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Marine pollution regulation in the EU

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Main pollution issues in EU marine waters

- ▶ Nutrients (Eutrophication → O₂- depletion)
- ▶ Hazardous substances/ Emerging pollutants
- ▶ Marine litter (plastics)
- ▶ Noise pollution



EU Environmental legislation with a link to marine pollution

- ▶ **Marine Strategy Framework Directive (MSFD)**
- ▶ Water Framework Directive (WFD)
 - ▶ Bathing water directive
 - ▶ Nitrates directive
 - ▶ Urban Wastewater Treatment Directive
- ▶ Habitats and Species Directive
- ▶ Landfill Directive
- ▶ Integrated Pollution Prevention and Control Directive
- ▶ Environmental Impact Assessment Directives



About the MSFD (1)

- ▶ Came into force: 06/2008, transposition into national law by 07/2010
- ▶ Aim: *Good Environmental Status (GES)* by 2020
- ▶ MS obliged to devise marine strategies
- ▶ Establishment of 4 marine regions:
 - ▶ Baltic Sea
 - ▶ North-East Atlantic Ocean
 - ▶ Black Sea
 - ▶ Mediterranean Sea



Source: EEA, 2010

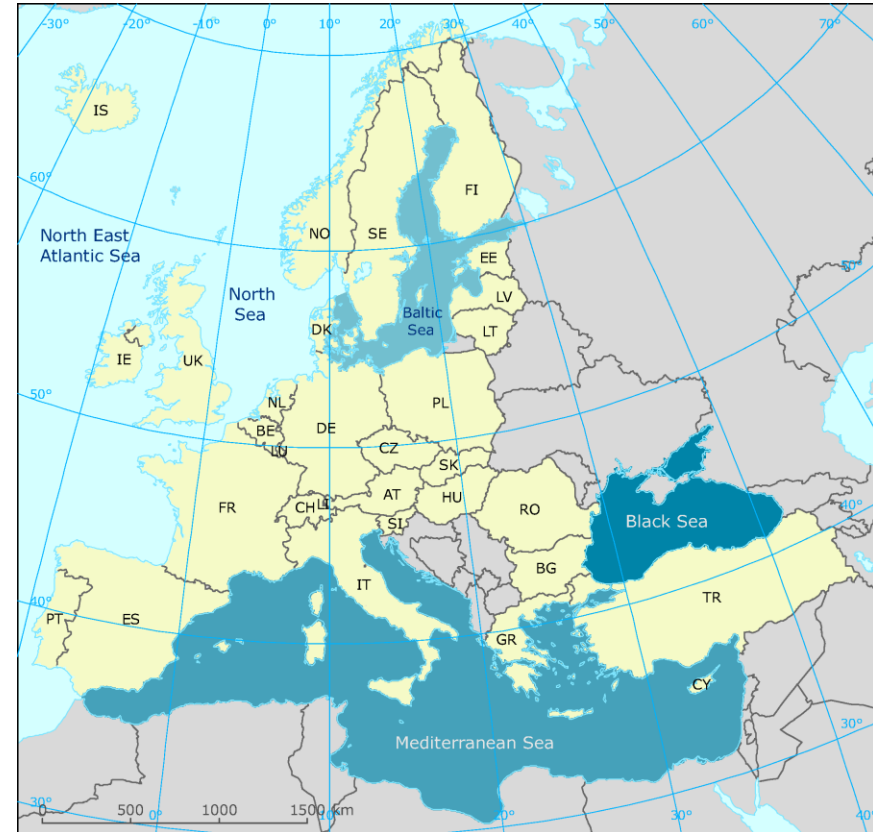


About the MSFD (2)

Special role of Regional Seas

Conventions:

- ▶ OSPAR (North-East Atlantic)
- ▶ HELCOM (Baltic Sea)
- ▶ Barcelona (Mediterranean Sea)
- ▶ Bucharest (Black Sea)



Source: EEA, 2010



About the MSFD (3)

Marine Strategies- Logical framework:

- ▶ What is an area like?
- ▶ What should it be like with minimal interference?
- ▶ **If the above two differ: Take action (mitigation/compensation) or make a socio-economic case for accepting the change.**












About the MSFD (4)

6- Year adaptive policy cycle





About the MSFD (5): ANNEX 1: Descriptors for GES

-  1 Biological diversity
-  2 Non-indigenous species
-  3 Populations of commercially exploited fish
-  4 Food webs
-  5 Human-induced eutrophication
- 6 Sea-floor integrity
- 7 Hydrographical conditions
-  8 Concentration of contaminants
-  9 Contaminants in fish and seafood
-  10 Marine litter
-  11 Energy, including underwater noise



MSFD vs WFD

WFD (2000/60/EC)

- ▶ Water management by hydrological catchments
- ▶ Applies up to 1nm from land (coastal waters)
- ▶ Good *Ecological* Status by 2015

MSFD (2008/56/EC)

- ▶ Marine management by regional sea basins
- ▶ Applies to all marine waters (including coastal)
- ▶ Good *Environmental* Status by 2020



MSFD vs WFD

WFD

Good *Ecological* Status

“the status of a body of surface water, classified in accordance with Annex V”

Annex V gives detailed descriptors for all water body types for different chemistry, taxa, etc.)

