



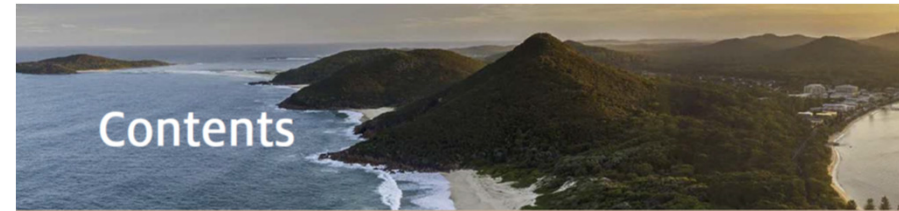
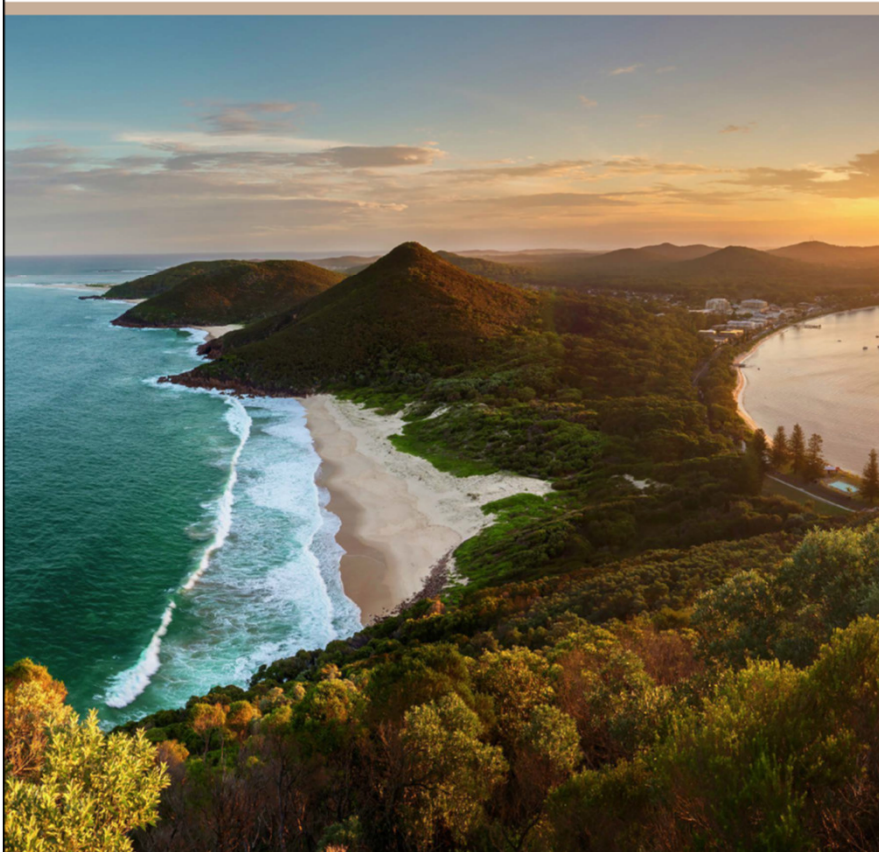
European
Environment
Agency

ورشة عمل تحديد المؤشرات ذات الأولوية لتقييم حالة البيئة البحرية بدولة ليبيا
الإسكندرية، ١١-١٢ سبتمبر ٢٠١٨



State of The Marine Environment

Coasts



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INSTITUTE OF
MARINE AFFAIRS

State of the Marine Environment

Trinidad & Tobago - 2016



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State of the Marine Environment Report

2013

ROPME



Regional Organization for the Protection of the Marine Environment - Kuwait

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STATE OF THE MARINE ENVIRONMENT

REPORT FOR THE RED SEA AND GULF OF ADEN: 2006

Regional Organization for the Conservation of the Environment of the Red Sea and Gulf of Aden

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Priority issues in the Mediterranean environment



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STATE OF THE ENVIRONMENT AND DEVELOPMENT
IN THE MEDITERRANEAN - 2009




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Under the coordination of
UNEP/MAP's Regional Activity Centre





MEDITERRANEAN ACTION PLAN
UNITED NATIONS ENVIRONMENT PROGRAMME

The State of the Marine and Coastal Environment in the Mediterranean Region

MAP Technical Reports Series No. 100

UNEP – Athens, 1996

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European Environment Agency



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STATE OF THE MEDITERRANEAN MARINE AND COASTAL ENVIRONMENT



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حالة البيئة البحرية والساحلية للبحر الأبيض المتوسط



2012

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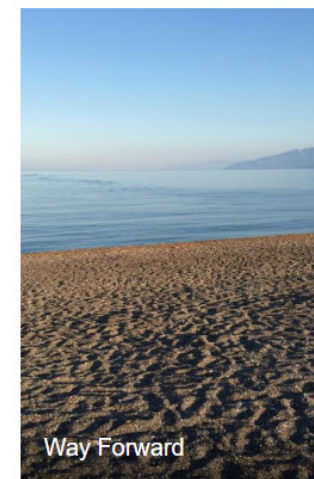
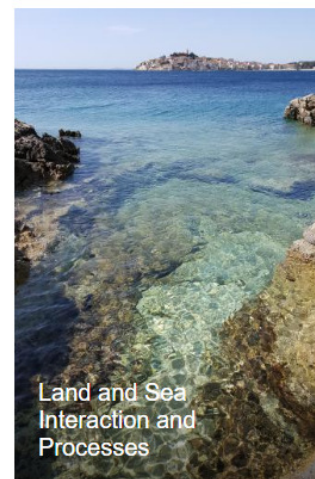
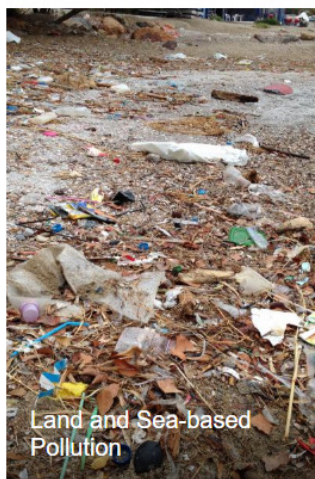
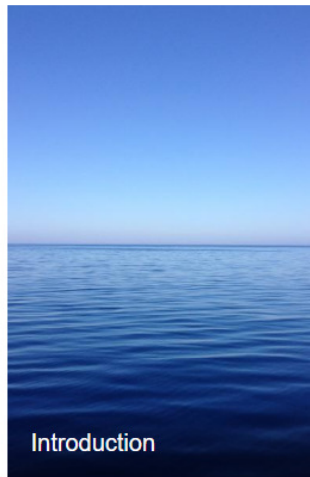
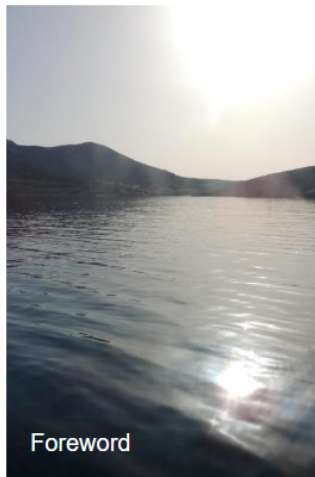
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Mediterranean 2017 Quality Status Report



