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| **MONITORING FACT SHEET** | |  |
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| **MONITORING FACT SHEET TEMPLATE** | | **This column is for information only and should be removed when the sheet has been filled in.** |
| **Title: Non-commercial fish (Descriptor 1, 4)** | |  |
| **1. General** | | **Reporting sheet questions (ref. DIKE\_9-2014-03 for additional guidance on questions) and comments on template suggestions presented below** |
| 1.1 Subject area | *What is monitored – programme ID (BLKXX-DY)*  Programme name: Biodiversity – fish  Programme ID: BLKBG- D1, 4 Fish | Q4: Programme name (4d); Programme ID (exchange XX with BG or RO; exchange Y with relevant descriptor no.) (4e) |
| 1.2 Definition/Description | *Definition of items monitored/description of general approach*  Monitoring of fish species is conducted during the 2012-2014 monitoring programmes. The monitoring programme is focused primarily on the state of the fish population and the impact from human activities, but does not adequately address the pressure-impact relationship within the [DSPIR](http://root-devel.ew.eea.europa.eu/ia2dec/knowledge_base/Frameworks/doc101182) framework. The state and impact are measured by using relevant multi-metric indexes: species abundance index Shannon (H‘), (Shannon and Weaver, 1963); Fisher's alpha; Fisher et al. (1943); Gini-Simpson (1- λ) index; taxonomic diversity index of Warwick and Clarke (1995); biological health index (BHI); SACFOR expert assessment system and the 95 % percentile of the fish length distribution observed in research vessel surveys.Monitoring on the pressure from human activities from non-commercial fish populations should be developed in the future monitoring programmes. | Q4: Programme description (4f). Free text or URL link. What is monitored by the programme (state/impact, pressure, activities, measures) and why. How does it adapt to new and emerging environmental problems |
| 1.3 Competent authority/ies | *Which authorities are responsible (links to www)*  Ministry of the Environment and Waters  Web: <http://www.moew.government.bg/>  Black Sea Basin Directorate  Web: <http://www.bsbd.org/> | Q4: Responsible Competent Authority (4a)  If more than one – put contact to the EU Commission |
| 1.4 Monitoring institutions | *Which institutions carry out the monitoring etc. (links to www)*  Institute of Oceanology – Bulgarian Academy of Sciences  Web: <http://www.io-bas.bg/> | Q4: Responsible institutions; relationship to Competent Authority (4b) +(4c) |
| 1.5 Additional information | *Where can additional information be found (e.g. via a web link)*  3a – Black Sea Commission (BSC)  Web: <http://www.blacksea-commission.org/>  3b – Black Sea transboundary diagnostic analysis (TDA)  Web: <http://www.blacksea-commission.org/_tda2008.asp>  *Regarding regional coordination remember this project and other relevant joined projects* | Q3: Additional information on: Regional coordination; consideration of transboundary impacts; ability of programme to identify major changes in environment and new and emerging issues; (3a-c) |
| 2. Monitoring requirements and purpose | | `` |
| 2.1 Necessity | *Listed below are direct references to the monitoring requirements – EU directives, Black Sea Commission agreements, national plans, research programme requirements, other.*  *Delete/add rows* | The purpose of this section is to give an overview of existing monitoring requirements related to this programme and to help coordinate already existing monitoring  Q8a: Existing monitoring programmes deliver data to other directives etc. This part of the monitoring fact sheet helps to give an overview of how and where the specific monitoring is used for many purposes/requirements (8a).  State where relevant monitoring is already carried out (or should be/is required) |
| MSFD  Article 11  Article 8  Annexes III | *Comments*  On the basis of the initial assessment made pursuant to Article 8(1), Member States shall establish and implement coordinated monitoring programmes for the ongoing assessment of the environmental status of their marine waters on the basis of the indicative lists of elements set out in Annex III and the list set out in Annex V, and by reference to the environmental targets established pursuant to Article 10.  The following characteristics should be monitored:  **Annex III, Table 1:**  —information on the structure of fish populations, including the abundance, distribution and age/size structure of the populations,  The following pressure on non-commercial fish populations should be monitored under monitoring programme D1, 4 - Non-commercial fish:  —selective extraction of species, including incidental non-target catches (e.g. by commercial and recreational fishing). | Which parts of MSFD requirements does the programme fulfil? Refer to the articles and annexes of the Directive that require that monitoring is carried out. |
| Habitat Directive  Article 11 | *Comments*  Member States shall undertake surveillance of the conservation status of the natural habitats and species referred to in Article 11 with particular regard to priority natural habitat types and priority species. Consideration of nutrient inputs in the assessment of habitat impairments. | Which parts of HD requirements does the programme fulfil? |
