



## **PRÉSERVER LES AIRES MARINES PROTÉGÉS AU REGARDS DE LA CROISSANCE BLEUE EN MÉDITERRANÉE**

### **RECOMMANDATIONS**

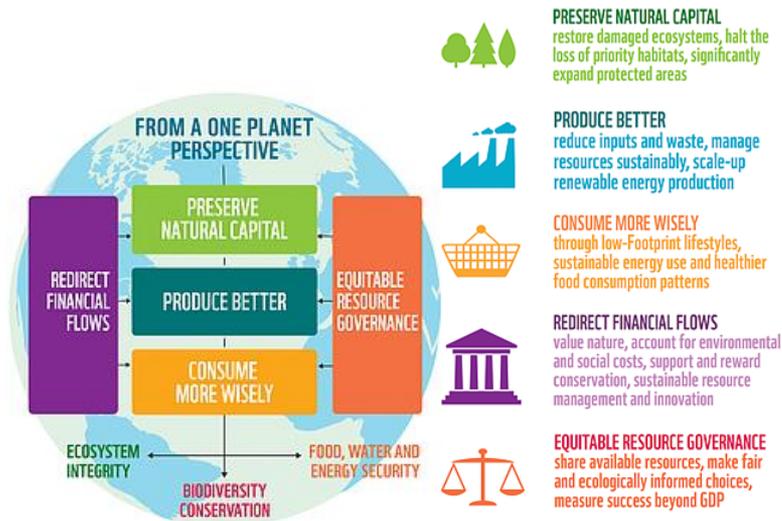
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28 Novembre 2019



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# L'approche du WWF



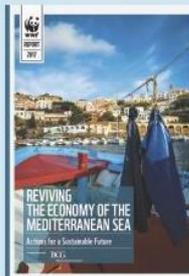
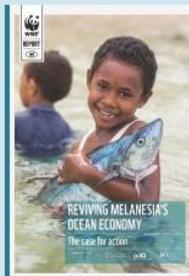
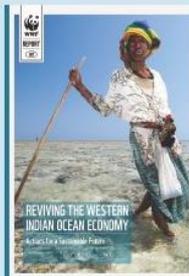
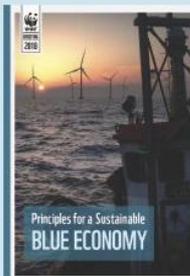
# One Planet Solution



# SUSTAINABLE BLUE ECONOMY: FROM PRINCIPLES TO ACTION

The sustainable economic development of the ocean is only possible if it contributes to long-term prosperity and resilience. This is why WWF and partners have developed principles to guide the development of the blue economy along the most sustainable pathways.

To find out more about these and other documents that provide useful guidance for public and private sector actors to help steer blue economy activities, investments and policies in the right direction, please visit: [ocean.panda.org/SBereports](http://ocean.panda.org/SBereports)





# Les principes d'une Economie Bleue Durable



PHOTO: EUROPEAN COMMISSION, WFP/ICL

## INTRODUCING THE SUSTAINABLE BLUE ECONOMY FINANCE PRINCIPLES

The true potential of the 'Blue Economy' – defined as all the economic sectors which have a direct or indirect link to the ocean – can only be realised if our ocean's health is secured. We need to restore, protect and sustainably manage ocean assets in order to realise the ocean's potential to support human development well into the future.

Investors and policy-makers are increasingly turning to the ocean for new opportunities and resources. According to OECD projections<sup>1</sup>, by 2030 the Blue Economy could outperform the growth of the global economy as a whole, both in terms of value added and employment.

However, there is increasing evidence that losses in the ocean's natural capital resulting from unsustainable economic activity are eroding the resource base on which such growth depends.

Ocean stresses are well documented: biodiversity is rapidly declining, habitats are being degraded, acidity is increasing, plastic and other wastes are accumulating, and the temperature is rising. Our ocean is showing signs that it is under extreme

stress just at the moment when we need it more than ever. The full value of the ocean's natural capital depends entirely on our ability to protect, maintain and restore this invaluable shared asset base.

Today, the international community is increasingly engaged and mobilising action towards achieving a sustainable future for the ocean – and the vital role of the finance and investment community cannot be overstated. To facilitate this, we urgently need a framework for ocean-related investment and development policy along the most sustainable pathways possible. And that's why we're launching these Sustainable Blue Economy Finance Principles.



### \$2.5 TRILLION

THE OCEAN IS VALUED AT MORE THAN USD 24 TRILLION. THE ANNUAL ECONOMIC VALUE GENERATED BY THE OCEAN IS AT LEAST USD 2.5 TRILLION MAKING IT THE WORLD'S SEVENTH LARGEST ECONOMY.

