Factsheet for new measures under Article 13 of Marine Strategy Framework Directive 2008/56/EO

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***	**Code:** ***BLKBG*** **№ of measure: 11**
Measure title	**Enforced control of turbot gillnets**	
Short, precise description of the measure	This measure is developed as common (coordinated) measure with 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". There is an existing technical measure "Increasing the selectivity of fishing gear (minimum mesh size of bottom gillnets used to catch turbot 400 mm)" included in Programme for Maritime Affairs and Fisheries 2014 - 2020. This new measures aims to improve of the control functions of the competent authorities for control of requirements established by Regulation 1380/2013 for turbot gillnets used by the fishery sector (material, mesh size, and thickness). Reference to "European Union proposal for A GFCM Recommendation" from 28 May 2015. The measure aims improving the turbot stock and reducing accidental by-catch (non-targeted fish and marine mammals) by strengthening the control mechanism on the turbot fishing techniques/tools.	
EU measure category	*Categorisation of the measure in accordance with the "PoM Recommendations":* **2a**	
Key Types of Measures	*KTMs as defined in the „PoM Recommendations". Measures can be categorised in one or multiple KTMs.* **KTM 35 Measures to reduce biological disturbances in the marine environment from the extraction of species, including incidental non-target catches** KTM 37 Measures to restore and conserve marine ecosystems, including habitats and species	

	Other relevant KTM under Directive WFD 2000/60/EC: KTM 20 Measures to prevent or control the adverse impacts of fishing and other exploitation/removal of animal and plants
Environmental targets	*Categorisation of the measures in accordance with the nationally defined operational environmental objectives.* **PRESSURE TARGETS** **3.1.1 Fishing Mortality (F) by reduced fishing effort are listed below referring to the concerned species:** • Reducing in fishing effort to F <= FMSY = 0.15 (turbot) **3.1.2. Catch/biomass ratio index – maintain the threshold value of catch/biomass ratio less than:** • Catch-biomass ratio <= 0.033 (turbot) **STATE TARGETS** **3.2.1. Spawning stock biomass (SSB**) - increasing the SSB at regional level at the level of Black Sea region for whiting (Merlangius merlangus euxinus), **turbot (Psetta maxima**), horse mackerel (Trachurus mediterraneus ponticus), anchovy (Engraulis encrasicolus), dogfish (Squalus acanthias), red mullet (Mullus barbatus ponticus) (thousand tons). **3.2.2. Biomass indexes** - increasing trend of the values of the biomass indices at national level. Levels of the index should not be lower than reference level of 1700 tons (turbot) (Species abundance (biomass) of turbot (Psetta maxima) (CPUE, kg/h)). **3.2.2 Biomass indices are listed below referring to the concerned species (Species abundance (biomass) of turbot (CPUE, kg/h))**: Recovery of the turbot stock to value of 1500-2000 tonnes at the Bulgarian littoral. **3.3.1. Proportion of fish (turbot) larger than the mean size of first sexual maturation** - The proportion of fish with length higher than the mean at sexual maturation (42 cm), and to be over the reference value of 74% (Size of individuals of turbot (Psetta maxima), cm) **3.3.1. Mean length of fish (turbot)** in the catch should not be under the reference level of 56 cm (± 10 %) (Size of individuals of turbot (Scophthalmus/Psetta maxima), cm). **3.3.3**. 95 % percentile from the observed length structure of the species (turbot) in the research surveys – 95% percentile from length structure of the population to show stable trend with mean reference value of 62 cm for turbot (Size of individuals of turbot (Psetta maxima) (cm)). **D1 – Biodiversity (marine mammals)**

