ban on certain areas which would be very detrimental to fishing activity, to the modification of fishing practices or the fitting of specific devices which may have impacts in terms of the organisation of work on the vessel. Several initiatives to test different solutions are already being carried out with fishermen, in particular in the framework of the Shearwater Management Plan. The problem of incidental catches of dolphins is particularly present on the NAMO (North Atlantic Western Channel) and SA coastline.
D01-OM-OE02-AN1	X	X	X	X	Prefigure a national coordination body for coastline scientific councils (CSC) related to wind energy at sea	Uncertain environmental effectiveness. At first glance the action has no direct environmental impacts, but the prefiguration of a national coordination body for scientific councils is essential in the process of establishing regulatory measures.	Estimated cost of €216,000/coastline: 3.6 Full Time Equivalent of agent time for the initiation of a knowledge acquisition programme to limit the impacts of offshore wind energy.	The establishment of a knowledge acquisition programme aimed at limiting the impacts of offshore wind farms, which would be monitored by a governance body of coastline scientific councils, should help to make authorisations more secure and limit disputes.

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D01-OM-OE03-AN1	x	x	x	x	Develop and implement appropriate management and protection tools for sea bird species of high concern in the marine sub-region	High environmental effectiveness. The effectiveness of the action could be weakened by the fact that the sub-actions are dependent on each other (first of all, identification of relevant species and then development of management and protection tools for them).	Approximately €98,000/coastline of which: - Operation: 0.91 Full Time Equivalent of agent time divided among 6 people for this national body and for support in developing a local action plan; - Study: €43,000 for the identification of particular species for which the development of appropriate management measures is relevant.	This action calls for an improvement in knowledge before being able to define the management operations more precisely, the socio-economic impact of which is therefore difficult to estimate to date.
D01-OM-OE04-AN1	x	x	x	x	Monitor and control introduced and domesticated species on sea bird breeding sites.	High environmental effectiveness. This action contributes to improving the status of sea bird populations (1- Biodiversity) through the implementation of a trapping strategy for introduced and domesticated species on sea bird breeding sites.	Approximately €135,000/coastline of which: - Operation: 0.04 Full Time Equivalent of agent time for identification of sites of high concern eligible for monitoring or reduction measures for introduced and domesticated species and to support the implementation of the trapping strategy for these species - Investment: €132,000 for identification of sites of high concern eligible for monitoring or reduction measures for introduced and domesticated species, as well as the implementation of the trapping strategy.	This action could have a very limited impact on activities such as foot fishing or coastal tourism, particularly because it will, in all cases, be very targeted in terms of area and time. The investments to be made are likely to be public and without generating any effects on economic activities. Finally, with time, the effects of this action could even turn out to be positive for the activities.
D01-OM-OE05-AN1	x	x	x	x	Identify, maintain and restore mediolittoral and functional sea bird habitats that are degraded and/or exposed to coastal habitat compression.	Potentially high environmental effectiveness. This action contributes to the improvement of the status of sea bird populations (1- Biodiversity) through the restoration of mediolittoral habitats and functional habitats for sea birds that have been degraded and/or exposed to coastal habitat compression. However, the effectiveness of the action may be weakened by the fact that the sub-actions are dependent on each other.	Approximately €566,000/coastline of which: - Operation: 0.26 Full Time Equivalent of agent time to support the identification, maintenance and restoration of coastal habitats and functional habitats for sea birds; - Investment/study: €150,000 € for bibliographic analysis, inventory and restoration of habitats; €200,000 for the acquisition of sites and the implementation of restoration measures as well as €250,000 for the implementation of an action to restore intertidal habitats.	This action calls for an improvement in knowledge before being able to define, more precisely, the restoration operations that could locally restrict the number of visitors to the foreshore. This could occasionally limit seaside activities and perhaps some water sports and foot fishing activities.
D01-OM-OE06-AN1	x	x	x	x	Strengthen awareness of the sensitivity of species to disturbance (sea birds, marine mammals and turtles) in offshore permits and local regulations.	High environmental effectiveness. The implementation of appropriate regulatory measures will improve the preservation of species and their habitats, but the effectiveness of the action may be weakened by the fact that the sub-actions are dependent on each other (firstly, the acquisition of knowledge on the sensitivity of species to disturbance; secondly, the development of guides and finally, the implementation of spatial protection measures).	Approximately €305,000/coastline of which: - Operation: 2.66 Full Time Equivalent of agent time for defining spatial protection measures to be adopted (15 people trained up to 25 days per person/coastline); - Study: €145,000 for the creation of an evolving mapping tool.	For the various operators whose activities may have an impact on marine species (in particular, MRE, aggregate extraction, submarine cables, maritime works, marine aquaculture), this action should make it easier to understand the obligations and constraints to be taken into account when submitting an authorisation application. In this sense, it can make the preparation of authorisation applications more efficient.