2017 Mediterranean Quality Status Report

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Information note on the 2017 Quality Status Report (QSR2017) Elaboration process

1. The 2017 Quality Status Report (QSR2017) is the first report on the assessment of the status of the IMAP-based Ecological Objectives and related Common Indicators. The UNEP/MAP Programme of Work for the period 2016-2017, adopted at COP 19, has a specific output (Key Output 1.4.1 *“Periodic assessments based on DPSIR approach and published addressing inter alia status quality of marine and coastal environment, interaction between environment and development as well as scenarios and prospective development analysis in the long run. These assessments include climate change-related vulnerabilities and risks on the marine and coastal zone in their analysis, as well as knowledge gaps on marine pollution, ecosystem services, coastal degradation, cumulative impacts and impacts of consumption and production.”*) addressing such kind of region-wide assessments.

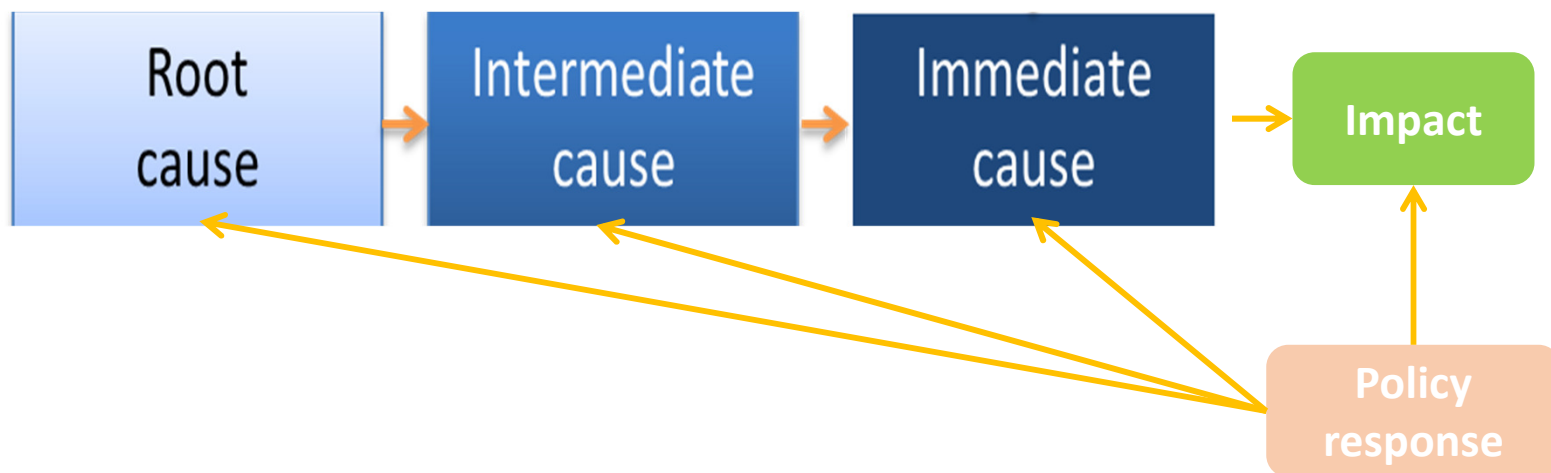
2. The specific activity for 2016-2017 is to *“Prepare and publish Quality Status Report (QSR) based on MAP EcAp-based EO and related common indicators”*. This task is entrusted to the UNEP/MAP Secretariat with the support of all the Components, including SPA/RAC. The QSR2017 will be presented to 20th ordinary Meeting of Contracting Parties to the Barcelona Convention (COP 20) in December 2017, that is expected to provide recommendations for such future assessments.



- **BPSIR:** Behavior - Pressure - State - Impact – Response
- **DPCER:** Driver - Pressure - Chemical state - Ecological state – Response
- **DPS:** Driver - Pressure – State
- **DPSEA:** Driver - Pressure - State - Effect – Action
- **DPSEEA:** Driver - Pressure - State - Exposure - Effect – Action
- **DPSEEAC:** Driver – Pressure – State – Exposure – Effect – Action - Context
- **DPSI:** Driver - Pressure - State – Impact
- **DPSIR:** Driver - Pressure - State - Impact – Response
- **DPSWR:** Driver - Pressure - State (change) - Welfare – Response
- **DSR:** Drivers - State – Response
- **EBM-DPSER:** Ecosystem Based Management/Driver - Pressure - State - Ecosystem service – Response
- **eDPSEEA:** *ecosystems-enriched* Driver - Pressure - State - Exposure - Effect – Actions
- **eDPSIR:** *enhanced* Driver - Pressure - State - Impact – Response
- **mDPSIR:** Driver - Pressure - State - Impact – Response
- **PD:** Pressures – Drivers
- **PSBR:** Pressure - State - Benefits – Response
- **PSIR:** Pressure - State - Impact – Response
- **PSR/E:** Pressure - State - Response – Effects
- **Tetrahedral DPSIR:** Driver - Pressure - State - Impact – Response (adapted)

Causal Chain Analysis (CCA)

Definition: a Causal Chain Analysis (CCA) is an ordered sequence of events linking the CAUSES of an ISSUE with its IMPACTS. Each link in the causal chain is created by repeatedly answering the question 'Why?'



