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*** **No. of measure: 7**
Measure title	Stimulation of environmental friendly practices for fishing vessels under 10 m length and not using towed gear	
Short, precise description of the measure **Кратко описание на мярката (съдържание) и конкретни стъпки/етапи, които следва да се предприемат за ефективно изпълнение на мярката**	This measure is developed as 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". So-called small-scale fishing by fishing vessels below 10 meters is the main part of the Bulgarian fishing fleet (92%). It is the main pressure related to fisheries in the Bulgarian sector of the Black Sea. The measure aims to encourage the development of small-scale coastal fishing, thus promote the use of technological innovations (i.e. more selective fishing techniques) that do not increase fishing effort. The national agencies for fisheries and aquaculture of both countries should facilitate or co-initiate with the fisheries research institutes, including fishermen for efficient implementation of the measure. Regulation (EC) № 1198/2006 of the European Parliament and of the Council of 27 July 2006 on the European Fisheries Fund. The measure contains the following steps:1) Development / introduction of mechanism for financial stimulation of fishery sector for introduction of eco-friendly equipments and practices for fishing vessels under 10 m length. 2) Preparation of technical guidelines for introduction of best available practices. 3) Information meetings with fishermen and dissemination of information materials as leaflets, brochures, etc.	
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** **<u>Other relevant KTM under Directive WFD 2000/60/EC:</u>** 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.* **D 1,4,6 – Seabed habitats** **OPERATIONAL TARGETS** • Target on the extraction of living resources – Ban non–precautionary fishing technologies (Black Sea Strategic Action Plan, Target 5); • Target on the extraction of living resources – consider the designation of marine protected areas with a ban on bottom trawling; **D3 – State of commercial fish and shellfish stocks** **Pressure targets** **3.1.1 Fishing Mortality (F) by reduced fishing effort are listed below referring to the concerned species:** • Reducing fishing effort to F<= FMSY =0.4 (whiting) • Reducing in fishing effort to F <= FMSY = 0.15 (turbot) • Reducing fishing effort in the wintering areas (horse mackerel) • Reducing fishing effort to F<= FMSY =0.54 (anchovy) • Reducing fishing effort to F<= FMSY =0.18 (dogfish) • Reducing fishing effort to F<= FMSY =0.46 (red mullet) **3.1.2. Catch/biomass ratio index – maintain the threshold value of catch/biomass ratio less than:** • Catch-biomass ratio <= 0.082 (sprat) • Catch-biomass ratio <= 0.033 (turbot) **State targets** **3.2.1. Spawning stock biomass of sprat** - STECF EWG 13-12 (Sampson et al., 2013) does not offer reference points as regards SSB for the sprat stock but according to the results from the regional assessment SSB varied between 200 000 and 500 000 tons. The proposed trend for this indicator is increasing of the SSB at regional level; The indicator needs additional development and will be operational at regional level toward 2018

	(Population size (spawning stock biomass - SSB) of sprat (thousand tons)). **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** - maintain increasing trend of the biomass values above the reference level of 55 thousand tons (sprat) in front of Bulgarian Black Sea coast. Basic reference state was for 2007-2011.The indicator needs additional development and will be operational at national level toward 2014 (Species abundance (biomass) of sprat (Sprattus sprattus) (CPUE, kg/h)). **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 Sprat (Sprattus sprattus) and turbot (CPUE, kg/h))**: Maintaining the sprat stock at values of approximately 60000 tonnes at the Bulgarian littoral; Recovery of the turbot stock to value of 1500-2000 tonnes at the Bulgarian littoral. **3.3.1.Proportion of fish (sprat) larger than the mean size of first sexual maturation** – The trend to sustain of the proportion at reference level of 68% (sprat).Basic condition for calculations of the limit reference points the contemporary state of the populations have been used. The indicator needs of additional development and will be operational toward 2014 (Size of individuals of sprat (Sprattus sprattus), cm) **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% from the observed length structure of the species (sprat)** in the research surveys– the indicator needs of additional development and will be fully operational at national level toward 2018. The main lack of data and knowledge is the inability to calculate this indicator before 2012, due to the differences of the length structure and methodological issues. The lack of the genetic effects on the population due to overexploitation are also obstacles (Size of individuals of sprat (Sprattus sprattus), 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).
Descriptors	*Categorisation of the measures to the descriptors in line with Annex 1 MSFD. The descriptors are identified by their short form:* **D3 – State of commercial fish and shellfish stocks** D1- Biodiversity D4 – Food webs D6 – Seabed integrity
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:* • Physical 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) • Biological disturbances as selective extraction of species, including incidental non-target catches (e.g. by commercial and recreational fishing).
Main drivers	*The sectors/activities targeted by the measure* Activities extracting living resources (fisheries including commercial and recreational on fish and shellfish). Activities extracting other living resources (seaweed and other sea food)
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 - Benthic habitats - Pelagic habitats

