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*** ***Any other codes***	**Code:** ***BLKBG*** **No. of measure: 13**
Measure title	Protection of non-breeding seabird species Yelkouan Shearwater (Puffinus yelkouan) and European shag (Phalacrocorax aristotilis) in coastal, territorial waters and EEZ of BS countries.	
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". Two main species of seabirds are subject to researches and spatial protection under this measure. They will be monitored by the monitoring program Descriptor 1,4 Seabirds of Bulgaria and Romania: - Non-breeding seabird species, Yelkouan Shearwater (*Puffinus yelkouan*). It is included in Annex I of the Bird Directive 2009/147/EO and Annex II of the Bern Convention as species of priority conservation status and defined as vulnerable („VU") according to the International Union for Conservation of Nature (IUCN) Red List 2014. - European Shag (*Phalacrocorax aristotelis*). It is included in Annex I of the Bird Directive 2009/147/EO and Annex II of the Bern Convention as species of priority conservation status. This seabird is wintering and breeding species in Bulgaria (two breeding colonies are present on the BG Black Sea coast). These two species are chosen as common indicators for both Black Sea MS Bulgaria and Romania for the purposes of MSFD, because both are monitored on the Bulgarian and Romanian Black sea coast by Bulgarian Society for the Protection of Birds (BSPB) and the Romanian Ornithological Society (SOR) as partners of BirdLife International. Also both species of marine birds: Mediterranean Shearwater (*Puffinus yelkouan*) and European Shag (*Phalacrocorax aristotelis*) are included in Annex 2 of the Protocol for the protection of biological and landscape diversity of the Black Sea to the Convention on Protection of the Black Sea Against Pollution from 14.06.2002, the list of major Black Sea species. The first species is defined as rare, and the second one as endangered. Up to now, there is no enough information on resting and feeding areas of both selected species in territorial waters and exclusive economic zone of	

	Bulgaria and Romania. The measure aims at gathering more detailed information on these areas and activities that have an effect on them (as tourism and coastal urbanization, fishery, accidental oil spills, coastal erosion, etc.) and when necessary: - change of the borders of existing protected areas and establishment of new areas in marine waters for protection of these seabird species; - change of the requirements and restrictions for providing a good conservation state of both species. **Scope of the measure:** **Phase 1:** - Researches for determination of rafting/resting and feeding areas of non-breeding seabird species Yelkouan Shearwater (Puffinus yelkouan) and European shag (Phalacrocorax aristotelis) in coastal, territorial waters and EEZ of Bulgaria and Romania - Delineation of resting and feeding areas with aim of establishment of measures for further protection - Preparation of a proposal to the Ministry of Environment and Waters for discussion and approval of designated feeding and resting areas within the researches and establishment / revision of requirements and restrictions for providing a good conservation state. **Phase 2** Approval of areas for protection of both species Mediterranean Shearwater (Puffinus yelkouan) and the European shag (Phalacrocorax aristotelis); establishment / revision of requirements and restrictions for providing a good conservation state. This measure is related to spatial protection actions under the Directive on the conservation of wild birds 2009/147/EC and the Directive on the Conservation of the habitats 92/43/EEC.
EU measure category	*Categorisation of the measure in accordance with the "PoM Recommendations":* **2a**
Key Types of Measures	*Key Types of Measures* (*KTMs) as defined in the „PoM Recommendations". Measures can be categorised in one or multiple KTMs.* **KTM 37 Measures to restore and conserve marine ecosystems, including habitats and species** **Other relevant KTM under Directive WFD 2000/60/EC:** KTM 14 - Research, improvement of knowledge base reducing uncertainty 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.* Environmental target on criterion 1.1. "Species distribution" on indicator 1.1.1: Maintain or increase in sustainable limits (to be determined) the distribution of migratory species of Mediterranean shearwater (Puffinus yelkouan), the wintering species European shag (Phalacrocorax aristotelis) and the distribution of other migratory / feeding and / or wintering species of seabirds and waterbirds. Environmental target on criterion 1.2. "Population size" indicator 1.2.1 and Criterion 4.3 "Abundance / distribution of key trophic groups / species" indicator 4.3.1: The population size (number of individuals / breeding pairs) of European shag (Phalacrocorax aristotelis) remains within 95% of the natural abundance of the species in Bulgaria in a long - term period. The population size (number of migratory individuals / number of migratory pairs) of Mediterranean shearwater (Puffinus yelkouan) remains within 95% of the natural abundance of migratory species in Bulgaria and increases in the long term. Environmental target on criterion 1.3 "Condition of the population", indicator 1.3.1: The number of registered cases of injured and dead birds as a result of the negative impact of human activities decreases. Environmental target on criterion 1.4 "Distribution of habitat" indicator 1.4.1: Preserve the habitats of the Mediterranean Shearwater (Puffinus yelkouan), European shag (Phalacrocorax aristotelis) and other seabirds and waterbirds and / or increasing their extent in sustainable limits (to be determined) by reducing the negative impact of natural and human factors. Environmental target on criterion 1.5 "Size of habitat", indicator 1.5.1: The area of the habitats of the Mediterranean Shearwater (Puffinus yelkouan), and the European shag (Phalacrocorax aristotelis) is maintained or is increasing. Environmental targets on criterion 1.6 "The condition of the habitat" and criterion 4.1. "Productivity (production per unit biomass) of key species or trophic groups" will be defined for the second cycle of implementation of the MSFD after further data.
Descriptors	*Categorisation of the measures to the descriptors in lined with Annex 1 MSFD. The descriptors are identified by their short form:* D1- Biodiversity D4 – Food webs
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:* **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), - introduction of radionuclides **Biological disturbance** - 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* - Energy production/marine hydrocarbon (oil and gas) extraction; - Waste disposal; - Recreational activities; - Industry, 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	*Using the analysis carried out in 2012 as a basis, categorisation of the measures in accordance with the characteristics defined in the "PoM Recommendations":* - Marine and coastal birds
Link to other directive/legislation/ policy	*Aligning objectives with other legal commitments* **International, European and regional legislation**: 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). Directive of maritime spatial planning (2014) Water Framework Directive 2000/60/EC Habitat Directive (Directive 92/43/EEC) Birds Directive (Directive 2009/147/EC) **National legislation**: 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
Mode of implementation	*Stating the implementation process in line with the „PoM Recommendations"; multiple options possible:* • Legislative • Technical • Political
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, exclusive economic zone (EEZ) of Republic of Bulgaria
Contribution of the measure to achieving the target	– *using technical information* The implementation of the measure will have direct contribution for achieving the environmental targets under Descriptor 1 – Biodiversity related to seabirds by limiting the negative human impact on both species expressed by damage to their habitats, disturbance, injury even death (e.g. oil spills, accidental bycatch, shooting, etc.). In respect of Descriptor 4 (Food webs) there are not yet defined environmental targets at this stage, but certainly the measure will contribute to this Descriptor. If this measure be implemented, it will have **high contribution** to achieve the reported national targets under Descriptor 1- Biodiversity (seabirds). The national targets are coordinated with Romania
Transboundary impact	*Information on the impact of the measures on transboundary neighbours* Information on the impact of the measures on transboundary neighbours The implementation of the measure is not expected to have negative transboundary impact on the waters of other countries shared the Black sea marine region. The measure will have positive effect on decreasing of total amount of waste entering into the Black sea marine environment.
Costs	*costs for the implementation* **First rough assessment (phase I): medium (200.000 – 500.000 €)** **Phase 1**: Costs for research project (minimum 2 years) and preparation of proposals for approval of areas for protection of both seabird species, establishment / revision of requirements and restrictions to provide areas with aim of establishment of measures for further protection. **Phase 2:** Administrative costs for approval of areas for protection of both seabird species, establishment / revision of requirements and restrictions to provide areas with aim of establishment of measures for further protection.