| Black Sea Commission  Black Sea SAP | *Comments*  **Black Sea Strategic Action Plan (BS-SAP)**  **Article XV** - The Contracting Parties shall cooperate in conducting scientific research aimed at protecting and preserving the marine environment of the Black Sea and shall undertake, where appropriate, joint programmes of scientific research, and exchange relevant scientific data and information  Web:  **BSIMAP** - Black Sea Integrated Monitoring and Assessment Programme  Web: <http://www.blacksea-commission.org/_bsimap_description.asp> | Does the programme fulfil any formal obligations to the BSC? |
| Other plans and/or programmes | *Comments* | Does the programme fulfil any formal obligations to other plans and programmes? |
| 2.2 GES criteria | *Li*st *relevant GES Criteria and characteristics [indicators]* (see *Commission Decision of 1. September 2010)*  Species level  1.1. Species distribution  — Distributional range (1.1.1)  — Distributional pattern within the latter, where appropriate (1.1.2)  1.2. Population size  — Population abundance and/or biomass, as appropriate (1.2.1)  1.3. Population condition  — Population demographic characteristics (e.g. body size or age class structure, sex ratio, fecundity rates, survival/mortality rates) (1.3.1)  — Population genetic structure, where appropriate (1.3.2).  Habitat level  1.4. Habitat distribution  — Distributional range (1.4.1)  — Distributional pattern (1.4.2)  1.5. Habitat extent  — Habitat area (1.5.1)  — Habitat volume, where relevant (1.5.2)  1.6. Habitat condition  — Condition of the typical species and communities (1.6.1)  — Relative abundance and/or biomass, as appropriate (1.6.2)  — Physical, hydrological and chemical conditions (1.6.3).  Ecosystem level  1.7. Ecosystem structure  — Composition and relative proportions of ecosystem components (habitats and species) (1.7.1).  4.1. Productivity (production per unit biomass) of key species or trophic groups  — Performance of key predator species using their production per unit biomass (productivity) (4.1.1).  4.2. Proportion of selected species at the top of food webs  — Large fish (by weight) (4.2.1).  4.3. Abundance/distribution of key trophic groups/species  — Abundance trends of functionally important selected groups/species (4.3.1). | Which GES criteria are addressed/monitored by the programme (5a). Select the relevant criteria. Which characteristics [indicators] are addressed/monitored (5b) |
| 2.3 Features, pressures and impacts | *List relevant features and pressures from MSFD Annex III*  Functional groups – fish  Pressures – underwater noise, marine litter, selective extraction of species, including incidental non-target catches (e.g. by commercial and recreational fishing)  Impacts  *Pressures Refer to section 6 regarding gaps and plans* | Which elements of Annex III (ecosystem components, pressures/impacts) are addressed/monitored by the programme (5c) |
| 2.4 GES | *Assessment of GES (GES as defined in the article 9 reporting)*  Overall GES definition – the non-commercial fish species are characterised by stable or increasing distribution, population size and relative abundance/biomass among the key trophic groups in the marine ecosystem, without giving rise to positive feedback and suppression in the related trophic levels.  GES definition on Criterion 1.1. Species distribution – of high diversity of the non-commercial fish species in their natural distribution range, indicated by the threshold values determined in the Bulgarian Art. 9 GES report, Table I.1.1.1.  GES definition on Criterion 1.2. Population size – the population abundance of the non-commercial fish species is indicative of high species abundance of the particular species in the sampling stations.  GES definition on Criterion 1.6. Habitat condition – GES for the typical species and communities is indicated by high relative abundance and /or biomass as appropriate, with a stable and/or increasing trend.  GES definition on Criterion 4.3. Abundance/distribution of key trophic groups/species – The productivity of the key predator species is stable or increasing and does not trigger positive feedback loop leading to decline of the populations in the related trophic levels. A significant proportion of the non-commercial fish species is larger than the target weight at first sexual maturation, measured during the fish surveys. The abundance trends in the functionally important species are stable or increasing without triggering positive feedback loop, leading to decline of the populations in the related trophic levels.  Describe how the programme:   1. addresses assessment needs for the relevant Descriptor(s) and targets – the monitoring programme addresses the assessment needs by stating a GES definition in coherence with S. M. A. R. T. (Specific, Measurable, Achievable, Realistic, Timely) targets and, if necessary, by updating the GES definitions and targets to be able to provide assessment of the current environmental status and determine the distance from GES. The monitoring programme also defines targets addressing the pressure from human activities, state and impact of the marine environment. 