	State / Impact targets: 1.1.1. Target: Preserve the existing distribution range of the three species of marine toothed whales by implementing appropriate management measures. 1.2.1 Target: Positive trend in the population abundance of the three species of marine toothed whales (Phocoena phocoena, Turciops truncatus, Delphinus delphis). 4.3.1 Target: Positive trend in the population abundance of the three species of marine toothed whales (Phocoena phocoena, Turciops truncatus, Delphinus delphis). **D 1, 4, 6 – Seabed habitats** 1.2.1 Maintain the abundance and biomass of the typical zoobenthos and phytobenthos species by preventing the deterioration of marine environment resulting from sealing, nutrient enrichment , smothering, abrasion and **extraction of living** or non-living **resources** according to the threshold values specified in the Bulgarian Art. 10 MSFD Report. 1.4.1 The decline of the range of the MSFD predominant habitat types, relevant habitats under Habitats directive and associated national biotopes listed in the Bulgarian MSFD Art. 10 report should approximate zero by 2020 by implementation of appropriate management measures on sealing by man-made structures, nutrients input, associated eutrophication and bottom hypoxia, smothering by dumping, **and seabed abrasion by dredging and extraction of marine living** and (if applicable) non-living **resources**. 1.5.1 The area of the MSFD predominant habitat types is stable or increasing and not smaller than the baseline values (Favourable Reference Area for Habitats Directive habitats), listed in the Bulgarian MSFD Article 10 Report. Indicators. 1.6.1. Maintain the condition of the typical communities of Mytilus galloprovincialis and Mytilaster lineatus within the threshold values at an unaffected region (Aladja banka): Mytilus galloprovincialis (average wet weight ≥ 20000 g/sq. m; average body length ≥ 26.5 mm); Mytilaster lineatus (average wet weight ≥ 3000 g/sq. m; average body length ≥ 9.0 mm). 1.6.1. Maintain the condition of the typical communities of Phyllophora crispa in line with the conditions in relatively unaffected reference area - the Kiten reef. Threshold values: horizontal area cover ≥ 3800 sq. cm/sq. m; average dry biomass ≥ 70 g/sq. m; average wet biomass ≥ 180 g/sq. m (Source: Table I.2.12 of the Bulgarian MSFD Art. 10 report). 1.6.3 Maintain the physico-chemical conditions of the MSFD predominant habitat types, relevant habitats under Habitats directive and associated national biotopes listed in the Bulgarian MSFD Art. 10 report in the coastal waters within the threshold values in Ordinance No. N-4 of 14/09/2012 on the characterization of surface waters Annex № 6 from Article12 (4)

	(according to the requirements of the Water Framework Directive). **6.1.1 Targets**: The area of the mediolittoral rocks and sediments, affected by human-induced change in hydrographical conditions, sealing, smothering and abrasion stays below the following threshold values (Table I.2.3 in Bulgarian MSFD Article 9 Report): Sivriburun-Kaliakra Assessment Area < 10%; Kaliakra-Galata Assessment Area - maintain the present state; Galata-Emine Assessment Area < 10 %; Emine-Sozopol Assessment Area - maintain the present state; Sozopol-Rezovo Assessment Area - maintain the present state. **6.1.1 Target**: In the MSFD predominant habitat types, relevant habitats under Habitats directive and associated national biotopes listed in the Bulgarian MSFD Art. 10 report, the pressure from abrasion from active fishing gear should decrease by 2020 below the following threshold values: Within Natura 2000 protected areas: 0 % of the habitat area affected; Outside Natura 2000 protected areas: <= 20 % of the habitat area. (details on defined targets can find here: http://cdr.eionet.europa.eu/bg/eu/msfd_mp/msfd4text/envvibp8w/BLKBG_D0146_SeabedHabitats.pdf).
Descriptors	*Categorisation of the measures to the descriptors in lined with Annex 1 MSFD. The descriptors are identified by their short form:* **D3 – State of commercial fish and shellfish stocks** D1- Biodiversity (marine mammals) D6 – Seabed
Main pressures	*Using the analysis carried out in 2012 as a basis, categorisation of the measures in accordance with the pressures defined in Annex 3 MSFD, Table 2:* **Biological disturbances:** • selective extraction of species, including incidental non-target catches (e.g. by commercial and recreational fishing). **Physical damage** • abrasion (e.g. impact on the seabed of commercial fishing, boating, anchoring)
Main drivers	*The sectors/activities targeted by the measure* Activities extracting living resources (fisheries including recreational, maerl, seaweed)
Characteristics	*Using the analysis carried out in 2012 as a basis, categorisation of the measures in accordance with the characteristics defined in the "PoM Recommendations":*