	Total one off costs within MSFD cycle (6 years): preparation (research) minimum 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* Up to now, there is no enough information on resting and feeding areas of both selected species in territorial waters and exclusive economic zone of Bulgaria and Romania. The measure will have direct effect to provide a good conservation state and balanced development of the populations of both species Mediterranean Shearwater (Puffinus yelkouan) and the European shag (Phalacrocorax aristotelis) and to achieve the environmental targets under Descriptor 1 - Biodiversity (seabirds). Effectiveness of this measure could be measured as **potentially high (strong)** as it depends of respecting the spatial and temporal requirements / restrictions to be set out within those areas.
Indicator(s) to measure effectiveness	*Should be based on existing indicators.* 1. Number of conducted researches and establishment of feeding and resting areas of both seabird as non-breeding seabird species Yelkouan Shearwater (Puffinus yelkouan) and European shag (Phalacrocorax aristotilis). 2. Number of established / revised birds' protected areas. 3. Increasing of colonies of non-breeding seabird species Yelkouan Shearwater (Puffinus yelkouan) (increasing the number of individuals (especially the adolescent ones) during the annual monitoring in the period April – June. 4. Increasing of colonies of species European shag(Phalacrocorax aristotilis).
Socio-economic assessment	***Cost Effectiveness Assessment:*** **Moderate effective** ***Cost Benefit Assessment:*** **Medium** ***Negative side effects:*** The implementation of the measure is not expected to have negative effects on the marine environment, but could have a negative effect on private business by limiting investment intentions in this area (construction of new or expansion of the area of mussel farms, fish farms or other intentions for growing aquaculture) as well as on tourism (construction of resort complexes, recreational land and sea tourism, recreational sports, etc.). Also providing areas that can be observed birds in their natural environment will have a positive impact on the tourism sector.

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 national level • Bilateral coordination with Romania • Regional measure in the scope of the Black sea Commission
Technical feasibility	*Options:* • Applied; limited experience / uncertainties • Приложим, ограничен опит / неясноти
Body responsible for the measure implementation	**Bulgaria:** Ministry of Environment and Waters (MoEW), Black Sea Basin Directorate (BSBD), Regional Inspectorates of Environment and Waters – Varna and Burgas (RIEW – Varna and RIEW Burgas), Bulgarian Society of Protection of Birds (BSPB) **Romania:** Ministry of Environment, Waters and Forests NGOs: Romanian Ornithological Society, Mare Nostrum
Financing opportunities	National budget, Environmental Protection Fund или Global Environment Fund (GEF), EU projects (i.e. RO-BG CBC Program, Horizon 2020 Program, Program LIFE)
Temporal coverage	**Starting time: 2017**
Difficulties in implementation	*Provide information on the potential challenges that could likely faced in implementation.* Potential difficulties related to the implementation of the measure could be possible counteractions by businesses / investors.