2. meets the needs of providing data/ information to support assessment of the Descriptor (or particular biodiversity component programme for D1, 4, 6) – the existing monitoring programme does not provide data/information for assessment of the Descriptor 1, 4. Specific plans for assessment of GES and targets are designed to make the programme adequate in providing data and information for assessment of Descriptor 1, 4, 6; 3. contributes to determining distance from GES and trends in status – the existing monitoring programme does not fully meet the requirements of the MSFD and does not contribute in determining the distance from GES and trends in status. By updating the GES definitions, threshold or trend-based targets, and implementing plans for data and information on GES and targets, the programme will be able to provide information on the distance from GES and trends in status; 4. addresses natural and climatic variability and distinguish this from the effects of anthropogenic pressures – the existing monitoring programme does not provide information to distinguish the effect of natural and climatic variability from the anthropogenic pressures. The problem should be addressed in the Plans for information on GES. 5. responds to risks of not achieving GES – the minimum requirement is to make the existing monitoring programme adequate to the requirements of the MSFD (in accordance with the Plans for information on GES and targets, listed below).The monitoring programme responds to the risk of not achieving GES by updating GES definition and targets to be able to detect if GES is achieved. GES targets should be reviewed and updated annually to reflect new information on GES, acquired from the yearly monitoring programme of the Bulgarian marine waters. | State the definition of GES reported for the relevant descriptor and describe how the programme: addresses assessment needs for the relevant descriptor; contributes to determining distance from GES and trends in status; addresses natural and climatic variability; responds to risk of not achieving GES (5f) |
| 2.5 Environmental targets  MSFD  HD  BD  WFD | *Relevant MSFD targets defined in the article 10 reporting*  *State relevant targets from other obligations (see section 2.1) that are addressed by the monitoring*  **Pressure targets**  **State targets**  1.1.1 Targets. Distribution of Thornback ray (*Raja clavata*) and other demersal fish species is not significantly affected by human activities: the geographic and depth distribution of sensitive fish should meet individual indicator targets in a statistically significant proportion of species monitored.  4.3.1 Targets. Abundance of the Thornback ray (*Raja clavata*) is not negatively affected by human activities.  6.2.2 Targets. Coastal assessment area: Population abundance of non-commercial fish species is above the following threshold values, indicative of GES:   * Total number of species (S) > 10 * Shannon index H' (log2) > 1,454 * Fisher's alpha (a) > 0,486 * Gini-Simpson (1- a) > 0,514 * Taxonomic distinctness (Δ\*) > 79,58   6.2.2 Targets. Shelf assessment area: Population abundance of non-commercial fish species is above the following threshold values, indicative of GES:   * Total number of species (S) > 7.204 * Shannon index H'(log2) > 0.896 * Fisher's alpha (a) > 0.694 * Gini-Simpson (1- a) > 0.306 * Taxonomic distinctness (Δ\*) => 89.18   Impact targets  Reduction of the by-catch mortality  Operational targets  Consider the necessity of creation of new and/or expansion of existing protected areas, including transboundary areas in consultation with the relevant Black Sea countries with particular attention to marine protected areas. Establish or extend these areas where necessary (Black Sea Strategic Action Plan target 14).  Monitor and facilitate the progress in the implementation of nationally developed management plans of the protected areas (Black Sea Strategic Action Plan target 21)  Support coordinated scientific studies, increase resources to marine science and improve capacity particularly through targeted training programmes supporting scientific projects/programmes (Black Sea Strategic Action Plan target 25). | Q6: State the targets addressed by the monitoring.  Which reported targets are addressed (6a)?  Will the programme provide adequate data to assess progress towards achievement of target and will the collected data enable updating of targets (6b-c)?  Explain how the programme will contribute to the assessment of progress with targets (6d)  Add targets relevant to other directives and commitments |
| BSC | (1) Adopt and implement a Regional Agreement for fisheries and conservation of living resources of the Black Sea.  (11) Finalise, adopt and implement the regional SAP for Black Sea Biodiversity and undertake 5 yearly regional update of the list of conservation status of threatened coastal and marine species as well as list of critical habitats for these species.  (12) All six BS countries adopt and implement a regional Conservation Plan for Black Sea endangered species and develop national action plans.  (14) Consider the necessity of creation of new and/or expansion of existing protected areas, including transboundary areas in consultation with the relevant Black Sea countries with particular attention to marine protected areas. Establish or extend these areas where necessary.  (15) Further recognise and implement integrated coastal zone management principles.  (16) Develop and disseminate information, training and education materials on ICZM in regional languages, referring to coastal and marine biodiversity conservation.  (17) Regionally converge on Environmental Impact Assessment and Strategic Environmental Assessment procedures.  (21) Monitor and facilitate the progress in the implementation of nationally developed management plans of the protected areas.  (22) Develop an inventory, classification and a mapping system for BS habitats.  (25) Support coordinated scientific studies, increase resources to marine science and improve capacity particularly through targeted training programmes supporting scientific projects/programmes. |  |