A Causal Chain Analysis can be a component of a Policy Response System

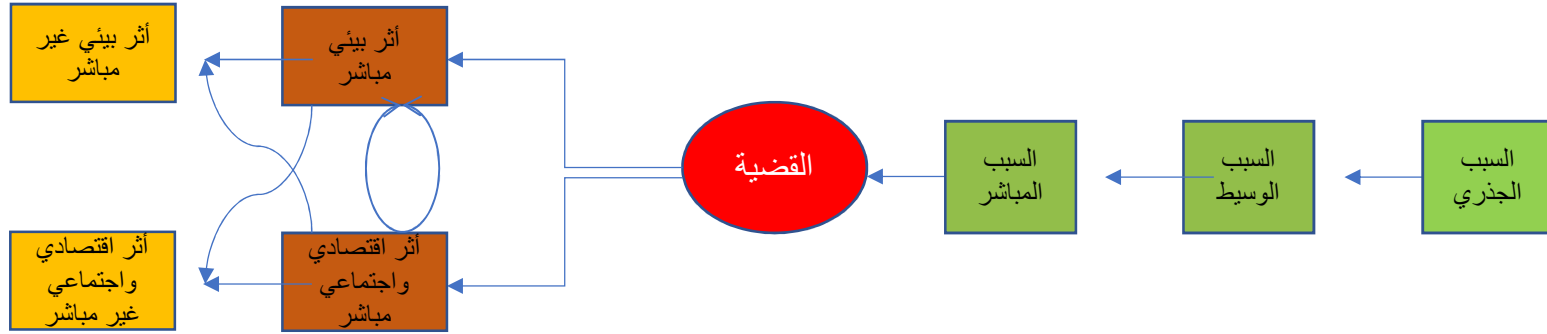
ما هي السلسلة السببية؟

السلسلة السببية تربط سبب القضية بأثرها



ما هو تحليل السلسلة السببية؟

- تحليل السلسلة السببية هو تسلسل منظم لأحداث تربط أسباب القضية بآثارها.
- يتم خلق كل رابط في السلسلة السببية عن طريق الإجابة عن سؤال "لماذا؟".



الآثار البيئية: هل تؤثر المشكلة العابرة للحدود على سلامة النظام البيئي؟

الآثار الاقتصادية والاجتماعية: هل يعزى التغير في رفاهة الناس إلى المشكلة العابرة للحدود أو آثارها البيئية؟