D01-OM-OE06-AN2	x	x	x	x	Structure the practice of coastal and marine sports and leisure activities (information, raising awareness and regulation) on issues of sensitivity of species and environments	Moderate environmental effectiveness. Effectiveness will depend on compliance with the regulations by those involved in coastal and marine sports and leisure activities.	Approximately €40,000/coastline of which: - Operation: 0.5 Full Time Equivalent of agent time for the implementation of spatial protection measures, for consultation and to support the development of an educational resource centre, educational methods and tools - Awareness raising and communication: €10,000/coastline for disseminating specialised information and adapted prevention messages and establishing a module in the professional training of water sports instructors	This action could have an impact on seaside activities, water sports and coastal tourism. Nevertheless, even if its implementation should lead to spatial or even temporal bans/limitations on certain activities, a common acculturation will allow practitioners to invest in these issues and the action should not be perceived as detrimental.
D01-PC-OE01-AN1	x	x	x	x	Review the regulations on elasmobranch capture and, on this basis, identify the actions to be implemented at national and local level	Potentially high environmental effectiveness. At first glance, the action has no direct environmental impacts but could lead to strong regulatory measures. However, the effectiveness of the action may be weakened by the fact that the sub-actions are dependent on each other (first of all, the mapping of the presence and sensitivity of the species, then reviewing of regulations and finally, the development of the management plan based on the results of the mapping).	Approximately €239,000/coastline of which: - Operation: 1.725 Full Time Equivalent of agent time for monitoring studies and compiling data, assisting in reviewing regulations concerning prohibitions on elasmobranch capture and drafting and annual monitoring of a management plan - Investment/Study: €60,000/coastline for studying and mapping the presence and sensitivity of the various regulated elasmobranch species; €50,000 for reviewing regulations on the prohibition of elasmobranch capture and €25,000 for drafting and annual monitoring of a management plan.	These actions aim to strengthen the regulations for the protection of elasmobranch species: the aim is to better protect elasmobranchs, for example by changing the status of certain species from "unregulated" to "banned from extraction". Some coastlines are more affected than others (e.g. MED). Impacts on professional fishing activity could result in necessary adaptations to fishing practices (e.g. time limits on fishing to take account of life cycles) to limit incidental catches or to compensate for bans.

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D01-PC-OE01-AN2					x	Raise awareness and train users to recognise and deal with elasmobranchs that are likely to be caught accidentally, and improve reporting of such captures	Moderate environmental effectiveness. Effectiveness dependent on awareness measures and training of professional and recreational fishermen in elasmobranch recognition (potentially positive impact).	Approximately €73,000/coastline of which: - Operation: 0.2 Full Time Equivalent of agent time for training in elasmobranch species recognition; - Training: €60,000 for training in the recognition of elasmobranch species; - Communication: €750 for the production of guides to help recognise elasmobranch species.	These awareness-raising actions have no measurable socio-economic impacts among the various categories of sea and coastal users of the issues involved in preserving elasmobranchs. However, they will result in a slight increase in administrative costs (declarations), particularly for professional fishermen.
D01-PC-OE02-AN1	x	x	x	x		Develop and implement a multi-species National Action Plan (NAP) for elasmobranchs	High environmental effectiveness. The effectiveness of the action may be weakened by the fact that the sub-actions are dependent on each other (first of all, the development of a national plan and then its implementation).	Approximately €153,000/coastline of which: - Operation: 0.87 Full Time Equivalent of agent time for support in awarding protected species status to elasmobranchs, drafting the National Action Plan and supporting the implementation of the multi-species National Action Plan for elasmobranchs; - Investment/Study: €100,000 for the cost of drafting the National Action Plan and for the implementation of the multi-species National Action Plan for elasmobranchs.	These public policy planning and regulatory actions for the protection of elasmobranchs may have consequences, particularly for shipping activities. However, it is not possible to consider these impacts at this stage, even if it can be claimed that they are likely to be moderate, as the National Action Plan is to be developed in consultation.