| 2.6 Spatial allocation | *Table of where monitoring is required*   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | EEZ | 12-nm zone | Coastal waters | Transitional waters | | MSFD | x | x | x | - | | HD | x | x | x | x | | WFD | - | - | - | x | | BSC | x | x | x | - | | Q4: Geographical coverage by reference to the 4 zones in table 1 of the "concept paper" (4i) |
| **3 Monitoring concept** | |  |
| 3.1 General description of relevant subprogrammes in monitoring programme | *List subprogrammes monitored under this programme (only general description)*  Highly mobile species - Fish (non-commercial)  Activities  Measures | Use list In document DIKE\_9-2014-03\_Art11ReportingPackage.doc and BS-CBE Jan\_MFS Pgm Subpgm\_list\_rev.xls for subprogramme names. New ones may be added if necessary. Use BS-CBE Jan\_MFS Pgm Subpgm\_list\_rev.xls to see/check parameters measured in subprogramme |
| 3.2 Description of monitoring network | *Description + maps (describing the spatial resolution of the entire prog*  Figure 1 Benthic and pelagic fish monitoring network in 2012 | Spatial resolution (density op sampling). Show sampling network on map. Describe the rationale for the geographical scope of the programme ("4j") |
| 3.3 Threats, activities and measures | *Which threats are identified*  In marine waters, mortality due to bycatch levels in commercial fisheries represents the principle threat. Another threat is bottom hypoxia, resulting from the eutrophication and related algal blooms.  *Which human activities will be measured by the programme*  Fisheries incl. recreational fishing (fish and shellfish)  Industry (discharges, emissions)  Agriculture and forestry (run-off, emissions)  Urban (municipal waste water discharge)  Port operations  Marine research, survey and educational activities  Shipping  Solid waste disposal incl. dredge material | Q7: Relevant activities (7a); |
|  | Fisheries incl. recreational fishing (fish and shellfish) – there are monitoring studies of the pressure from bottom trawling on the seabed habitats  Industry (discharges, emissions) – the monitoring on industrial land-based industrial point sources of pollution is already conducted by the Black Sea Basin Directorate.  Agriculture and forestry (run-off, emissions) – monitoring on the river discharges of nutrients and contaminants from the Bulgarian Black Sea catchment is already conducted by the by the Black Sea Basin Directorate.  Urban (municipal waste water discharge) - the monitoring on urban land-based industrial point sources of pollution is already conducted by the Black Sea Basin Directorate.  Marine research, survey and educational activities – these include the monitoring activities conducted by the Institute of Oceanology in fulfilment with the requirements of the MSFD  Shipping – pressure from shipping activities be developed within the monitoring programmes under D8 (pollution in seawater) and D11 (underwater noise) | describe the nature of activity or pressure (7b); |
|  | Ban on trawling  Prohibit and regulate the discharge of pollutants and nutrients from the industrial and urban wastewater treatment plants by the Black Sea Basin Directorate | relevant existing measures (if any) (7c |
|  | *Which measures will be measured by the programme*  Commercial fisheries ships are equipped with VMS (Vessel monitoring systems) to track their positions  Black Sea Basin Directorate is monitoring the industrial and urban points sources of pollution | how are existing measures monitored (7d); |
| 3.4 Data management | *How and where are data managed? How and where can data be accessed? (General description – programme level)* | Q10 (+Q3): Access to data; use rights; INSPIRE standards; when will data become available; updates when; how will data be made available to the EEA |
| **4. Assessment** | |  |
| 4.1 Assessments | *Existing assessments*  *Provide information about or URL links to existing assessments (eg. Initial Assessment)* | This is for information purpose only. Where can stakeholders etc find existing assessments on issues relevant to the programme |
| 4.2 Assessment of GES | *Will assessment of GES be carried out by the programme* | Q5: Will the programme enable periodic assessment of environmental status and distance to and progress towards GES (5d). Describe how and refer to section 6 to describe if programme is not considered fully adequate. |
| **5. Literature** | |  |