Link to other directive/legislation/ policy	*Aligning objectives with other legal commitments* **Descriptors 1, 4, 6** Convention on Biological Diversity Convention for the Protection of the Black sea against pollution Strategic Action Plan for the Environmental Protection and Rehabilitation of the Black Sea (2009) The Black Sea Biodiversity and Landscape Conservation Protocol to the Convention on the protection of the Black sea against pollution, 2002 (for Bulgaria in force from 20 June 2011). the EU's Common Fisheries Policy and Integrated Maritime Policy EU Blue Growth initiative Directive of maritime spatial planning (2014) Habitats Directive (Directive 92/42/EEC) Birds Directive (Directive 2009/147/EC); Water Framework Directive (Directive 2000/60/EC) SEA Directive (2001/42/EC) EIA Directive (85/337/EEC) **Descriptor 3 – State of commercial fish and shellfish stocks** **Commission Implementing Regulation (EU) 2015/1962** of 28 October 2015 amending Implementing Regulation (EC) № 1224/2009 of 20.11.2009 establishing a Community control system for ensuring compliance with the rules of the common fisheries policy **Regulation (EU) 1380/2013** of 11 December 2013 on the Common Fisheries Policy, amending Council Regulations (EC) № 1954/2003 and (EC) No 1224/2009 and repealing Council Regulations (EC) No 2371/2002 and (EC) No 639/2004 and Council Decision 2004/585/EC and its related legislations amending Regulation (EC) № 26/2004 on the Community fishing fleet register **Council Regulation (EC) № 1224/2009** of 20.11.2009 establishing a Community control system for ensuring compliance with the rules of the common fisheries policy, amending Regulations (EC) № 847/96, (EC) № 2371/2002, (EC) № 811/2004, (EC) № 768/2005, (EC) № 2115/2005, (EC) № 2166/2005, (EC) № 388/2006, (EC) № 509/2007, (EC) № 676/2007, (EC) № 1098/2007, (EC) № 1300/2008, (EC) № 1342/2008 and repealing Regulations (EEC) № 2847/93, (EC) № 1627/94 and (EC) № 1966/2006 Commission Regulation (EC) № 1799/2006 of 6 December 2006 **Regulation (EU) № 508/2014** of the European Parliament and of the Council of 15 May 2014 on the European Maritime and Fisheries Fund and repealing Council Regulations (EC) № 2328/2003, (EC) № 861/2006, (EC) No 1198/2006 and (EC) № 791/2007 and Regulation (EU) № 1255/2011 of the European Parliament and of the Council **COM Delegated Regulation (EU) 2015/531** of 24.11.2014 supplementing Regulation (EU) № 508/2014 of the European Parliament and of the

	Council by identifying the costs eligible for support from the European Maritime and Fisheries Fund in order to improve hygiene, health, safety and working conditions of fishermen, protect and restore marine biodiversity and ecosystems, mitigate climate change and increase the energy efficiency of fishing vessels Commission Regulation (EC) No 1799/2006 of 6 December 2006 amending Regulation (EC) No 26/2004 on the Community fishing fleet register **National legislation of Bulgaria:** Fishery 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.* No He
Instrument for implementation/ Mode of action	*Stating the implementation process in line with the „PoM Recommendations"; multiple options possible:* • Policy driven • Economic
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*)* and territorial waters of Republic of Bulgaria
Contribution of the measure to achieving the target	*– using technical information* In a long term period, the measure is expected to have a beneficial effect by restoring of the national pelagic and seabed habitats, respectfully increasing of biodiversity in the marine waters of the Republic of Bulgaria and Romania (Descriptors 1 and 4), especially of increasing stocks of commercial fish species. This effect and reducing anthropogenic pressure associated with the selective extraction of species, including incidental non-target bycatch will contribute to achieving the targets under Descriptor 4 - Food webs and increasing of commercial fish stocks (Descriptor 3). The measure is expected to have **medium to potentially high (strong)** contribution for achieving the environmental targets under Descriptors 1 (Biodiversity), 3 (State of commercial fish and shellfish stocks), 4 (Food web) and 6 (Sea - floor integrity).
Transboundary impact	*Information on the impact of the measures on transboundary neighbours* The measure is expected to have a beneficial effect, which would affect the marine waters of other neighbors by gradually increasing stocks of

	Black sea migratory commercial fish species.
Costs	**First rough assessment: medium (50.000 - 200.000 €)** 1) Development / introduction of mechanism for financial stimulation of fishery sector for introduction of eco-friendly equipments and practices for fishing vessels under 10 m length. 2) Preparation of technical guidelines for introduction of best available practices. 3) Information meetings with fishermen and dissemination of information materials as leaflets, brochures, etc. Total one off costs within one MSFD cycle (6 years): > 50.000 €
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* It is expected that implementation of the measure can lead to wider use of eco - friendly fishing practices used by smaller vessels which are the main part of the Bulgarian fishing fleet. Introduction of these practices has direct effect to achieve environmental targets under Descriptors 1 (Biodiversity), 3 (State of commercial fish and shellfish stocks), 4 (Food web) and 6 (Sea - floor integrity). However, as the measure contains stimulating activities (i.e. indirect effect), the introduction of environmentally friendly practices for fishing, respectively introduction and application of such techniques depends on fishermen. The measure is expected to have **medium to potentially high (strong)** effectiveness for achieving the relevant environmental targets.
Indicator(s) to measure effectiveness	*Should be based on existing indicators.* 1. Introduced mechanism for financing stimulation for using eco-friendly equipments and practices for fishing vessels under 10 m length. 2. Number of fishing vessels under 10 m length using eco-friendly equipments and practices. 3. Number of conducted information meetings per year. 4. Number of distributed brochures and materials. 3. Number of conducted tender procedures for buying and setting up of new equipments per year.
Socio-economic assessment	**Cost Effectiveness Assessment: Cost effective** **Cost Benefit Assessment: medium** **Negative side effects:** The implementation of the measure is not expected to have negative effects on the marine environment. The measure will contribute to reduce the pressure caused by fishery by

	using innovative methods and will help for more sustainable exploatation of Black sea fish stocks.
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	**Bulgaria:** 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** **End: 2021**
Difficulties in implementation	*Provide information on the potential challenges that could likely faced in implementation.* Fishermen fear on increasing (own) investment (costs) in fishery sector and loss of work places. There is a risk of low efficiency of the measure if there is not provided good information to the target group. Low interest of possible heavy administrative procedures.