Grandi infrastrutture – le sfide ambientali/sociali ed il supporto degli studi modellistici

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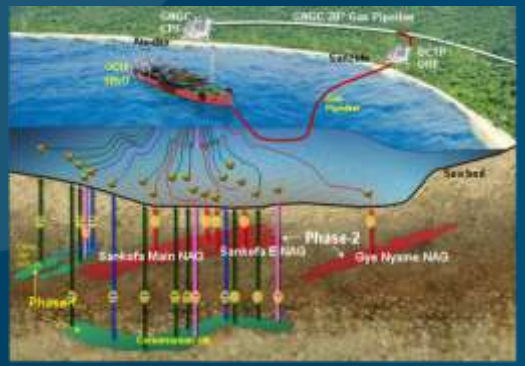
Torino, 14-15 Ottobre 2015

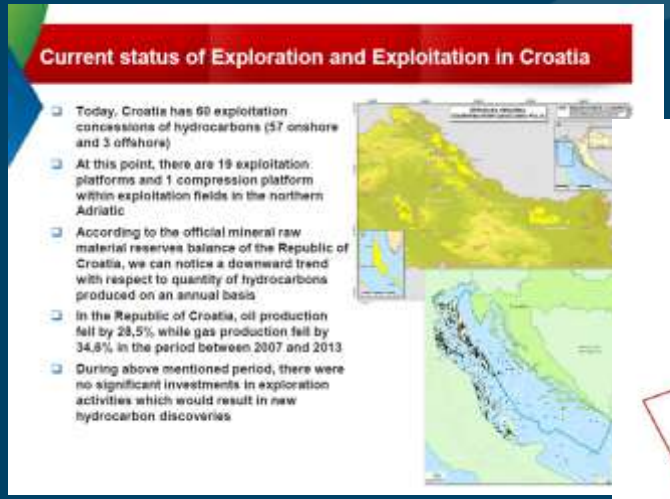
Agenda

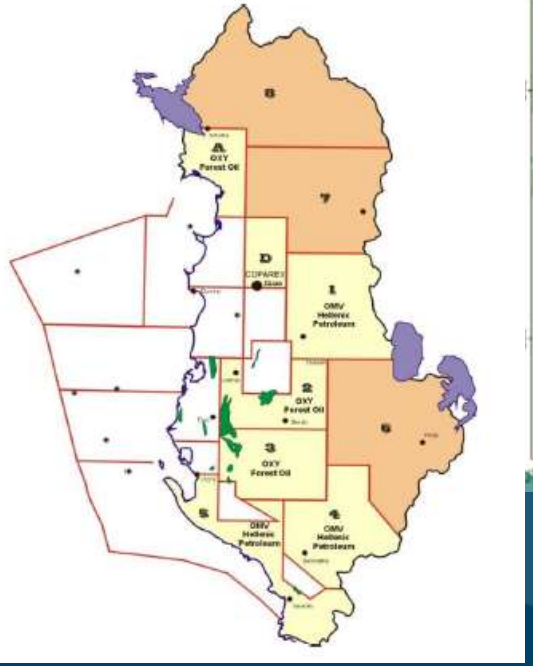
- Introduzione
- Ecosistemi Marini e Impatti
- Standard/Aspettative/Trend
- Il Supporto dei Modelli nella Valutazione d'Impatto Ambientale
- Conclusioni