تحليل السلسلة السببية للتلوث النفطي

• مسارات سببية

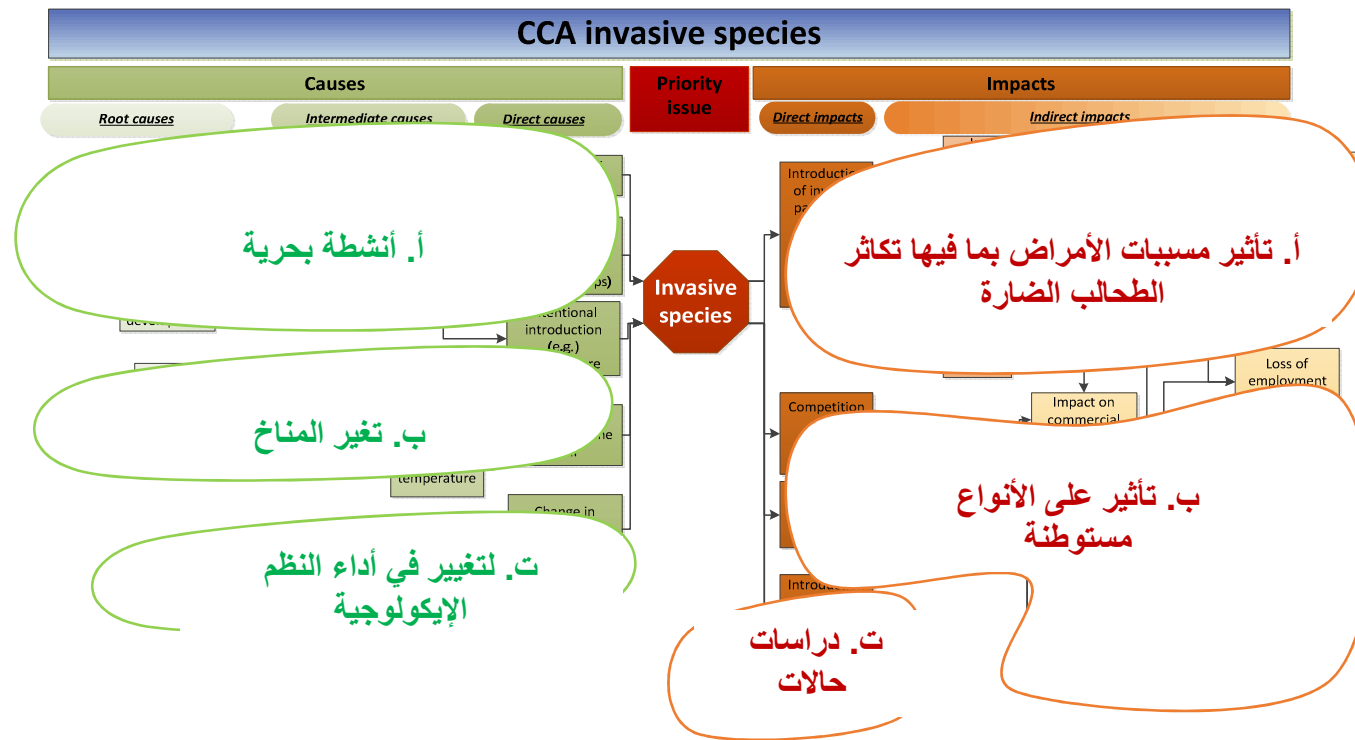
• مسارات تأثيرية



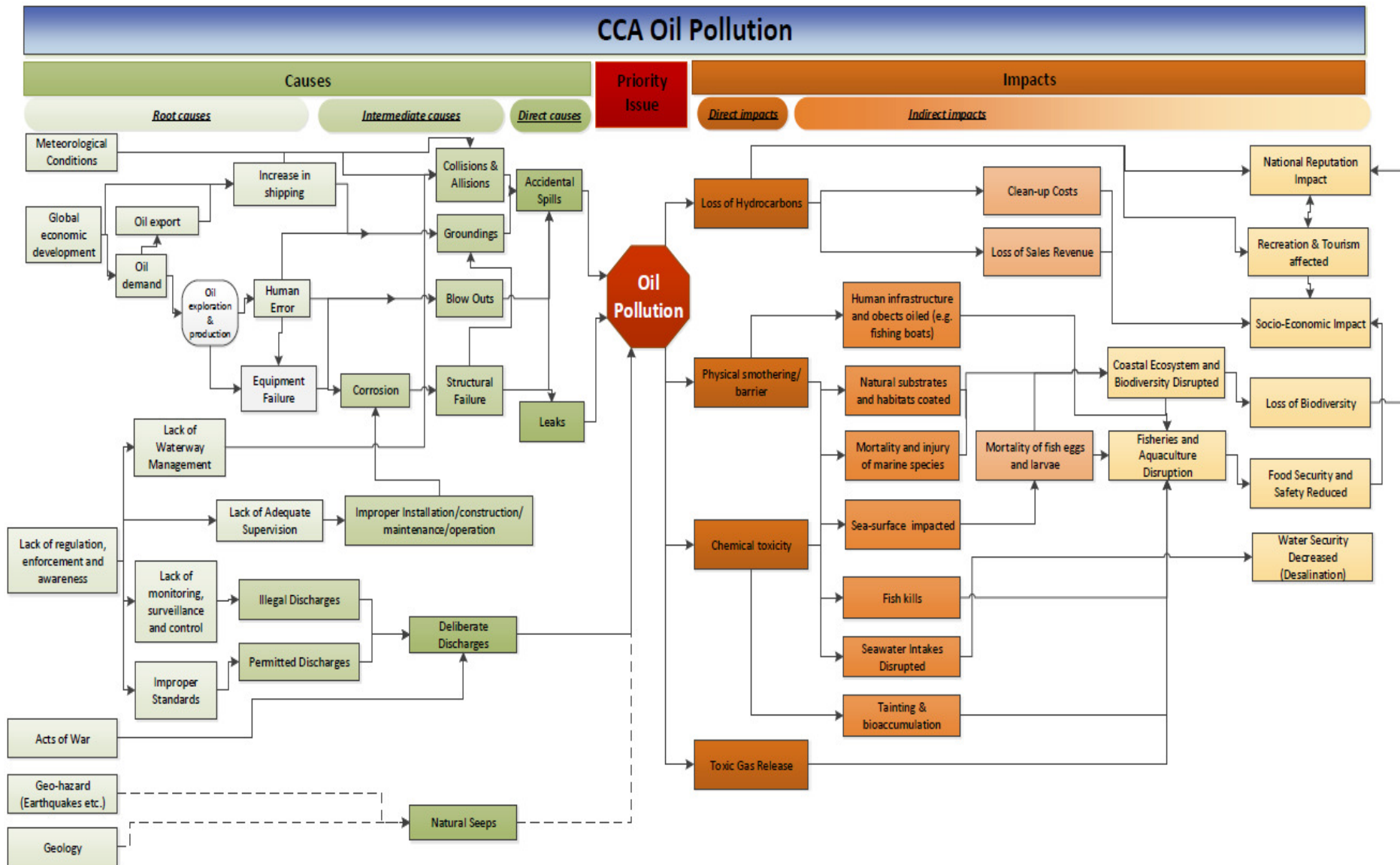
تحليل السلسلة السببية للكائنات الحية الغازية

• مسارات سببية

• مسارات تأثيرية



مثال: التلوث النفطي

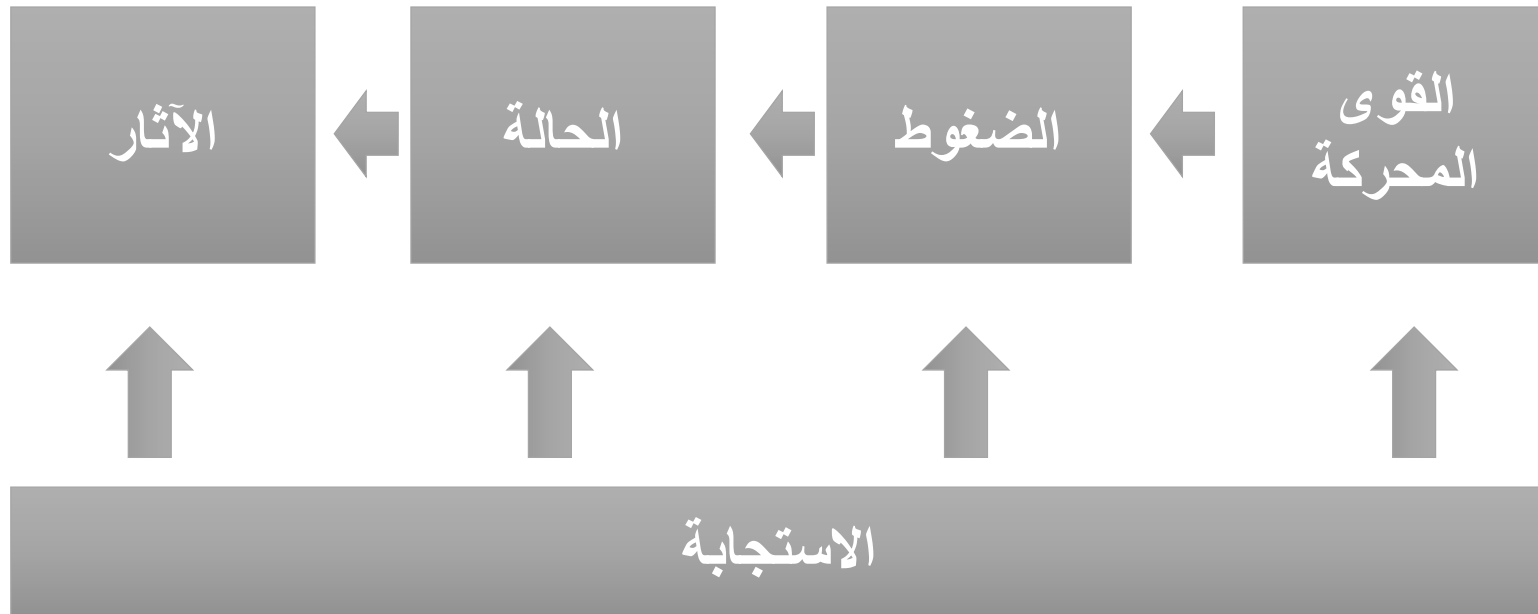




Stefania Merlo, Mediterranean sea. Dar Tellil, Libya

DPSIR Framework

- يعتمد التقرير على الاطار DPSIR والتي يعتمدها برنامج الأمم المتحدة للبيئة من أجل عمل التقييمات البيئية المتكاملة.