D01-PC-OE3-AN1	x	x	x	x		Develop and implement a national diadromous fish migratory plan for optimised management of migratory fish throughout the land-sea continuum	Potentially high environmental effectiveness. Little is known about migratory species. The implementation of the national diadromous fish migratory plan through restrictive measures adapted to the issues would make it possible to improve the status of stocks. However, the effectiveness of the action may be weakened by the fact that the sub-actions are dependent on each other (firstly the development of a national plan and then its implementation).	Approximately €22,000/coastline of which: - Operation: 0.15 Full Time Equivalent of agent time for the development of the plan and support for the implementation of the National Diadromous Fish Migratory Plan (PNMA); - Investment: €12,500 for the implementation of the National Diadromous Fish Migratory Plan (PNMA).	These actions for the operational implementation of public policy and regulations for the protection of migratory fish may have consequences, particularly for activities in the estuaries (fishing, ports, etc.). However, it is not possible to consider these impacts at this stage, even if it can be claimed that they are likely to be moderate.
D01-PC-OE3-AN2	x	x	x	x		Avoid or reduce the risks of damage to the population dynamics of diadromous species linked to captures in sectors where diadromous fish are of concern, in addition to existing management plans	Potentially high environmental effectiveness. Management plans would reduce the risk of capture from fishing (pro/recreational) and during periods of risk in estuaries.	Approximately €149,000/coastline of which: - Operation: 0.85 Full Time Equivalent of agent time for support in drafting the National Action Plan and establishing a management model; - Investment: €175,000 for a study to identify the sectors where diadromous fish capture is most significant, on elver capture on 3 pilot sites and €40,000 for the establishment of land-sea management plans for diadromous fish stocks.	This action is part of an already highly regulated framework for diadromous fishing. However, for professional fishing, the impact of this action may be significant if it results in a decrease in extraction authorisations. Fishermen often have little room to fall back on other species.
D01-PC-OE5-AN1	x	x	x	x		Strengthen the protection of Important Functional Fishing Areas (ZFHi), in particular by setting up pilot Fishing Conservation Areas (FCA) on each coastline	High environmental effectiveness. The establishment of Fishing Conservation Areas (FCAs) allows for better protection of spawning grounds, nurseries and migration routes used by diadromous and reef species. These zones are essential in the life cycle of many species.	Approximately €221,000/coastline of which: - Operation: 2.17 Full Time Equivalent of agent time for monitoring mapping studies and assisting stakeholders in reducing the impact of authorised activities and developments at sea in ZFHi areas; - Study: €40,000 for mapping ZFHi areas at a relevant level and €50,000 for a study to identify pressures and their effects on ZFHi areas.	The impact of this action will depend on the precise location of the Fishing Conservation Areas. At present, the boundaries defined by the scientists are too broad to have a clear vision of the sectors that will be affected. The impacts on activities may be more or less significant depending on the approach taken in terms of regulation and the extent of zoning. For example, in the case of aggregate extraction, this may result in a ban on operating in certain areas. In addition, the difficulty of anticipating the lack of a clear location of these areas makes it difficult to explore future extraction sites. Another example, for professional fishing, although in the long term this action is beneficial to fish stocks, in the short and medium term if it results in an outright ban on extraction that could have an impact. Finally, it is the absence of a mode of governance for these future zones that is currently raising the most concern among the various operators.
D02-AN1	x	x	x	x		Improve the management of non-indigenous marine species	Moderate environmental effectiveness. The level of knowledge about indigenous marine species is rather low. The effectiveness of the action will depend on the awareness of managers of marine protected areas to identify and manage indigenous species through regulatory measures.	Approximately €490,000/coastline of which: - Operation: 5.68 Full Time Equivalent of agent time for monitoring studies on priority species, support in the development of national management strategies for regulated non-indigenous marine species, communication and organisation of knowledge sharing and acquisition networks; - Investment: €90,000 to develop national management strategies for regulated non-indigenous marine species (3 or €30,000 per national management strategy) - Study: €30,000 for the study on priority species; - Communication: €30,000 for the production of communication materials.	Three types of impact can be identified in relation to this action: — a positive impact on the shipbuilding industry, which could eventually benefit from the process research underway for eco-construction of ships; — no impact on the sailing sector which is not affected at this stage; — a significant impact, however, in terms of costs for maritime transport, which must implement technical solutions to avoid the transport of these species in ballast water or on hulls, or for the Large Marine Ports, which must offer carriers services to collect and treat ballast water, involving very significant costs.