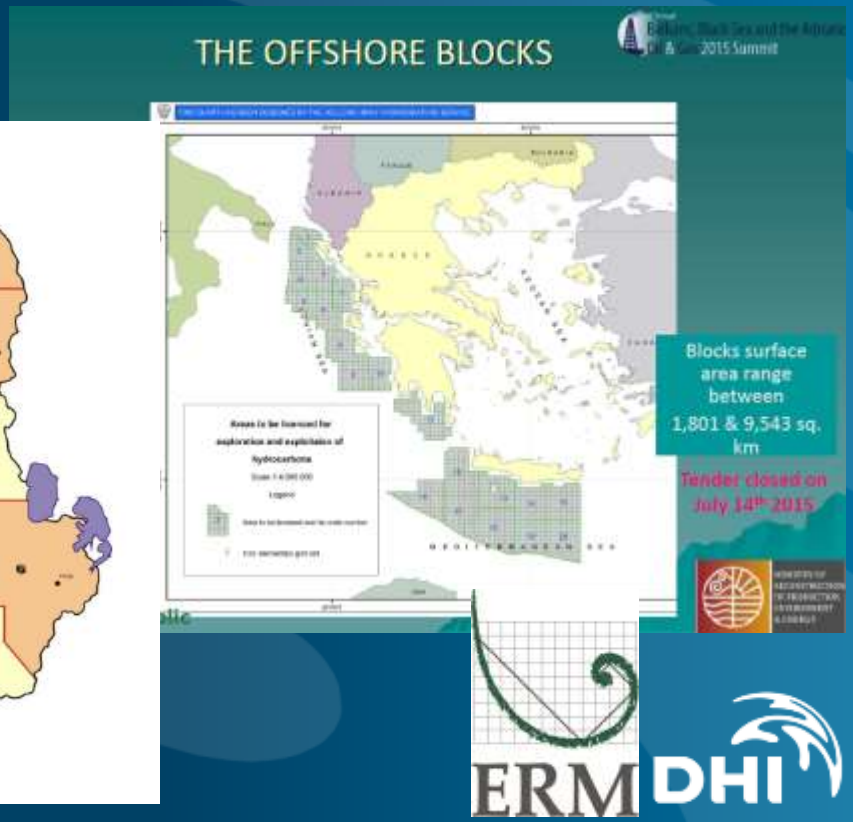
Introduzione



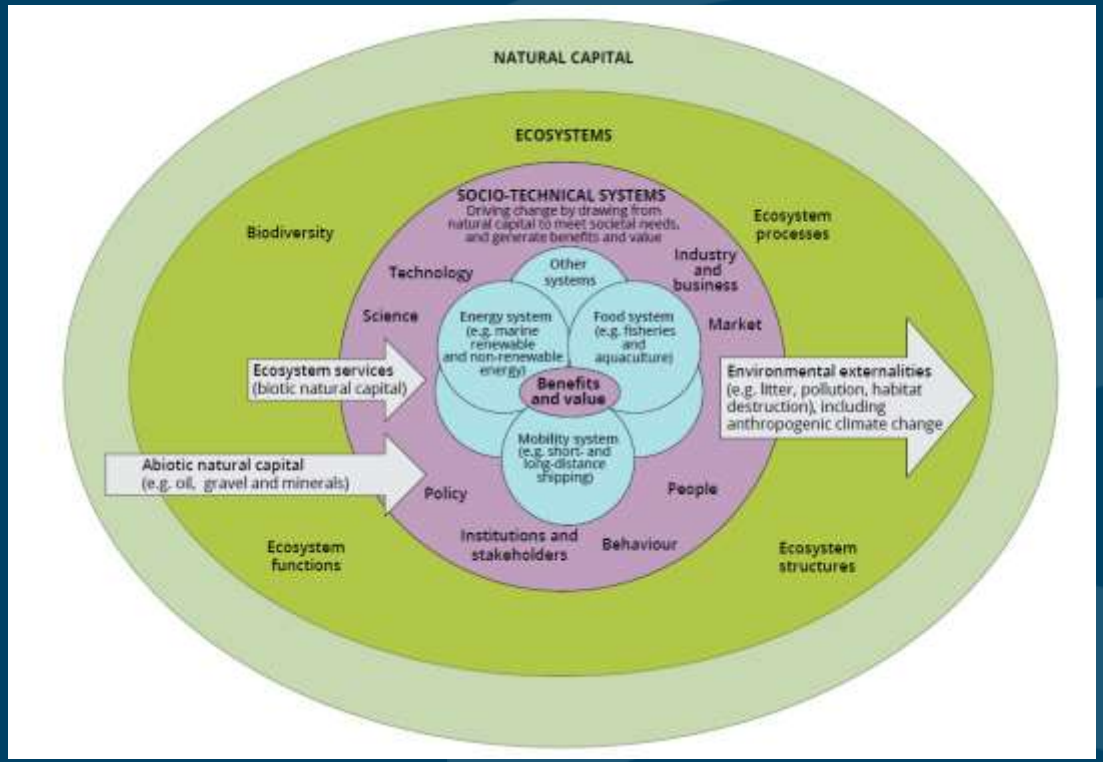
Introduzione







Ecosistemi Marini e Impatti

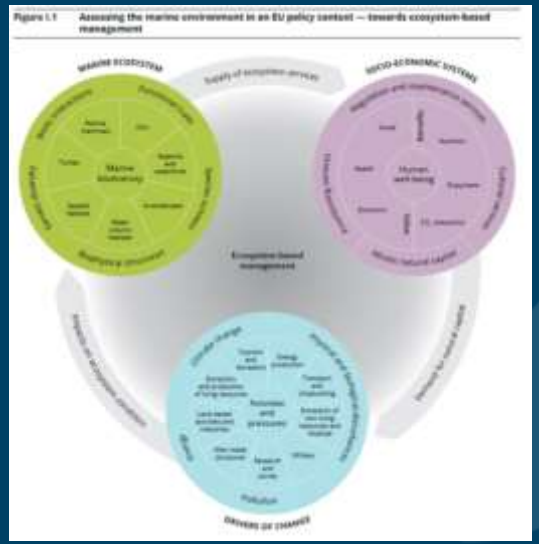


Ecosistemi Marini e Impatti

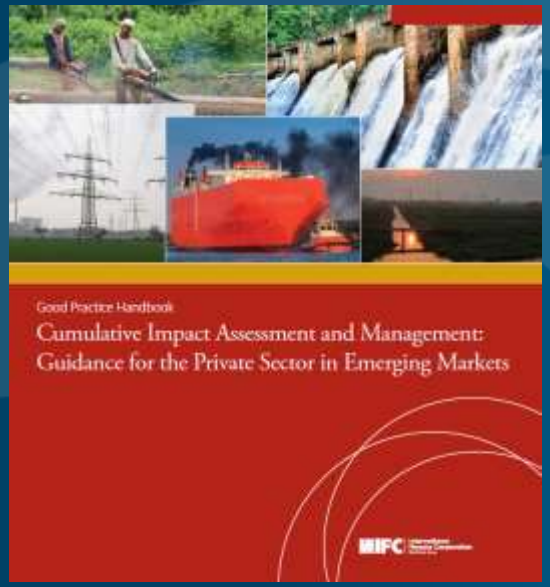
- *Posidonia oceanica*:
  - Specie minacciata (IUCN red-list) - Habitat Comunitario (Natura 2000);
  - Elemento chiave di svariati servizi ecosistemici;
  - Specie in declino, minacciata da :
    - impatti diretti (perdita fisica);
    - impatti indiretti (inquinamento/disturbo biologico/invasione di specie aliene).

Standard/Aspettative/Trend

- *Aspetti normativi :*
  - Impatti transfrontalieri
  - Marine Strategy Framework Directive/Common Fisheries Policy