	- Fish - Marine mammals - Benthic habitats
Link to other directive/legislation/ policy	*Aligning objectives with other legal commitments* Convention on Biological Diversity Convention for the Protection of the Black sea against pollution andrelevant protocols to it Strategic Action Plan for the Environmental Protection and Rehabilitation of the Black Sea (2009) Habitat Directive (Directive 92/43/EEC) Directive 2014/89/EU of the European Parliament and of the Council of 23 July 2014 establishing a framework for maritime spatial planning Agreement on the Conservation of Cetaceans in the Black Sea, Mediterranean Sea and Contiguous Atlantic Area(ACCOBAMS) Regulation (EU) No 1380/2013 of the European Parliament and the Council of 11 December 2013 on the Common Fisheries Policy. Council Regulation (EC) No 199/2008 of 25 February 2008 concerning the establishment of a Community framework for the collection, management and use of data in the fisheries sector and support for scientific advice regarding the Common Fisheries Policy Council Regulation (EC) No 1198/2006 of 27 July 2006 on the European Fisheries Fund **National legislation**: Fisheries and Aquaculture Act Environmental Protection Act Biological Diversity Act Protected Areas Act
Necessity for transnational regulation	*Information as regarding the necessity for regulations at EU, regional and international level to achieve MSFD environmental objectives.* **Yes**
Mode of implementation	*Stating the implementation process in line with the „PoM Recommendations"; multiple options possible:* • Policy driven
Implementation zones	*i.e. the spatial impact of the measure: MS land/FW, WFD TW, WFD CW, Territorial waters, EEZ, CS (beyond EEZ), Beyond MS waters* Coastal waters (WFD CW*)*, Territorial waters and Exclusive Economic Zone (EEZ) of Republic of Bulgaria

Contribution of the measure to achieving the target	*– using technical information* This measure will contribute to achieving Maximum Sustainable Yield (MSY) and long-term sustainable management of turbot stocks. In a long term period, the measure is expected to have a beneficial effect by restoring biodiversity in the marine waters of the Republic of Bulgaria and Romania, especially of gradual increasing stocks of commercial fish species and a restoration of the national seabed habitats. The measure will have direct contribution for achieving of environmental targets under Descriptror 3 and Descriptros 1,4,6 (non – commercial fish and seabed habitats). The measure is expected to have **high (strong) contribution** for achieving these environmental targets.
Transboundary impact	*Information on the impact of the measures on transboundary neighbours* The implementation of the measure is not expected to have negative effects on the marine environment of other Black sea countries. The measure will have a positive effect on increasing the turbot stocks in the long term aspect.
Costs	*Costs for the implementation* **First rough assessment: medium (50.000 – 200.000) €** 1. Costs for additional staff for control and training; 2. Operational costs for maintenance of vessels for inspections (fuel and repairs) **Total one off costs within MSFD cycle (6 years): < 200.000 €**
Effectiveness	*Effectiveness of the measure in reaching targets (either qualitative description, or according to indicators: indicators for environmental targets and for GES, proposal for statistical indicators in support of Art. 18 interim reports* The measure is directly linked to the achievement of defined environmental targets for GES under 3 (State of commercial fish and shellfish stocks), Descriptors 1 (Biodiversity – marine mammals) and 6 (Sea - floor integrity). The implementation of this measure will contribute to decreasing of commercial fishing pressure on Black sea fish stocks, conservation / gradual restoration of seabed habitats affected by trawling in medium and long term period. The measure is expected to have **high (strong) effectiveness** for achieving of these targets.
Indicator(s) to	*Should be based on existing indicators.*

measure effectiveness	1. Number of meetings (at national and bilateral level) to discuss national and bilateral actions for enhance the control for compliance with the legislative requirements for turbot catch and decisions taken. 2. Number of signed bilateral agreements for the implementation of decisions taken. 3. Reducing of the amount of incidental non-targeted bycatch. 4. Number inspected fishing vessels per year in terms of compliance to the requirements for turbot catch; 5. Number of fines per year due to non-compliance with the legislative requirements.
Socio-economic assessment	***Cost Effectiveness Assessment*: Cost effective** ***Cost Benefit Assessment*: High** **The measure** is expected **to have high effectiveness** for achieving of overall MSFD objectives. At the same time, public costs for the implementation of the measure are not high. A quantitative assessment of cost effectiveness of this measure cannot be made, because information on the contribution to achieve the targets does not exist. Additional socio-economic benefits of this measure: - improvement of abundance (number) of turbot; - indirect improvement of provided ecosystem services.
Coordination level	*Selection of the governance level that will coordinate the implementation of the measures, i.e. Local, Sub-national, National, Bilateral, Sub-regional, Regional, EU level, International* at local level at national level at bilateral level with Romania
Technical feasibility	*Options:* • Frequently applied; extensive experience / evidence of good practice
Body responsible for the measure implementation	Ministry of Agriculture and Food, National Agency for Fisheries and Aquaculture (NAFA).
Financing opportunities	*Including EU-cofinancing* Public funds; EU funds (National Programme for Maritime Affairs and Fisheries (2014-2020) under European Maritime and Fisheries Fund (EMFF)

Temporal coverage	**Starting: 2017**
Difficulties in implementation	*Provide information on the potential challenges that could likely faced in implementation.*