The geographical scope of this report is the whole Mediterranean Sea including its coastal zones. The framework used for the assessment of the state of the environment is the Driver-Pressure-State-Impact-Response (DPSIR) framework and this is reflected in the organisation of the report:

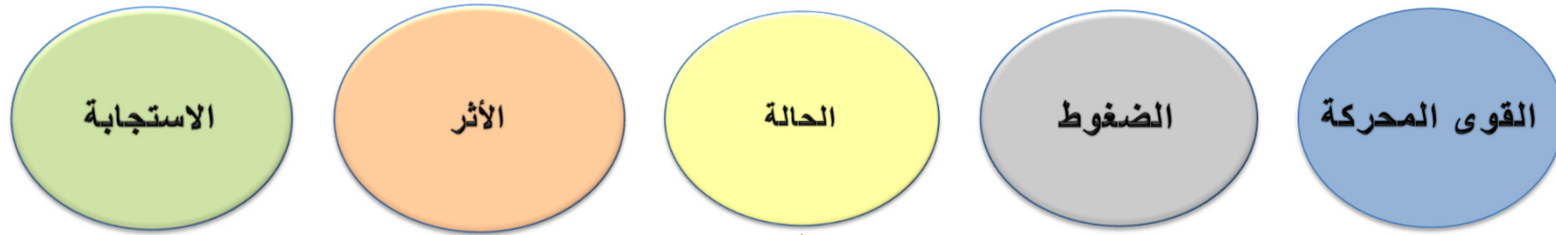
- Part I provides background information about the Mediterranean Basin, an overview of the major drivers in the Mediterranean region and an introduction on the interrelation between Mediterranean ecosystems and human drivers.
- Part II provides an analysis of the pressures, state and known impacts associated with each of the issues addressed by the Ecosystem Approach Ecological Objectives.
- Part III analyses the responses in terms of policy instruments to the issues analysed in Part II, highlights the major findings on the state of the marine and coastal environment as well as the major information gaps, and discusses future avenues for the continued application of the Ecosystem Approach.



يغطي هذا التقرير جغرافياً كاملَ منطقة البحر المتوسط بما فيها المناطق الساحلية للبحر. الإطارُ المستخدمُ في تقييم حالة البيئة هو إطار الدافع-الضغط-الحالة-الأثر-الاستجابة (DPSIR)، يظهر ذلك في تنظيم التقرير، إنَّ:

- يقدم الجزء الأول مدخلاً إلى حوض البحر الأبيض المتوسط، وهو نبذة عن أهم الدوافع في منطقة المتوسط وتعريفُ بالعلاقة المتبادلة بين النظم الإيكولوجية المتوسطة وبين الدوافع البشرية.
- ويقدم الجزء الثاني تحليلاً للضغوط والحالة والآثار المعروفة والمرتبطة بكل قضية من القضايا التي يتناولها نهج النظام الإيكولوجي في أهدافه الإيكولوجية.
- أما الجزء الثالث فيحلل الاستجابات بدلالة الأدوات السياسية للقضايا المتناولة في الجزء الثاني، ويسلط الضوء على أهم النتائج المتعلقة بحالة البيئة البحرية والساحلية وأهم الفجوات المعرفية، ويبيِّن سبلَ التطبيق المتواصل لنهج النظام الإيكولوجي في المستقبل.





