**Factsheet for new measures**

*This measure fact sheet is the result of coordination between the UBA project Implementation of the Marine Strategy Framework Directive (MSFD) in Bulgaria – Development of Programmes of Measures under Article 13', carried out by Fresh Thoughts/Intersus, and the EC project (DG Environment) 'Technical and administrative support for the joint implementation of the Marine Strategy Framework Directive (MSFD) in Bulgaria and Romania – Phase 2', carried out by ARCADIS-Belgium.*

| **Measure characteristics**  | **Management area:*** ***Black Sea***

***Any other codes*** | **Code:*****MSFD reporting code*****No. of measure:****15** |
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| **Measure title** | Creating coherent and representative networks of marine protected areas that includes MPA's in both RO and BG, including management plans. Enhanced control of regulated activities within MPAs. |
| **Short, precise description of the measure** | The measure will be developed jointly between Bulgaria and Romania in the scope of EC project (DG Environment) “Technical and administrative support for the joint implementation of the Marine Strategy Framework Directive (MSFD) in Bulgaria and Romania – Phase 2”. The measure points towards creating a common/combined, coherent and representative network of MPA's across BG and RO EEZ's. 'Coherent' and 'Representative' refers to Article 13 of the MSFD. Coherence could mean that there should be a connection between the physical environment (winds, currents) and the habitats. 'Representative' could mean that all types of important habitats are protected. Both offshore and coastal habitats should be included. The measure aims to improve the marine environment and enhance the control of regulated activities which potentially affect MPAs ecosystems.A working group should set up the criteria for defining the network and recommend actions to complete the network. The measure required the following actions:15.1 Investigate current MPA distribution, coherence and representatively for combined BG/RO EEZ's15.2 Potentially designating new "missing" MPA's15.3 Drafting management plans (stepwise) 15.4 Control of regulated activities within or near MPAs |
| **EU measure category** | 2a |
| **Key Types of Measures** | KTM 14 Research, improvement of knowledge base reducing uncertaintyKTM 19 Measures to prevent or control the adverse impacts of recreation including anglingKTM 20 Measures to prevent or control the adverse impacts of fishing and other exploitation/removal of animal and plantsKTM 37 Measures to restore and conserve marine ecosystems, including habitats and species |
| **Environmental targets** | Biodiversity – FishRO 1.1.1 and 1.1.2 Distribution area is not adversely affected by human pressure and should be within the range of values in the last two decades and the selected species recorded over 50% attendance in the samples.1.2.1 The size of the analyzed population is not adversely affected by human pressure and should be within the range of values in the last two decades.1.3.1 The study population is not adversely affected by human pressure and should be within the range of values in the last two decades.*Biodiversity - Birds**1.1.1 Maintain or increase in sustainable limits (to be determined) the distribution of migratory species Mediterranean shearwater (Puffinus yelkouan).**1.2.1. The population abundance/size (number of migratory individuals) of Mediterranean shearwater (Puffinus yelkouan) remains within 95% of the natural abundance of migratory species in Romania and increases in the long term.**1.4.1. Preserve the habitats of Mediterranean shearwater (Puffinus yelkouan) by decreasing the pressure from human and natural factors.**1.5.1. The area of the habitats of the Mediterranean Shearwater (Puffinus yelkouan) is maintained or is increasing.**Biodiversity – Mammals**RO**1.1.1* Maintaining the distribution and frequency of species by implementing adequate management measures*1.2.1* Maintaining positive trend in the number of marine mammals populations by implementing the Action Plan for the Conservation of Dolphins in Romanian waters of the Black Sea1.3.1Diminishing natural mortality by maintaining the good condition of the environment and fishery resources. Reducing bycatch by adequate management measures.*Biodiversity – Water column habitats**RO**90th of phytoplankton biomass do not exceed the thresholds values in 10 % of the summer observations for the last 6 years.**Biodiversity – seabed habitats**RO**6.1 Physical damage, having regard to substrate characteristics**6.1.1 Type, abundance, biomass and extent of relevant biogenic substrate**• Total ban any demersal fishery (trawl, honey), including the EEZ* *• Stopping any hydraulic or coastal protection works likely to destroy or lead to clogging natural rocky bottom**• Stopping any hydraulic or coastal protection works of nature to destroy Zostera noltei grasslands or indirectly affect them; total ban on any kind of human activity in Zostera noltei meadows, except for scientific research and interventions for saving lives.**• Stopping any hydraulic or coastal protection works of nature to destroy belts Cystoseira barbata or indirectly affect them; total ban on any type of human activities Cystoseira barbata belts except scientific research and interventions to save lives.