(WWF, 2015)

# Les principes d'une Finance Bleue Durable

## Privilégier l'approche ERC

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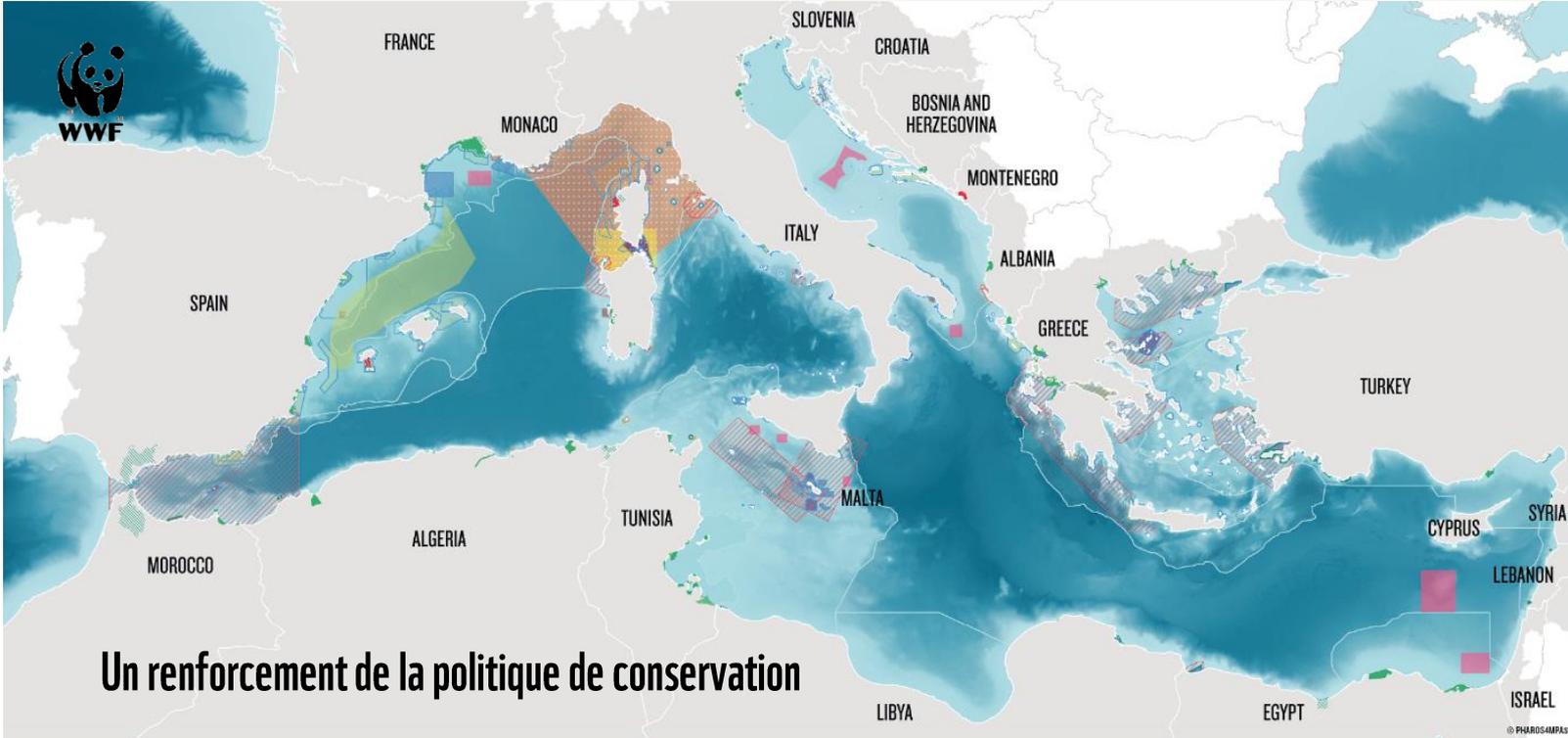
Vers une démarche itérative « E, r, ( c ) » comme grand principe :

- E comme éviter en priorité les incidences,
- r comme réduire ensuite celles qu'on n'a pu éviter,
- (c), comme compenser les incidences résiduelles quand elles peuvent l'être.