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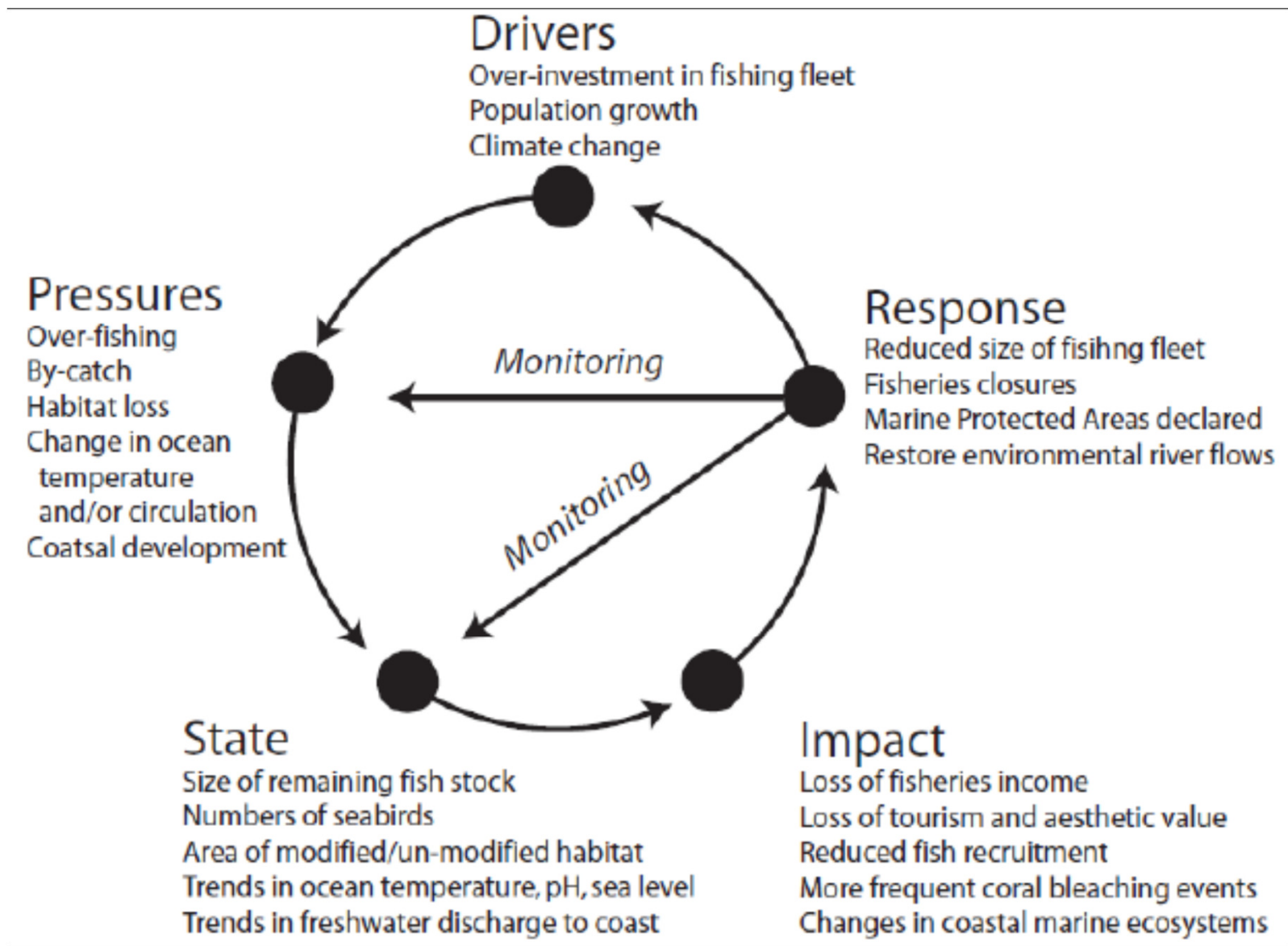
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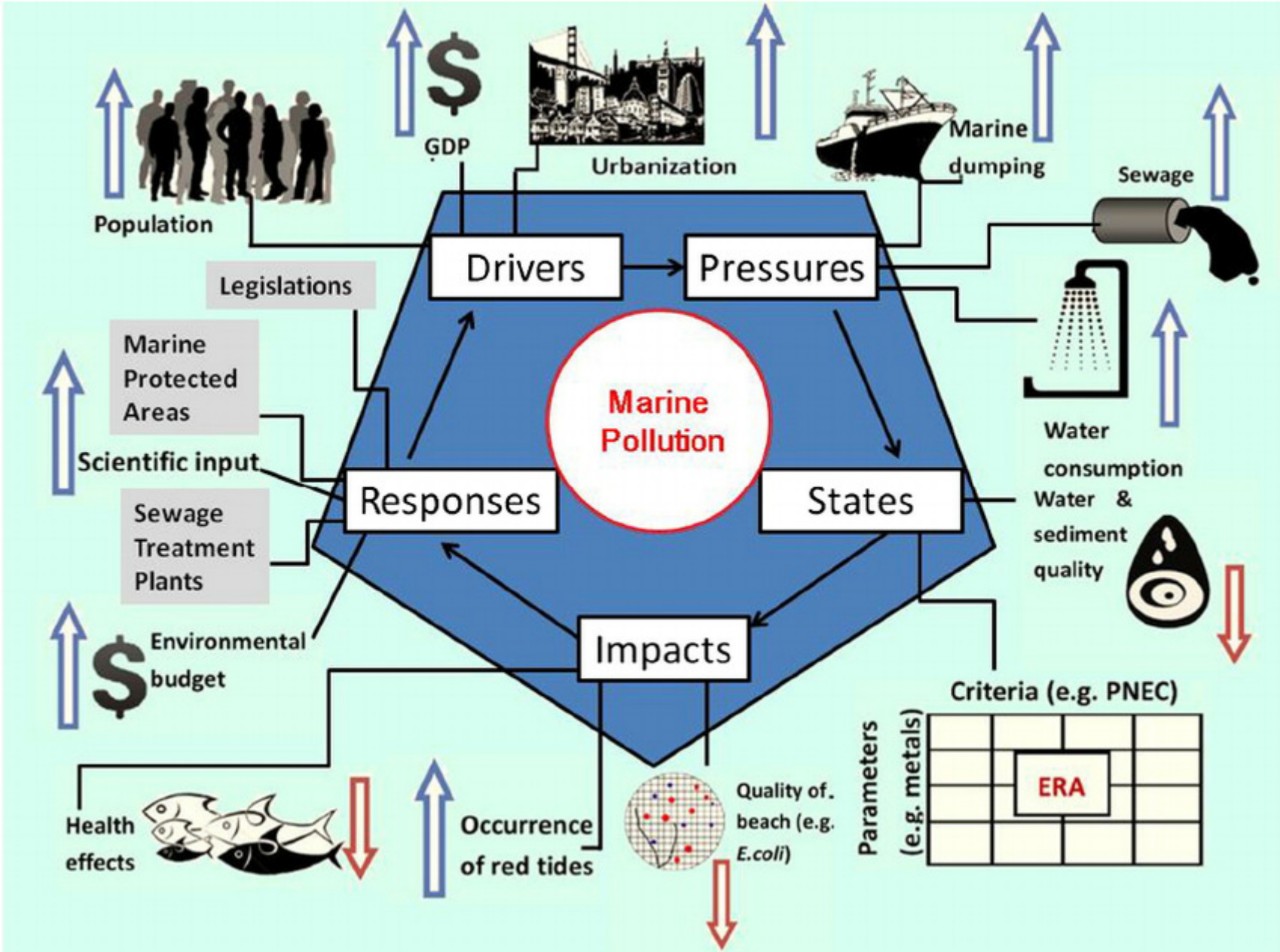
S

P

D

أدت الممارسات الزراعية الخاطئة والاستخدام المفرط للأسمدة (D) في حوض
 الصرف إلى زيادة في كميات النيتروجين و الفوسفور المنصرفة في الموارد
 المائية (P) الأمر الذي أدى إلى ازدهار الطحالب في المسطحات المائية التي
 تعمل على استنزاف الأوكسجين عند موتها وتراكمها في قاع المسطحات المائية
 (S)، مما يؤثر سلبا في الثروة السمكية وجودة المياه للشرب (I). وتتلخص
 الاستجابة من جانب المؤسسات الحكومية في تنظيم استخدام الأسمدة في
 الزراعة ومراقبة عملية الصرف الزراعي (R).