D03-OE02-AN1	x	x	x	x	Identify priority stocks of local importance that are not under Community management for which management could be established or improved, depending on their conservation status and socio-economic importance, and draw up the corresponding management plans	Potentially high environmental effectiveness. Management plans would allow, at local level, to contribute to the protection of species identified as priority. In addition, taking into account the biological rest of stocks (cessation of fishing during the reproduction period) would contribute to a good renewal of stocks and the maintenance of a maximum sustainable yield (MSY) under the Common Fisheries Policy (PCP). However, the effectiveness of the action may be weakened by the fact that the sub-actions are dependent on each other (first of all, identification of stocks, then studies on these stocks and finally the implementation of management plans).	Approximately €36,000/coastline of which: - Operation: 0.5 Full Time Equivalent of agent time to draw up a list of stocks managed locally by fishing professionals, to support and monitor the study; - Study: €6,250/coastline for a study to gain a better understanding of the issue of preservation of local stocks identified as sensitive.	This action considers management plans that could lead to temporary limitations on fishing activities to combat the depletion of local stocks. To this end, more exhaustive knowledge of stocks is expected by the fishermen themselves and, in the long term, the activity should benefit from better preserved and available stocks.
D03-OE02-AN2				x	Consider extending the control powers of agents operating in the network of marine protected areas under the transport codes and Rural and Maritime Fishing codes	Moderate environmental effectiveness. At first glance, the action has no direct environmental impacts, but it could contribute to the improvement of environmental or resource status and monitoring.	Estimated cost of €6,000/coastline: 0.1 Full Time Equivalent of agent time per coastline for a technical and legal study	This action has no socio-economic impacts on the sea and coastal sectors.
D03-OE03-AN1	x	x	x	x	Harmonise and strengthen the regulations on recreational fishing and raise awareness among fisherman of their implementation	High environmental effectiveness. Effectiveness will depend on compliance with regulations (the action would help limit the impact of fishermen on the resource).	Approximately €45,000/coastline of which: Operation: 0.25 Full Time Equivalent of agent time for study monitoring; Study: €30,000/coastline for a comparative study.	Knowledge-sharing action whose socio-economic impact cannot be estimated at this time.
D04-AN1	x	x	x	x	Contribute to a better management of the harvesting of forage species at European level.	Moderate environmental effectiveness. At first glance, the action has no direct environmental impacts, but the recommendations expressed to the European Commission could lead to strong regulatory measures on the extraction of forage species at European level.	Estimated cost of €4,000/coastline: 0.05 Full Time Equivalent of agent time to make recommendations from the French State to the European Commission	This action could lead to a reduction in the quota of forage species. The impact here would be significant for the affected fisheries, particularly when they are specialised in these species.
D05-OE01_AF1		x			Reduce excessive nutrient inputs and their transfer to the marine environment	High ecological effectiveness This action would reduce excessive nutrient inputs into the marine environment and therefore preserve the quality of ecosystems and biodiversity.	Estimated cost €15,000/coastline: 0.25 Full Time Equivalent of agent time for monitoring to be taken care of.	These actions are not aimed at maritime activities, but these will ultimately benefit from the improvement in the quality of the resource and the environment. The socio-economic impacts mainly concern coastal agricultural activities, which will have to adapt their practices to limit their nitrogen and phosphorus inputs. Many support schemes exist to assist farmers in this transformation.
D06-OE01-AN1	x	x	x	x	Develop a strategic coastline vision towards "zero net artificialization"	Potentially high environmental effectiveness. The brake on artificialization makes it possible to conserve certain habitats of interest, but the effectiveness of the action may be weakened by the fact that the sub-actions are dependent on each other (firstly, the identification of projects and then support towards the "zero net artificialization" objective).	Estimated cost of €33,000/coastline: 0.55 Full Time Equivalent of agent time for sharing theories and exchanging good practices implemented by the investigating authorities on the application of the ARC sequence and for defining and experimenting with protection and restoration methods in order to gain an ecological advantage.	This action could limit the development of several activities. However, this will depend on its operational implementation. For example, for ports in general (Large Marine Ports, sailing and fishing) the impact could be more or less significant. The development strategy of the vast majority of ports is indeed rather to rebuild the port on the port, with a few rare exceptions. Nevertheless, a certain number of them will have to be developed to accommodate MRE activity. Fish and shellfish farming need land-based facilities that could be impacted, even if some of them are concentrated in areas that are already artificialized and, furthermore, almost all the sites suitable for shellfish farming are already exploited. For marine fish farming, which is very little developed in France, this action could have an impact on the development potential, which is currently subject to competition with other activities in ports. Finally, tourism stakeholders have some doubt as to the real meaning of this principle if it is applied in a consistent manner to the entire coastline, without taking into account local situations. However, in the absence of new shipyard projects, this activity should not be impacted in the medium term.