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# A propos du projet PHAROS4MPAs



## Un renforcement de la politique de conservation

0 250 500 750km

SOURCE: MA/PAM/ED, MedPAN & UNEP-MAP-SPA/RAC (2017)

10% d'AMPs  30%

### CONSERVATION AREAS

-  National MPA
-  Marine Natura 2000 site
-  Pelagos Sanctuary for marine Mammals
-  Mediterranean Cetacean Migration Corridor
-  SPAMI
-  International Marine Park of the Bonifacio Strait
-  Fisheries Restricted Area (FRA)
-  World Heritage Site
-  UNESCO Biosphere Reserve
-  RAMSAR site

### AREAS OF CONSERVATION INTEREST

-  PSSA
-  EBSA
-  CCH

## Projet en bref

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PHAROS4MPAs a pour objectif d'identifier les conditions d'un développement durable de **7 secteurs** dans et aux alentours des Aires Marines Protégées de la Méditerranée

Gestionnaires d'AMPs

Institutions nationales

Entreprises

# Approche transnationale

**PHAROS4MPAs est basé sur une approche intégrée entre pays de la méditerranée et prend en compte les difficultés de la coordination entre pays**

A travers un ensemble de partenariats construit autour de 17 collaborateurs de 10 pays (France, Espagne, Italie, Grèce, Albanie, Sloveie, Croatie, Belgique, Tunisie, Malte)



# Des recommandations



**7 SECTORS  
7 RECOMMENDATIONS  
7 POLICY BRIEFS**

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# Les recommandations en matière d'E, r, (c) adaptées aux secteurs maritimes

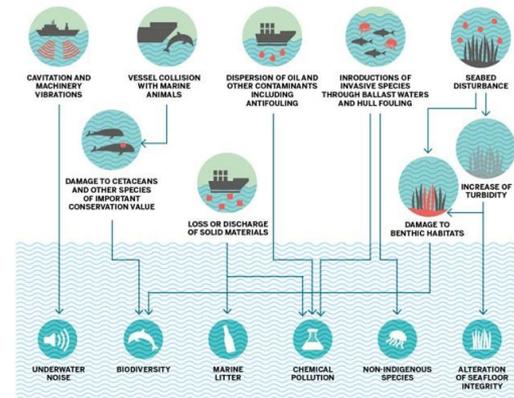
# Les impacts environnementaux

## Aquaculture

Environmental Pressures/Category

ECOLOGICAL CLASSIFICATION (type and intensity of production)	Open systems			Semi-open systems				Closed Systems
	Intensive	Semi-intensive	Solar	Intensive	Semi intensive	Extensive	Intensive	
Traditional classification	Mollusc long lines	Mollusc bottom	Ranching	Fish (net pens)	Fish (tanks)	Fish (ponds)	Fish (vall, lagoons)	Fish (RAS)*
Sedimentation	Organic load							
	Turbidity							
Change in geochemical processes	Disolved O <sub>2</sub>							
	Nutrients							
Spread of alien species								
Interaction with wild species								
Use of chemical products								
Collection of wild forms								
Control of predators								
Disease spread								
Use of fishery resources in feeds (fish meal/oil)								

## Transport Maritime



PRESSURE	IMPACT	TAXONOMIC GROUP/HABITAT	INTENSITY
Overexploitation of vulnerable species	Insufficient population recovery	Different vulnerable species, e.g. groupers	High
Additive predation	Perturbation of trophic chain	Sea urchin in coastal habitats	Low
Physical contact from boat anchors and trampling on sensitive habitats	Habitat degradation	Cystoseira and coralligenous assemblages as well as Posidonia meadows	High
Catch-and-release	Increased mortality	All fish	Medium
Exotic species	Ecosystem disturbance	All types of coastal habitats	Medium
Fishing gear lost or abandoned at sea	Pollution/Ghost fishing	All type of marine habitats	High

## Eolien OffShore

## Pêche Récréative

# Retour d'expérience de la démarche E,r,(c)

## Séquence Eviter: Exemple du secteur de l'éolien

	Pressure	Impact	Siting phase	Construction	Operations	Decommissioning	Mitigation
Mammifères	Cable-laying	Habitat-loss	-	medium/high	low	low/unknown	Selection of most appropriate route for cable-laying
	Cable-laying	Habitat-loss	-	medium/high	low	low/unknown	Shortest possible length for laying cables / Bundling with existing cables / Minimize number of cable-crossing structures
	Cable-laying	Habitat-loss	-	medium/high	low	low/unknown	Allocation of just the minimum areas necessary for construction activities
Oiseaux	Cable-laying	Physical-damage, disturbances	-	medium/high	low	unknown	Prefer methods minimizing turbidity and sediment-suspension (jetting / ploughing / horizontal drilling, seabed laying, rock dumping with on-site material, front-matresses)
	Foundations-occupation	Habitat-loss	-	medium/high	low	-	Appropriate site selection through marine-spatial-planning
	Foundations-occupation	Habitat-loss	-	medium/high	low	-	Selection of suitable locations through detailed delineation habitat / sensitive-species-distribution
Invertébrés	Foundations-occupation	Physical-damage, disturbances	-	medium/high	low	-	Allocation of just the minimum areas necessary for construction activities
	Submerged-structures	Reef effects	-	-	unknown	unknown	Monitoring
	Underwater-operating-cables	Electromagnetic fields	-	-	unknown	-	Cable-burying in appropriate sites / shielding
Mammifères	Piling-noise	Physical-damage, disturbances	-	high	-	-	Noise-mitigation techniques (modification of piling-hydraulic hammer, bubble curtain types, soft-start, casings, cofferdams)
	Submerged-structures	Reef effects	-	-	unknown	unknown	Monitoring
	Foundations-occupation	Habitat-loss	-	medium/high	low	-	Appropriate site selection through marine-spatial-planning
Oiseaux	Foundations-occupation	Habitat-loss	-	medium/high	low	-	Allocation of just the minimum areas necessary