* *6.2 Condition of benthic community**6.2.1 Presence of particularly sensitive species and / or tolerant* *• Coverage with Z. noltei ≥ 50%; decapod frequency Palaemon adspersus in 1 m2 = 100%; decapod frequency Carcinus aestuarii in transects of 50 m2 ≥ 30%**• Coverage with C.barbata inside the belt ≥ 50%; frequency of Colaconema thuretii in 1m2 ≥ 80%; gastropod frequency Gibbula divaricata in 1 m2 ≥ 30%; gastropod frequency Tricolia pullus in 1 m2 ≥ 1%**• Frequency of Lithothamnion, Phyllophora or Coccotylus in transect of 50 m2 ≥ 10% ; decapod frequency Liocarcinus navigator in transect of 400 m2 ≥ 70%* *• Polychaets frequency Ophelia bicornis in samples ≥ 1%; frequency of Gastrosaccus sanctus in samples ≥ 50%**• Decapod frequency of Eriphia verrucosa in transects of 100 m2 ; densities of Halichondria panicea in the habitat ≥ 1 colonie m-2**6.2.2 Multimetric indices for assessment of benthic community condition and functionality, as well as species diversity and richness report opportunistic species / species sensitive**• Index values EEI > 0.6**• Index values EEI > 0.**• Indices values :M-AMBI ≥ 0,55; AMBI ≤ 3,3**• Indices values :M-AMBI ≥ 0,55; AMBI ≤ 3,3**• Indices values :M-AMBI ≥ 0,55; AMBI ≤ 3,3**6.2.3 Proportion of biomass or number of individuals over a certain length or size**• Specimens median size of Mytilus galloprovincialis (shell leght) ≥ 50 mm SL**• Specimens median size of Mytilus galloprovincialis (shell leght) ≥ 70 mm SL* |
| **Descriptors** | D1- BiodiversityD4 – Food webD6 – Seabed |
| **Main pressures** | Biological disturbances - selective extraction of species, including incidental non-target catches (e.g. by commercial and recreational fishing)Contamination by hazardous substances- introduction of synthetic compounds (e.g. priority substances under Directive 2000/60/EC which are relevant for the marine environment such as pesticides, antifoulants, pharmaceuticals, resulting, for example, from losses from diffuse sources, pollution by ships, atmospheric deposition and biologically active substances),- introduction of non-synthetic substances and compounds (e.g. heavy metals, hydrocarbons, resulting, for example, from pollution by ships and oil, gas and mineral exploration and exploitation, atmospheric deposition, riverine inputs),Systematic and/or international release of substancesPhysical damage- abrasion (e.g. impact on the seabed of commercial fishing, boating, anchoring),- selective extraction (e.g. exploration and exploitation of living and non-living resources on seabed and subsoil).Other physical disturbance- marine litter- underwater noise |
| **Main drivers** | The sectors/activities targeted by the measure- Recreational activities; tourism; leisure- Industry (direct discharges or dumping, sand and gravel extraction);- Maritime energy activities (offshore oil and gas prospection and operations); - Urbanization (coastal and riverine from land – municipal waste water discharge);- Agriculture;- Activities associated with the extraction of living resources (fisheries, including fishing);- Activities related to the production of seafood (aquaculture);- Sea-based mobile activities: transport/shipping, including with - small boats) |
| **Characteristics** | * Birds
* Mammals
* Fish
* Benthic habitats
* Pelagic habitats
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| **Link to other directive/legislation/policy** | Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and floraDirective 2009/147/EC of the European Parliament and of the Councl of 30 November 2009 on the conservation of wild birdsEnvironmental Impact Assessment (EIA) DirectiveCommon Fishery Policy (CFP) |
| **Necessity for transnational regulation** | No |
| **Instrument for implementation/** **Mode of implementation** | * Legal
* Technical
* Policy
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| **Spatial reference/implementation zones** | Territorial waters EEZ + beyond MS Marine waters |
| **Contribution of the measure to achieving the target**  | The measure will have a significant contribution to achieving the targets. |
| **Transboundary impact** | The implementation of the measure is not expected to have negative effects on the marine environment of neighbouring countries. |
| **Costs** | **First rough assessment:** medium € 50.000-1.000.000The following elements of costs are considered:• Research costs (research time, information and meeting cost) • Costs for assistance with voluntary agreements (staff time (preparation, follow up, meetings with neighbouring MS,travel & other costs)• Negotiation costs (planning & preparation, drafting agreement & ratification, meetings with neighbouring MS, travel & other costs)• Communication costs (advertisement, staff time, other administration costs)• Costs of stakeholder consultations (staff time (preparation, follow up), meetings with stakeholders)• Cost for control staff training (preparation, training material, giving training, follow up)• Enforcement costs (surface surveillance, joint enforcement patrols with local officer, investigations/prosecutions)**Creating coherent and representative networks of MPA’s, incl. management plans**. 1. *investigate current MPA distribution, coherence and representatively for combined BG/RO EEZ's and potentially designating new "missing" MPA's: 50.000 €*
2. *Drafting management plans: 50.000 €*