الفصل الخامس (المناطق الساحلية والبحرية)

المشاركون: م/ عبير يوسف ولي - ك/ أحمد حسن محمد

القضية: تدهور نوعية المياه الساحلية

القوى الدافعة	الضغوط	الحالة	التأثير	الاستجابة
الصرف الزراعي	ارتفاع في الملوثات بجميع أنواعها فمنها ارتفاع في تركيز العناصر الثقيلة وبكتريا القولون الكلية والإشيرشيا كولاي وبكتريا القولون السبحية وزيادة الانبعاثات	تدهور نوعية المياه الساحلية بحالاتها الفيزيائية والكيميائية والبكتريولوجية	نقص في إنتاج الثروة السمكية	قيام جهاز شئون البيئة بالتفتيش على المنشآت الصناعية ومحطات الصرف الصحي الواقعة بالمناطق الساحلية
الصرف الصناعي			تهديد بعض الكائنات البحرية بالانقراض	تم عمل برنامج قومي لرصد المياه الساحلية بالبحر المتوسط والبحر الأحمر وخليجي السويس والعقبة
الصرف الصحي			التأثير على السياحة البيئية ومنها التأثير على الدخل القومي	

الإجابة على خمسة أسئلة أساسية

5. ما الذي يمكن اتخاذه من إجراءات من أجل إيجاد مستقبل أكثر استدامة؟

خيارات العمل

4. وإلى أين نمضي؟

الرؤية

3. ما الذي يتم من إجراءات حيال ذلك وما مدى فاعليتها؟

الاستجابة (رد الفعل)

2. ما هي الآثار المترتبة بالنسبة للبيئة والبشر؟

الآثار

1. ماذا يحدث للبيئة؟ ولماذا؟

القوى المحركة - الضغوط - الحالة

معظم التقييمات تتوقف بعد هذا السؤال

في عملية التقييم البيئي للبيئة البحرية يجب أن نعرف ما يلي:

■ ما هي القضايا التي سنناقشها ويتضمنها التقرير؟

■ وما هي المؤشرات الدالة على تلك القضايا؟

■ وماهي البيانات التي يتطلبها حساب تلك المؤشرات؟

ما أهمية المؤشرات ؟

- تستخدم في تقارير التقييم البيئي وتقارير التنمية المستدامة.
- أداة هامة في تحديد المشاكل البيئية وتحليلها وتقييمها، وتحديد الأولويات ورصد التغير في مجالات البيئة والتنمية المستدامة مع مرور الزمن.
- وسيلة مهمة لمتابعة أداء السياسات وقياس التحسن في تحقيق أهداف محددة.
- تعطي صورة مبسطة عن حالة البيئة والتنمية المستدامة واتجاهاتها لمتخذ القرار.

يتطلب التقييم البيئي للبيئة البحرية توفر أدوات لرصد التغير وقياسه وإجراء التقييم والمتابعة

تشكل المؤشرات البيئية تلك الأدوات

- آداة هامة في تحديد المشاكل البيئية وتحليلها وتقييمها، وتحديد الأولويات ورصد التغير في مجالات البيئة والتنمية المستدامة مع مرور الزمن.
- وسيلة مهمة لمتابعة أداء السياسات وقياس التحسن في تحقيق أهداف محددة.
- تعطي صورة مبسطة عن حالة البيئة والتنمية المستدامة واتجاهاتها لمتخذ القرار.
 - تلخص حالة البيئة البحرية واتجاهاتها

تُبنى المؤشرات من البيانات

STATE OF THE MEDITERRANEAN MARINE AND COASTAL ENVIRONMENT

2012

الجزء الثاني

40 الضغط البشري والحالة والآثار على النظم الإيكولوجية في البحر الأبيض المتوسط

Coastal Ecosystems and Landscapes

النظم الإيكولوجية والمناظر الطبيعية الساحلية

Pollution

التلوث

Eutrophication

التثريف

Marine Litter

القمامة البحرية

Marine Noise

الضوضاء البحرية

Non-indigenous Species

الأنواع غير المحلية من الكائنات

Commercially Exploited Fish and Shellfish

السماك والمحار المستغل تجارياً

Sea-floor Integrity

سلامة قاع البحر

Hydrographic Conditions

الظروف الهيدروغرافية

Marine Food Webs

الشبكات الغذائية البحرية

Biodiversity

التنوع البيولوجي

Cumulative and Concurrent Impacts

التأثيرات التراكمية والمتزامنة

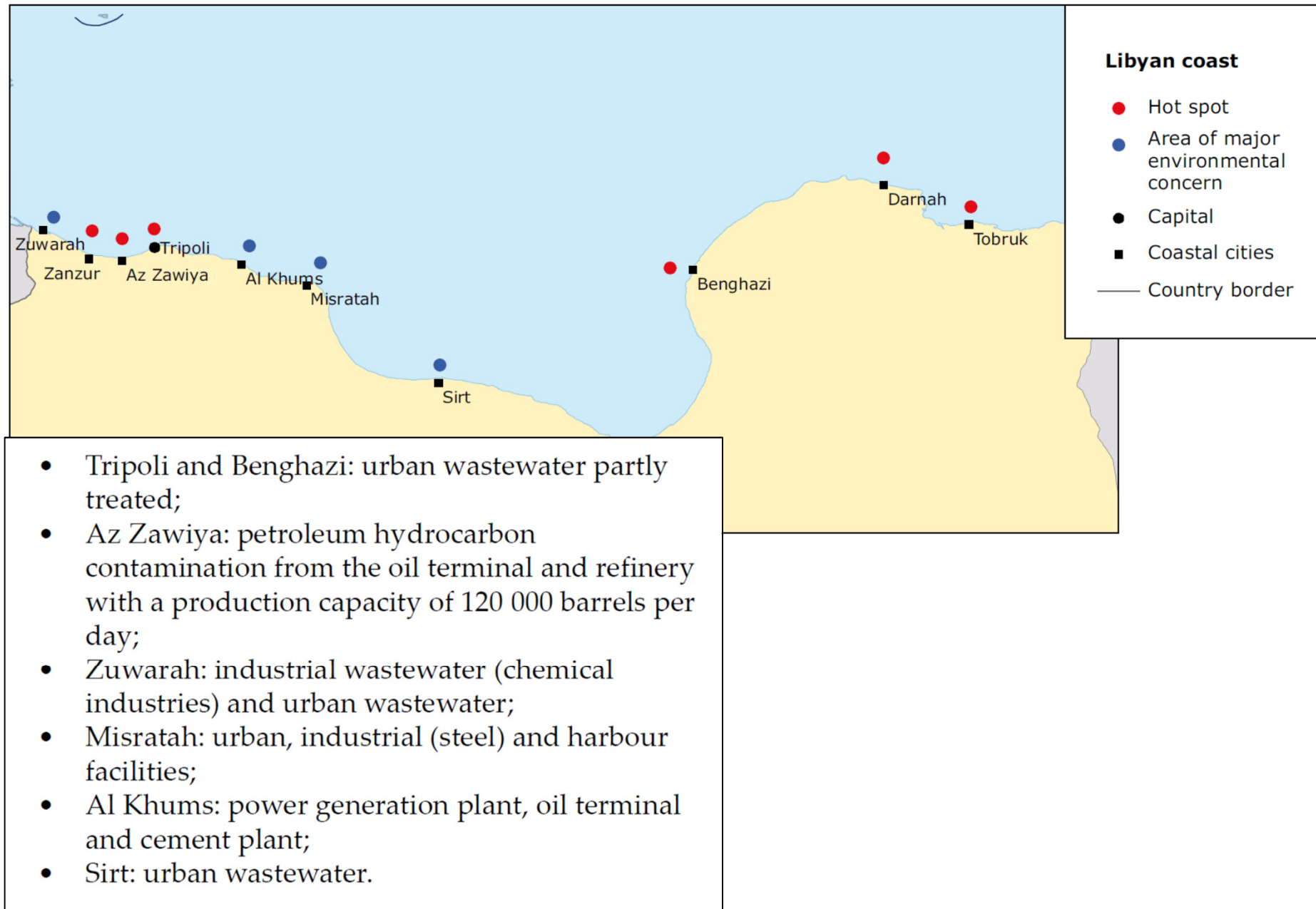
Priority issues in the Mediterranean environment

