



Threshold values for good environmental status Sea-floor integrity (Descriptor 6)

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Why do we need a healthy seabed

- Healthy seabed habitats are a key part of healthy marine ecosystems and provide numerous ecosystem services.
- They provide nursery and spawning grounds for many species.
- Seabed habitats are under pressure from many anthropogenic pressures.

- EU seafloor is over 1.8 times larger than EU's land area.
- It is home to some 2500 species of benthic organism.
- 79% of the EU's coastal seabed is considered to be physically disturbed (COM(2020) 259 final)



MSFD Descriptor 6 – Sea-floor integrity

- *“Sea-floor integrity is at a level that ensures that the structure and functions of the ecosystems are safeguarded and benthic ecosystems, in particular, are not adversely affected.”*
- Five criteria to define good environmental status for D6 (Commission Decision 2017/848).
- Requirements to define thresholds at Union level for:
 - **Habitat loss (D6C4):**
 - Maximum allowable extent of habitat loss
 - **Adverse effects on habitats (D6C5):**
 - Level of adverse effects on the condition of the seabed
 - Maximum allowable extent of adverse effects



Recommendation for a threshold value for the **maximum allowable extent of habitat loss (D6C4)**

- Loss is a **permanent change** to the seabed substrate.
- Drastic global decline in biodiversity and precautionary principle but allowing for the sustainable use of marine goods and services.
- The total extent of habitat loss should be determined by taking into account the documented changes to the habitat type as far back as possible and at least since 1992.

The maximum proportion of a benthic broad habitat type in an assessment area that can be lost is 2% of its natural extent ($\leq 2\%$) (D6C4).

Recommendation for threshold value for **adverse effects on the condition of habitat types** (D6C5 – quality)

- Effects from anthropogenic pressures cause changes to the biotic and/or abiotic character of a habitat.
- Avoiding adverse effects = achieving ‘good’ quality/condition of the seabed.
- Many indicators to assess adverse effects but no single indicator captures all elements needed.

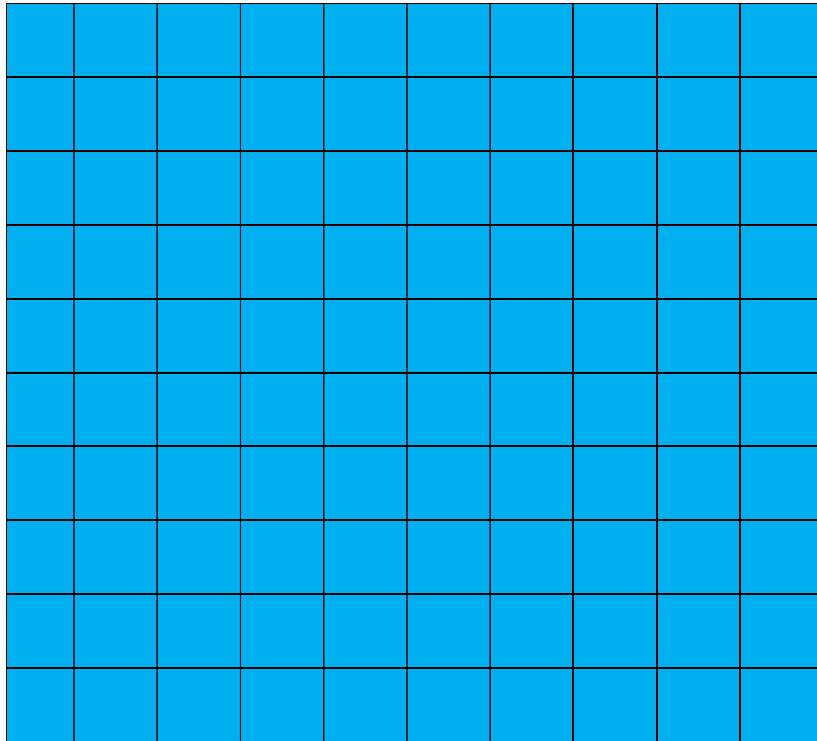
A benthic broad habitat type is adversely affected in an assessment area if it shows an unacceptable deviation from the reference state in its biotic and abiotic structure and functions (e.g. typical species composition, relative abundance and size structure, sensitive species or species providing key functions, recoverability and functioning of habitats and ecosystem processes) (D6C5).

Recommendation for a threshold value for the **maximum allowable extent of adverse effects** (D6C5 - extent)

- Rationale based on precautionary principle, scientific recommendations to reduce pressure on the seabed, EU legal and policy frameworks (Habitats Directive, Biodiversity Strategy).

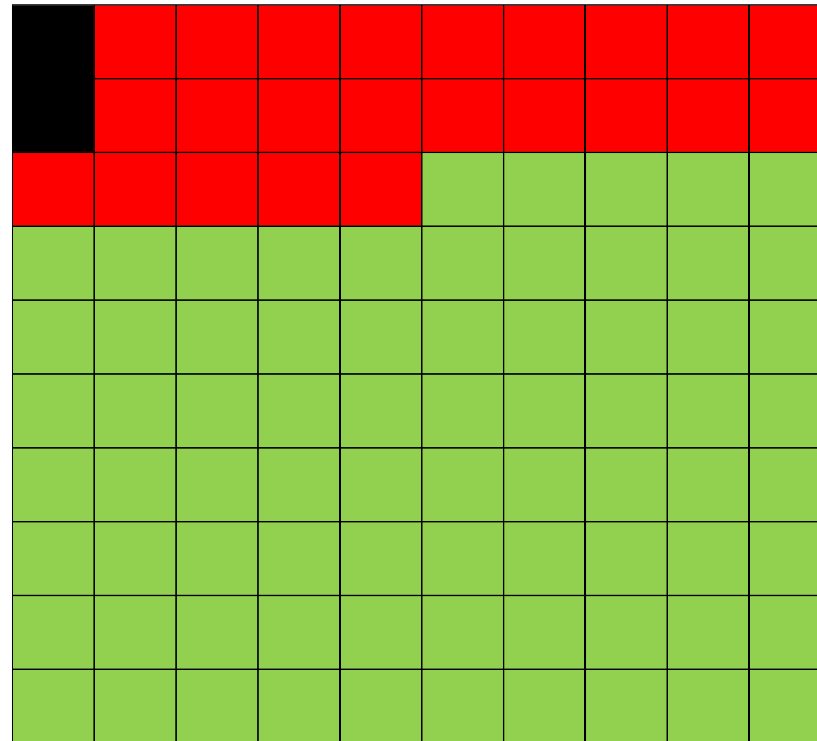
The maximum proportion of a benthic broad habitat type in an assessment area that can be adversely affected is 25% of its natural extent ($\leq 25\%$). This includes the proportion of the benthic broad habitat type that has been lost (D6C5).

Benthic broad habitat type in reference state



Whole BHT in reference state
(100%)

Benthic broad habitat type in Good Environmental Status



D6C4: Extent of loss (2%)
D6C5: Extent adversely affected (23%)
D6C5: Extent not adversely affected
(i.e. in good quality/condition) (75%)

Important points on threshold values

Article 4(1) Commission Decision:

Threshold values should be :

- Consistent with Union legislation
- Set on the basis of the precautionary principle
- Make use of best available science

Article 4(4) Commission Decision:

“Threshold values established by Member States in accordance with this Decision may be periodically reviewed in the light of scientific and technical progress and amended, where necessary, in time for the reviews provided for in Article 17(2)(a) of Directive 2008/56/EC”



Thank you



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