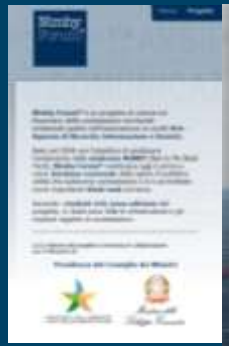


- *Standard Internazionali:*

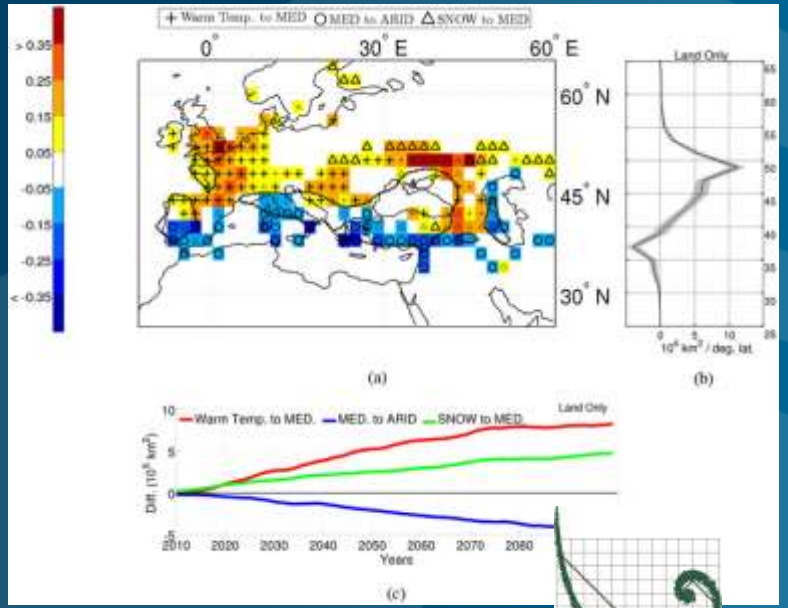


Standard/Aspettative/Trend

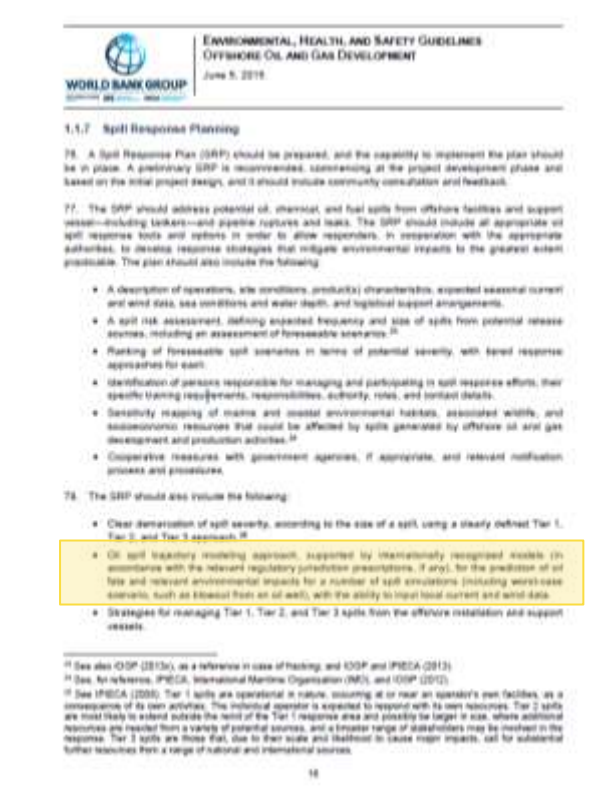
- *Aspettative : Social License*



- *Trend : Climate Change:*



Il Supporto dei Modelli nelle VIA



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ENVIRONMENTAL, HEALTH, AND SAFETY GUIDELINES
OFFSHORE OIL AND GAS DEVELOPMENT

June 9, 2015

1.1.7 Spill Response Planning

78. A Spill Response Plan (SRP) should be prepared, and the capability to implement the plan should be in place. A preliminary SRP is recommended, commencing at the project development phase and based on the initial project designs, and it should include community consultation and feedback.

77. The SRP should address potential oil, chemical, and fuel spills from offshore facilities and support vessel—including tankers—and pipeline ruptures and leaks. The SRP should include all appropriate oil spill response tools and options in order to allow responders, in cooperation with the appropriate authorities, to develop response strategies that mitigate environmental impacts to the greatest extent practicable. The plan should also include the following:

- A description of operations, site conditions, product(s) characteristics, expected seasonal current and wind data, sea conditions and water depth, and logistical support arrangements.
- A spill risk assessment, defining expected frequency and size of spills from potential release sources, including an assessment of foreseeable scenarios.[9]
- Ranking of foreseeable spill scenarios in terms of potential severity, with tiered response approaches for each.
- Identification of persons responsible for managing and participating in spill response efforts, their specific training requirements, responsibilities, authority, roles, and contact details.
- Sensitivity mapping of marine and coastal environmental habitats, associated wildlife, and socioeconomic resources that could be affected by spills generated by offshore oil and gas development and production activities.[10]
- Cooperative measures with government agencies, if appropriate, and relevant notification process and procedures.

78. The SRP should also include the following:

- Clear demarcation of spill severity, according to the size of a spill, using a clearly defined Tier 1, Tier 2, and Tier 3 approach.[11]
- Oil spill trajectory modeling approach, supported by internationally recognized models (in accordance with the relevant regulatory jurisdiction prescriptions, if any), for the prediction of oil fate and relevant environmental impacts for a number of spill simulations (including worst-case scenario, such as blowout from an oil well), with the ability to input local current and wind data.
- Strategies for managing Tier 1, Tier 2, and Tier 3 spills from the offshore installation and support vessels.

[9] See also IOSP (2013c), as a reference in case of fracking, and IOSP and IPIECA (2013).
[10] See, for reference, IPIECA, International Maritime Organization (IMO), and IOSP (2012).
[11] See IPIECA (2000). Tier 1 spills are operational in nature, occurring at or near an operator's own facilities, as a consequence of its own activities. The individual operator is expected to respond with its own resources. Tier 2 spills are most likely to extend outside the remit of the Tier 1 response area and possibly be larger in size, where additional resources are needed from a variety of potential sources, and a broader range of stakeholders may be involved in the response. Tier 3 spills are those that, due to their scale and likelihood to cause major impacts, call for substantial further resources from a range of national and international sources.

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Conclusioni

- Banche dati di input : consistenti, aggiornate, accessibili, adeguate
- Strumenti modellistici : flessibili, efficaci, riconosciuti e vincolanti;
- Approccio deterministico :
  - accuratezza nella simulazione dei fenomeni fisici;
  - incertezza nella simulazione delle risposte dei recettori;
- Risorse (Industria, Legislatori, Autorità Competenti e Stakeholders) : preparate e competenti

Grazie

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