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D06-OE01-AN2	x	x	x	x	Support the implementation of the ARC sequence at sea in the context of authorising projects leading to artificialization of the marine environment	Uncertain environmental effectiveness. At first glance, the action has no direct environmental impact, but identifying sites with high ecological potential is essential for the implementation of the ARC sequence.	Estimated cost of €33,000/coastline: 0.55 Full Time Equivalent of agent time for sharing theories and exchanging good practices implemented by the investigating authorities on the application of the ARC sequence and for defining and experimenting with protection and restoration methods in order to gain an ecological advantage.	These actions aim to improve and disseminate knowledge on good practice in the application of the ARC sequence. They do not as such have socio-economic impacts on offshore activities but will provide a framework for the application of the regulations to offshore projects.
D06-OE02-AN1				x	Improve the management of Posidonia banks on beaches by bringing together social acceptability with the issues of managing erosion and the protected species.	Potentially high environmental effectiveness. Effectiveness depends on the people using the beaches complying with the rules	Approximately €562,000/coastline of which: - Operation: 1.7 Full Time Equivalent of agent time for awareness-raising support and training for local authorities and managers; - Study: €200,000 for the development and organisation of a commitment charter for the preservation of Posidonia banks; - Communication and awareness raising: €260,000 for the production of communication materials and for 3 public awareness campaigns.	The implementation of this action could have an impact in terms of operation for the local authorities in charge of the beaches, meaning they are trained in techniques to manage Posidonia banks better and in awareness-raising actions for tourists and those taking part in seaside activities.
D06-OE02-AN2				x	Continue the territorial implementation of the strategy for the ecological restoration of natural habitats in the Mediterranean	Moderate environmental effectiveness. The effectiveness of the action may be weakened by the fact that the sub-actions are dependent on each other (need to initiate studies, establish a plan and then carry out restoration work).	Approximately €569,000/coastline of which: - Operation: 0.3 Full Time Equivalent of agent time to support the development of Territorial Ecological Restoration Schemes (STERE) and study monitoring; - Study: €550,000 for an environmental and socio-economic evaluation study of restoration operations at relevant territory level.	This action is expected to have little impact on the operation of certain sailing, water sports or fishing activities. It could, if necessary, lead to restrictions in certain areas, but consists rather in highlighting and optimising the existing regulations. It could even, with fishing for example, reopen sectors from which fishermen had been excluded by other activities, such as yachting.
D07-OE03-AN1	x	x	x	x	Promote land-sea connectivity in estuaries and lagoons, linking what is being done on ecological continuity under the SDAGE and PLAGEPOMI, by intervening on obstacles impacting currentology and sedimentology	Potentially high environmental effectiveness. The removal of obstacles would improve land-sea connectivity in estuaries and lagoons, but the effectiveness of the action may be weakened by the fact that the sub-actions are dependent on each other (first of all, a census of obstacles, then presentation of the diagnosis to the local authorities and finally the choice of obstacle removal).	Approximately €598,500/coastline of which: - Operation: 0.15 Full Time Equivalent of agent time to support local authorities in identifying and removing or adapting barriers; - Investment: €500,000/coastline for establishing management measures at 3 sites; - Study: €90,000/coastline for censuses of flow obstacles and identification of sites for re-estuarisation.	The issue of land-sea connectivity in estuaries and lagoons could potentially impact on the upkeep of depths in shipping channels, and therefore lead to significant cost implications for ports.
D07-OE04-AN1	x	x	x	x	Define the methods for better consideration of the needs of freshwater inputs to marine environments in regulations	Potentially high environmental effectiveness. Salinity is an important parameter in achieving good status of coastal and marine ecosystems. It is therefore important to better consider the need for freshwater supplies to marine environments in the regulations.	Approximately €713,500/coastline of which: - Operation: 0.72 Full Time Equivalent of agent time for monitoring prospective studies over a long period of time and support in establishing management measures; - Study: €670,000 for prospective studies, for establishing management measures and for establishing management measures for 3 sites.	These actions are aimed at improving knowledge before they can be translated into recommendations that will affect the catchment areas. No socio-economic impacts on sea and coastal activities are expected.