	Pressure	Impact	Siting phase	Construction	Operations	Decommissioning	Mitigation
Mammifères	Piling-noise	Physical-damage, disturbances	-	high	-	-	Noise-mitigation techniques (modification of piling-hydraulic hammer, bubble curtain types, HSD, soft start, casings, cofferdams) / Threshold-values / Deterrence-devices / Low-noise-foundation-installation
	Ship-traffic	Collision	unknown	unknown	unknown	unknown	Speed-regulation
	Ship-traffic-noise	Displacement	low/medium	medium/high	medium/high	medium/high	Routing regulations
Oiseaux	Ship-traffic-presence	Displacement	unknown	unknown	unknown	unknown	Routing regulations
	Ship-traffic	Displacement	low/medium	low/medium	high	depending on species	Routing regulations
	Lights	Collision	low	low/medium	high	depending on species	Avoid lighting / Lighting on demand with radars / Use of deflector
Invertébrés	Operating-wind-turbines	Collision	-	-	-	-	Temporary shut-down / curtailment
	Operating-wind-turbines	Collision	-	-	-	-	Appropriate site selection through marine-spatial planning (also development of sensitivity maps)
	Operating-wind-turbines	Collision	-	-	-	-	Increase turbine-visibility / Use of deterrents
Mammifères	Operating-wind-turbines	Barrier effects	-	-	-	-	Appropriate site selection through marine-spatial planning
	Operating-wind-turbines	Collision	-	-	unknown	-	Monitoring
	Ship-traffic	Collision	low/medium	medium/high	low/medium	low/medium	Speed-regulation
Oiseaux	Ship-traffic	Collision	low/medium	medium/high	low/medium	low/medium	Routing regulations
	Piling-noise	Physical-damage, disturbances	-	high	-	-	Noise-mitigation techniques (modification of piling-hydraulic hammer, bubble curtain types, soft-start, casings, cofferdams)
	Lights	Disorientation	unknown	unknown	unknown	unknown	Avoid lighting / Lighting on demand with radars / Use of deflector
Invertébrés	Underwater-operating-cables	Disorientation due to	-	-	unknown	-	Cable-burying in appropriate sites / shielding

2/3 des mesures = séquence d'évitement

# Retour d'expérience de la démarche E,r,(c)

## Séquence Réduire: Exemple du secteur de l'aquaculture

STRATEGY		
Responsible aquaculture in the MPA		
GOALS	RESULTS ASSOCIATED	INDICATOR
Management plan includes a responsible aquaculture strategy and 100% of environmental quality indicators have a baseline	Environmental and social diagnosis of the current aquaculture operation	Percentage of environmental quality indicators with a baseline
Within two years of the strategy's approval, the farm has begun the process of implementing impact reduction	Voluntary agreements formally adopted by company	Number of farms with impact mitigation tools in place
Within three years of the strategy's approval 50% of impact mitigation measures are implemented	Environmental mitigation measures in place	Percentage of mitigation measures implemented

TABLE 9. Example of a strategy to achieve sustainable aquaculture in an MPA (WWF, 2019)

# Retour d'expérience de la démarche E,r,(c)

## Séquence Réduire:

**Du plus simple, réduire  
l'utilisation de métaux lourds  
(lestes et anodes)**



**Au plus complexe, réduire les  
effluents organiques (déjections,  
aliments, mortalité)**



### Reviews in Fisheries Science

Publication details, including instructions for authors and subscription information:  
<http://www.tandonline.com/loi/bfss20>

### Sea Cucumber in the Mediterranean: A Potential Species for Aquaculture in the Mediterranean

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Medicine of Torino, Grugliasco, TO, Italy

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Available online: 11 Aug 2011



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# Merci pour votre attention

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## Le rapport MedTrends

**MEDITERRANEE:  
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