MSFD

Good *Environmental* Status

describes “the environmental status of marine waters where these provide ecologically diverse and dynamic oceans and seas which are clean, healthy and productive within their intrinsic conditions, and **the use of the marine environment** is at a level that is sustainable, thus **safeguarding the potential for uses and activities** by current and future generations”



MSFD vs WFD

WFD

Assessment of Ecological Status

1. Ecosystem is split into different components (Quality Elements, QE)
2. Every QE is assessed on it's own
3. Results are combined (Rule: one out-all out!
→ Lowest status is used for classifying whole water body)

MSFD

Assessment of Environmental Status

1. Whole ecosystem is assessed with respect to 11 descriptors (combining ecological objectives and pressures!)
2. Results are combined (no OOA!)



Source: van Acoleyen et al. (2013)

Excursion:

The role of the Regional Seas Conventions in the implementation of the MSFD:

Marine litter mgt



Role of Regional Seas Conventions: Marine litter mgt (1)

What is marine litter? → Cigarette butts, plastic bags, bottle caps, cotton buds, plastic bottles, fishing nets, microplastics (fibres, particles)

- ▶ ... sea-based or land-based
- ▶ ... can be tackled at different levels in the waste chain (reduce-reuse-recycle-recovery-landfill) → Complex regulatory system
- ▶ Who regulates/manages marine litter?
 - ▶ National authorities (Environmental Ministry, (Water Ministry) & associated agencies, municipalities)
 - ▶ **Regional Seas Conventions**
 - ▶ EU authorities: European Commission (DG Environment for MSFD, WFD)
 - ▶ International authorities: UNEP, IMO (FAO)



Role of Regional Seas Conventions: Marine litter mgt (2)

- ▶ **What have RSCs done on ML so far?** Assessments of ML, development of monitoring methods: HELCOM, OSPAR (Barcelona), BUT: different approaches regarding development of measures
- ▶ OSPAR: *Recommendation*: Regional action on ML: Measures structured into: Sea-based sources, land-based sources, litter removal from the marine environment, education & outreach on ML
- ▶ HELCOM: Regional action plan on ML (to be adopted as *recommendation* in 2015)
 - ▶ Recommendation 24/5 (2003) “Proper handling of Waste/Landfilling”
 - ▶ HELCOM Recommendation 28E/10 “Application of the no-special-fee system to ship-generated wastes and marine litter caught in fishing nets in the Baltic Sea area” & other recommendations on port reception facilities



Role of Regional Seas Conventions: Marine litter mgt (3)

- ▶ Barcelona convention / UNEP-MAP:
 - ▶ 1980 Protocol for the Protection of the Mediterranean Sea against Pollution from Land-Based Sources (LBS) (amended in 1996): ML defined as issue, MS obliged to monitor& devise measures, educational programmes on ML (Art 5) → development of national action plans on LBS.
 - ▶ Evaluation of LBS protocol in 2000: ML problem persisted, possibly due to lack of adequate infrastructure, a lack of vertical administrative coordination , lack of awareness
- ▶ Bucharest Convention: 2 protocols related to ML:
 - ▶ Protocol on protection of the Black Sea marine environment against pollution from land based sources
 - ▶ Protocol on the protection of the Black Sea marine environment against pollution by dumping and Black Sea Biodiversity and Landscape Conservation Protocol
 - ▶ Strategic Action Plan for the Environmental Protection and Rehabilitation of the Black Sea should operationalize protocols → **delays in implementation**



Role of Regional Seas Conventions: Marine litter mgt (4)

Conclusions:

- ▶ Different approaches and different degrees of progress regarding ML
- ▶ *Recommendations* are not legally binding
- ▶ RSCs have no vehicle to punish defaulters, unlike the EU which can take action against member states for infringement of its directives.
- ▶ All RSCs are ultimately dependent on the will of their contracting parties, and can be severely handicapped by a lack of political commitment!
- ▶ MSFD POMS are only due in 2015. Whether MS will follow general lines RSCs or not in their POMs remains to be seen



Experience with MSFD implementation so far

- ▶ Implementation has promoted public debate
- ▶ A lot of data has been collected
- ▶ Regional cooperation has been triggered

But...

- ▶ Limited data availability (particularly on D10 and D11)
- ▶ Limited ambition of GES and targets
- ▶ Lack of coherence, even betw neighbouring countries

What is looming in 2020:

- ▶ MS-based mgt & reporting vs transboundary nature of marine ecosystems
- ▶ Ecological timeframe - political timeframe



Source: O'Higgins et al. 2014



Thank you for listening.

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