D08-OE03-AN1	x	x	x	x	Make it compulsory to digitally report chemical discharges from chemical tankers at sea	Moderate environmental effectiveness. At first glance, the action has no direct environmental impacts, but the recommendations expressed to the European Commission could lead to strong regulatory measures regarding digitally reporting authorised discharges at sea by chemical tankers.	Estimated cost of €6,000/coastline: 0.1 Full Time Equivalent of agent time per coastline to support the implementation of a regulation	It is difficult to measure the impact of this action at this stage. However, it could lead to investment and operational costs for chemical tankers, which will have to make digital declarations of their discharges at sea, already subject to conditions.

D08-OE04-AN1	x	x	x	x	Identify and equip the careening areas of marinas, anchoring areas and shipyards with effluent treatment systems. Make managers and users aware of good careening practices.	Potentially high environmental effectiveness. Effectiveness depends on measures to raise awareness among managers and users of good careening practices.	Approximately €327,000/coastline of which: - Operation: 1.41 Full Time Equivalent of agent time for the census and updating of the database, to support the installation of effluent treatment systems in careening areas - Investment: €120,000/coastline for the installation of effluent treatment systems in careening areas and/or their pooling of resources; - Awareness raising and communication: €122,000/coastline for financing awareness-raising actions or communication tools and for publishing a guide.	The impact of this action should be moderate for marinas, which are mostly already equipped, and are even increasingly so in the framework of the Clean Ports initiative. The question arises more for small ports and anchoring areas, especially for equipment and slipways, where pooling of resources with marinas should be considered. Aid from water agencies is possible. Finally, marinas are already involved in initiatives for raising awareness of good practices among sailors.
D08-OE05-AN1	x	x	x	x	Limit/prohibit discharges from open-loop scrubbers into specific areas	High environmental effectiveness. This action could contribute to the reduction of pollution risks in specific areas such as ports, enclosed bays, environmentally sensitive areas.	Approximately €51,000/coastline of which: - Operation: 0.82 Full Time Equivalent of agent time for the implementation of a regulation; - Investment: €1,500 for expert consultation.	The impact of this action on ports is considered rather low as open-loop scrubber discharges are already prohibited in most large marine ports, as this prohibition is included in their specific policy regulations. The issue is more in terms of competitiveness between ports, with regard to the implementation of this obligation on a European scale. The need now is to develop services for the recovery and treatment of waste from closed-loop scrubbers, an initiative which some ports have already committed to. On the other hand, for maritime transport, the economic impact of a general ban on open-loop scrubbers at national level could be significant, with higher fuel costs.
D08-OE06-AN1	x	x	x	x	Encourage and support the implementation of shared dredging and promote the sustainable creation of a sediment recycling industry adapted to the territories	Potentially high environmental effectiveness. The action could contribute to the reduction of the environmental impact of dredging and piling activities.	Approximately €521,000/coastline of which: - Operation: 0.35 Full Time Equivalent of agent time to support the implementation of territorial plans; - Investment: €500,000/coastline for the implementation of 5 territorial plans.	The impact of this action relates mainly to the reuse of dredged material. It could be low to high for ports depending on the thresholds that will finally be adopted in the framework of the implementation of Article 85 of the Blue Economy Law. This could have significant consequences in terms of sediment treatment, insofar as, even if onshore reuse channels are being developed, the cost remains high to date. It also seems necessary to work on the dumping procedure, in addition to non-dumped sediments. The question of the involvement of other stakeholders (local authorities, construction and public works industry, etc.) is also raised.
D08-OE06-AN2	x	x	x		Study, assess and reduce the sources of endocrine disruptors displaced at sea by the dumping of dredged sediments	Moderate environmental effectiveness. The action aims to reduce the impact of endocrine disruptors through improving knowledge of the risks associated with them and implementing appropriate management measures.	Approximately €51,000/coastline of which: - Operation: 0.35 Full Time Equivalent for support by investigating authorities; - Study: €30,000 to characterise dredged sediments and assess the risk associated with their dumping.	It is difficult to measure the impact of this action at this stage. Initially, improving knowledge of the presence of endocrine disruptors in dredged sediments and the associated risks is part of the work already underway in the context of the implementation of Article 85 of the Blue Economy Law, and should therefore not generate significant additional costs. On the other hand, the management measures that could be taken depending on the identified risks could have repercussions for the ports in particular.