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تحديد القضايا البيئية الرئيسية الخاصة بالبيئة البحرية والساحلية لليبيا

- Urban Wastewater
- Petroleum hydrocarbon concentration
- Industrial wastewater
- Oil spills
- Invasive species
- Coastal degradation
- Sea level rise
- Biodiversity protection and the creation of coastal protected areas.
- Pollution of coastal waters by municipal, industrial, and ship - generated waste.
- Lack of public awareness and participation.
- Participation in international agreements such as the Biodiversity Convention.

Figure 3.12 Libyan coast with areas of major environmental concern and pollution hot spots





SUSTAINABLE DEVELOPMENT GOALS



SUSTAINABLE DEVELOPMENT GOAL 14

Conserve and sustainably use the oceans, seas and marine resources for sustainable development



Target	Indicator
Goal 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development	
14.1 By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution	14.1.1 Index of coastal eutrophication and floating plastic debris density
14.2 By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans	14.2.1 Proportion of national exclusive economic zones managed using ecosystem-based approaches
14.3 Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels	14.3.1 Average marine acidity (pH) measured at agreed suite of representative sampling stations
14.4 By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics	14.4.1 Proportion of fish stocks within biologically sustainable levels
14.5 By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on the best available scientific information	14.5.1 Coverage of protected areas in relation to marine areas
14.6 By 2020, prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing, eliminate subsidies that contribute to illegal, unreported and unregulated fishing and refrain from introducing new such subsidies, recognizing that appropriate and effective special and differential treatment for developing and least developed countries should be an integral part of the World Trade Organization fisheries subsidies negotiation	14.6.1 Progress by countries in the degree of implementation of international instruments aiming to combat illegal, unreported and unregulated fishing
14.7 By 2030, increase the economic benefits to small island developing States and least developed countries from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism	14.7.1 Sustainable fisheries as a percentage of GDP in small island developing States, least developed countries and all countries
14.a Increase scientific knowledge, develop research capacity and transfer marine technology, taking into account the Intergovernmental Oceanographic Commission Criteria and Guidelines on the Transfer of Marine Technology, in order to improve ocean health and to enhance the contribution of marine biodiversity to the development of developing countries, in particular small island developing States and least developed countries	14.a.1 Proportion of total research budget allocated to research in the field of marine technology
14.b Provide access for small-scale artisanal fishers to marine resources and markets	14.b.1 Progress by countries in the degree of application of a legal/regulatory/policy/institutional framework which recognizes and protects access rights for small-scale fisheries
14.c Enhance the conservation and sustainable use of oceans and their resources by implementing international law as reflected in the United Nations Convention on the Law of the	14.c.1 Number of countries making progress in ratifying, accepting and implementing through legal, policy and institutional frameworks, ocean-related

ENI SEIS II South

Implementation of the Shared Environmental Information System (SEIS) ENP South region - SEIS Support Mechanism

Waste:

1. *Municipal waste generation - With additional information on municipal waste composition*
2. *Collected and treated municipal waste - With additional information on: Number, type and location of landfills*

Water:

3. *Share of total, urban and rural population with access to an improved sanitation*
4. *Volume of wastewater collected, of which volume of wastewater treated, including type of treatment*
5. *Nutrient concentrations in transitional, coastal and marine waters*

Industrial Emissions:

6. *Release of toxic substances and nutrients from industrial sectors.-*

مجموعات العمل

1. تحديد القضية المحورية لتقييم حالة البيئة البحرية والساحلية بدولة ليبيا
2. تحديد القضايا البيئية الرئيسية الخاصة بالبيئة البحرية والساحلية لليبيا
3. تحديد القضايا الفرعية لكل قضية رئيسية
4. إعداد DPSIR للقضايا الرئيسية
5. تحديد المؤشرات ذات الأولوية لتقييم حالة البيئة البحرية بدولة ليبيا لكل قضية فرعية
6. تحديد مصادر البيانات للمؤشرات
7. الاتفاق على محتوى وهيكل التقرير (الابواب والفصول)
8. تحديد المواضيع المختلفة بالفصول

The way forward

- تحديد المؤلفون الرئيسون و المؤلفين المساعدين لكل فصل
- مراجعة و تحديث و كتابة الشروط المرجعية للفصول
- مراجعة دليل الصياغة
- الاتفاق على الجدول الزمني لتقديم المسودة الاولى



European
Environment
Agency

ورشة عمل تحديد المؤشرات ذات الأولوية لتقييم حالة البيئة البحرية بدولة ليبيا
الإسكندرية، ١٢-١١ سبتمبر ٢٠١٨

القضية المحورية للتقرير:

القضايا الرئيسية:

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ورشة عمل تحديد المؤشرات ذات الأولوية لتقييم حالة البيئة البحرية بدولة ليبيا

الإسكندرية، ١٢-١١ سبتمبر ٢٠١٨

القضية الرئيسية:

القضايا الفرعية:

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القضية:

الاستجابة	التأثير	الحالة	الضغوط	القوى الدافعة

المؤشرات

القضية الرئيسية	القضايا الفرعية	المؤشرات	الجهة/مصدر البيانات

شاح م م للهدف م الف	الموضوع الملائمة الف	الف المفتح
		.1
		.2
		.3
		.4
		.5