**Enhanced control of regulated activities within MPAs.**1. *Training of control staff: 1000 €*
2. *Additional staff for control :*
3. *Operational costs for control (fuel, material, boat, ...): 70.000€*

*Total one off costs within MSFD cycle (6 years): 171.000 €**Scoring:*

|  |  |
| --- | --- |
| **Score** | **total cost** |
| 1 | > € 1 million |
| 2 | € 500.000 - 1 million |
| 3 | € 200.000 - 500.000 |
| **4** | **€ 50.000 - 200.000** |
| 5 | < € 50.000 |

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| **Effectiveness** | Strong |
| **Indicator(s) to measure effectiveness** | *Should be based on existing indicators.* |
| **Socio-economic assessment** | Cost Effectiveness Assessment: cost effectiveCost Benefit Assessment: medium  |
| **Coordination** | nationalbilateral |
| **Technical feasibility** | * *Frequently applied; extensive experience / evidence of good practice*
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| **Body responsible for the measure implementation** | **Bulgaria:** Ministry of Environment and Waters (MoEW), Black Sea Basin Directorate (BSBD), Regional Inspectorates of Environment and Water - Varna and Burgas (RIEW - Varna and RIEW Burgas), NGOs, scientific institutes, universities, laboratories, specialized in field of the marine biology and ecology**Romania:** Ministry of Environment, Waters and Forests, Environment Protection Agency, NIRD “Grigore Antipa”, NIRD GeoEcoMar |
| **Financing opportunities** | National budgets, Operational Programme "Environment" 2014-2020, Bulgaria: structural funds operated by the Ministry of Agriculture and Food, respectfully National Agency of Fisheries and Aquaculture (NAFA) as European Maritime and Fisheries Fund (EMFF), EU projects (i.e Horizon 2020 ProgramO-BG CBC program)  |
| **Planning of implementation/temporal coverage** | **2018** |
| **Difficulties in implementation** | No  |
| ***Supporting information for SEA*** |
| **Additional values for protection (outside MSFD)** |  |
| **Reasonable alternatives** |  |