D08-OE08-AN2				x	Reduce atmospheric inputs of contaminants linked to maritime transport, in particular by supporting local decarbonisation strategies (LNG, NGV, hydrogen, sail)	Moderate environmental effectiveness. There is a lack of knowledge about atmospheric inputs. The feasibility of the action depends on the ability to finance the action.	Estimated cost of €30,000/coastline: 0.5 Full Time Equivalent of agent time to support the implementation of the "Zero Fumes from Stopovers" Plan and the setting up of a SECA zone in the Mediterranean.	This action is part of a dynamic already underway for the large marine ports in the framework of the National Port Strategy. Several large ports, including Marseille, are already involved in setting up new energy sources. However, this action is also intended to be extended to commercial ports or ports with large yachts. Therefore, the impact in terms of investments may not be neutral, even if they will be supported by public aid.
D09-OE01-AN1		x			Raising awareness among sailors on the issue of managing discharges from offshore recreational vessels	Moderate environmental effectiveness. Effectiveness will depend on the effective implementation by sailors of good practice in managing water from their vessels.	Estimated cost of €15,000/coastline: 0.25 Full Time Equivalent of agent time per coastline to produce the guides	This awareness-raising action for sailors should not have a strong impact on the marinas that will have to carry it out, as they are already involved in raising awareness of good practices among sailors. Furthermore, from the point of view of boat hire companies, trials carried out in Port Cros in conjunction with the federation of nautical industries have shown that sailing boat hire companies have increased their turnover by promoting responsible behaviour

D10-OE01-AN1	x	x	x	x	Prevent the discharge of waste upstream of sewage and rainwater networks	High environmental effectiveness. This action would reduce the risk of maritime pollution and therefore preserve the quality of ecosystems and biodiversity by reducing waste upstream of waterways and wastewater and rainwater treatment systems.	Estimated cost of €9,000/coastline: 0.15 Full Time Equivalent of agent time for the implementation of a regulatory framework to prevent leakage of industrial plastic granules into the environment.	These actions do not directly target a particular economic activity of the sea or coastline. They seek to promote ethical approaches to waste management among industrialists and economic activities in catchment areas. Therefore, eco-design, recycling, loss reduction and product life extension approaches to reduce litter are expected, in keeping with the law of 10 February 2020 on the fight against waste and the secondary economy. Based on the polluter pays principle, this action is expected to result in additional costs that could be quite significant for the manufacturers and importers of the affected activities.
D10-OE01-AN2	x	x	x	x	Combating waste in sewage and stormwater systems	High environmental effectiveness. The action could contribute to the reduction of waste in sewage and rainwater networks.	Approximately €812,000/coastline of which: - Operation: 0.52 Full Time Equivalent of agent time to support trials in waste control; - Investment: €480,000 for 12 trials on systems to combat waste in the networks, €300,000 for the implementation of corrective actions to prevent leaks in water treatment plants and financing research actions.	These actions do not directly target a particular economic activity but the performance of the sewerage and rainwater networks. The socio-economic impacts therefore apply to public investments that will ultimately benefit sea and coastal activities by improving the quality of the resource and the environment.
D10-OE01-AN3	x	x	x	x	Identify priority landfills and waste accumulation areas and the different funding options to reduce them	Uncertain environmental effectiveness. At first glance, the action has no environmental impacts, but the action is essential in the process of waste reduction.	Approximately €55,000/coastline of which: - Operation: 0.25 Full Time Equivalent of agent time for monitoring the inventory and mapping of historical landfills; - Study: €40,000 for the mapping of historical landfills and a study of the cost of reducing waste accumulation areas in waterways and on the coast.	These actions to reduce waste accumulation black spots have no direct socio-economic impacts on sea and coastal activities. These public investments will ultimately have positive effects on activities that depend on a quality environment (tourism, seaside activities, fishing, aquaculture, etc.).
D10-OE01-AN4	x	x	x	x	Raise awareness, inform and educate on ocean pollution by waste	Moderate environmental effectiveness. Effectiveness will depend on whether users take raising awareness into account.	Approximately €1,415,000/coastline of which: - Operation: 1.75 Full Time Equivalent of agent time for actions relating to awareness-raising, deployment and circulating the "plastic-free beach" charter; - Investment: €1,250,000/coastline to support awareness-raising associations and €60,000/coastline to deploy the "zero litter" participatory science platform.	These actions to reduce marine waste are not directly targeted at any particular economic activity. The socio-economic impacts concern public funding for associations and civil society, which will ultimately benefit sea and coastal activities by improving the quality of the resource and the environment.
D10-OE01-AN5	x	x	x	x	Encourage the reduction, collection and reuse of waste from maritime activities and support activities towards sustainable equipment	High environmental effectiveness. This action would contribute to the reduction of maritime pollution risks, but the effectiveness of the action may be weakened by the fact that the sub-actions are dependent on each other (firstly, the search for waste reduction and recycling solutions, and then, the integration of these solutions into the structures' plans).	Approximately €139,000/coastline of which: - Operation: 0.65 Full Time Equivalent of agent time for support by the investigating authorities; - Investment/Study: €100,000 in financial aid to professionals (fish farmers, fishermen, fishmongers, auction houses, fish markets) for recycling and sustainable solutions.	The impact of this action can be seen in: - higher material costs (marker to geolocate nets, recyclable nets/pots, etc.) - work time and modified organisation: recovery of lost nets, storage on the boat of broken materials to be brought back, etc. The waste deposits generated by professional fishing and marine aquaculture activities is estimated at around 4606 t/year. Many initiatives exist today to treat this waste, but at a local level (oyster shell recycling scheme, etc.). In general, the economic effectiveness of this action does not depend solely on the targeted activities (aquaculture and professional fishing in particular). Setting up recycling schemes and organising waste collection in the ports will be decisive.
D10-OE01-AN6				x	Encourage the reduction, collection and reuse of land-based waste impacting the coast and the sea	Potentially high environmental effectiveness. This action could contribute to the reduction of maritime pollution risks through waste collection, but the effectiveness of the action may be weakened by the fact that the sub-actions are dependent on each other (waste reduction operations may be established following the results of sub-action 2).	Approximately €400,000/coastline of which: - Operation: 1.5 Full Time Equivalent for managing the monitoring centre, monitoring the number of people visiting the foreshore and the places frequented and communicating the results of the studies and advising on minimising the impact of anthropogenic activity on the foreshore; - Study: €250,000 for studies to reduce the input of waste from road areas and the implementation of a procedure for the collection and elimination or reuse of waste and €20,000 for a study to identify the areas that are the main sources of discharge into waterways.	This action could impact operating and organisational costs for certain tourism operators who, in return, could benefit over time from a quality tourism image by taking part in such a waste reduction and management approach. Road and waterway infrastructure managers are also affected by this action, with also an impact in terms of operating costs, to reduce the amount of waste associated with their infrastructures.

D10-OE02-AN1	x	x	x	x	Improve waste management in ports and facilitate the collection of waste when it is caught accidentally.	High environmental effectiveness. This action could contribute to the reduction of maritime pollution risks through waste collection.	Approximately €293,000/coastline of which: - Operation: 1.55 Full Time Equivalent of agent time for the implementation of the Port Reception Facilities Directive, drafting and dissemination of a best practice guide; - Investment: €200,000/coastline for support to associations.	The collection of waste caught accidentally during fishing operations leads to work constraints (sorting) and space constraints on the boats (storage). Furthermore, to be effective, it requires that the collection of waste in ports is very well organised and is made easier for fishermen by port operators. In this respect, it seems that several fishing ports have organised themselves in this way, as well as certain shellfish farming structures that are trying to find solutions for removing oyster beds. State aid is provided to assist with any potential equipment. Good net mending practices may require some small investments in appropriate equipment but are more a matter of changing practices through awareness raising.
D10-OE02-AN2	x	x	x	x	Continue the deployment of the European Clean Harbours and Clean Harbours Active in Biodiversity certification	Potentially high environmental effectiveness. The action could contribute to the reduction of waste through the European Clean Harbours and Clean Harbours Active in Biodiversity certification	Approximately €366,000/coastline of which: - Operation: 3.1 Full Time Equivalent of agent time to support and strengthen the network of Clean Harbours and Clean Harbours Active in Biodiversity; - Investment/communication: €180,000 for the implementation of the ECOPORT label and communication actions.	The impact of this action is experienced positively by the marina unions, which consider these approaches as an asset for their activity, both in terms of image with the users and in terms of team dynamics and cohesion and anchoring in the territory. The investments required for diagnostics and certain equipment also benefit from various subsidy schemes.
D11-OE1-AN1	x	x	x	x	Collect and disseminate data on impulsive noise from industrial operations	Moderate ecological effectiveness. The level of knowledge about the impacts of impulsive noise is still low. The effectiveness of the action may be weakened by the fact that the sub-actions are dependent on each other (first of all, the collection of data and then its storage and dissemination).	Approximately €58,000/coastline of which: - Operation: 0.12 Full Time Equivalent of agent time for verification of the application of the articles of law and dissemination of data; - Investment: €50,000/coastline for SHOM funding for storage.	For the affected activities, this action may lead to additional labour and material costs, which will probably remain marginal in relation to the affected sites (MRE, aggregate extraction, etc.).