|  | *List of relevant literature*  Zampoukas, N., H. Piha, 2011. Review of Methodological Standards Related to the Marine Strategy Framework Directive Criteria on Good Environmental Status. Publications Office of the European Union, 53 pp. Web: < <http://publications.jrc.ec.europa.eu/repository/handle/111111111/16069>>;  Zampoukas, N., H. Piha, E. Bigagli, N. Hoepffner, G. Hanke, A. Cardoso, 2012. Monitoring for the Marine Strategy Framework Directive: Requirements and Options. Publications Office of the European Union, 42 pp. Web: <http://publications.jrc.ec.europa.eu/repository/handle/111111111/23169> |  |
| **6. Activities required to implement the concept** | |  |
| 6.1 Changes to the current monitoring programme | *Necessary changes and recommendations*  *Describe necessary changes for the programme to cover the requirements of MSFD. Description in general terms.* | Which changes are necessary to the current/existing monitoring programme to secure adequacy with regards to MSFD (eg. changes in monitoring network)  Q7: Will the programme provide necessary data and information to enable identification of relevant activities/pressures that are causing environmental degradation and will the programme identify suitable new measures and the effectiveness of existing measures (7e) |
| 6.2 Gaps: GES information | *If not yet adequate for data and information needs to assess GES, describe when the programme will be considered fully adequate*  in time for next assessment in 2018 | Select when the programme is expected to be adequate: In 2014; in time for next assessment in 2018; in time for updating of monitoring programme in 2020; later than 2020 (5g) |
| 6.3 Plans: Plans for GES information | *If the programme is not considered fully adequate for data and information needs to assess GES, describe what plans are in place to make it fully adequate (eg. to fill gaps in data methods, understanding or capacity). Describe timeframe, priorities and obstacles.*  **The following changes are necessary to consider the programme adequate for information on GES**:  Start in 2015 (if not already started in 2014) the implementation of coordinated with Romania monitoring programmes on biodiversity D1,4 Fish (non-commercial ) to provide information on the distance from GES and update the GES definition, if necessary, for the next Article 8 reporting on assessment of environmental status and Article 9 reporting on GES in 2018.  **Spatial scope of the monitoring programme**. Expand the current monitoring network to provide data for the pressure from the drivers (human activities and natural changes), state and impact in the coastal waters, territorial waters and exclusive economic zone, according to the requirements of the Marine Strategy Framework Directive.  **Design a statistically sound monitoring programme**. Robust statistical methods should be used to determine the minimum sampling size, spatial frequency and temporal resolution of the monitoring network. Software tools like [DISTANCE](http://www.ruwpa.st-and.ac.uk/distance/) and [AD Model Builder](http://admb-project.org/) can be used to support the design of statistically sound and economically feasible monitoring programme.   * Institute of Biodiversity and Ecosystem Research - Bulgarian Academy of Sciences – experience in modelling the marine food web; * Institute of Fisheries Resource – Ministry of Agriculture – research expertise in fish and long dataset on different characteristics in the marine environment;   **Integration across Black Sea Member States (at minimum, Bulgaria and Romania)** ([Zampoukas et al., 2012](http://publications.jrc.ec.europa.eu/repository/handle/111111111/23169))**.** Joint cruises with Romania will help minimizing the costs and ensure that the data are acquired in a similar and comparable manner thus allowing a comparable assessment and classification of the Bulgarian and Romanian marine areas. The benefit of using common sampling methods and common parameters will result in having regionally agreed indicators, and consequently setting regionally coherent targets and definitions of GES.  **Integration across legislative requirements and Regional Sea Conventions (RSCs)** ([Zampoukas et al., 2012](http://publications.jrc.ec.europa.eu/repository/handle/111111111/23169)). Both Bulgaria and Romania can use the data generated in fulfillment of the obligations under the related environmental legislation of the EU (e.g. Water Framework Directive, Bathing Waters Directive and Habitats Directive) and the [Black Sea Commission](http://www.blacksea-commission.org/) to acquire information on GES.  **Integration across descriptors and indicators (**[Zampoukas et al., 2012](http://publications.jrc.ec.europa.eu/repository/handle/111111111/23169))**.** The coordinated monitoring programme on D1, 4 – Non-commercial fish, can be combined with the monitoring programme on D3 – commercial fish, where turbot is a common regionally agreed indicator and can be sampled together with the Thornback Ray and D1, 4, 6 – Seabed habitats, because the Thornback Ray is a demersal fish species.  **Bulgaria and Romania should revise and further develop together** coherent GES definitions and assessment methods for their marine waters, taking into account the assessment and the recommendations of the Commission, as much as possible, in 2014.  **Bulgaria and Romania should revise and further develop together coherent targets** based on agreed, if not harmonized, indicators for their marine waters, taking into account the assessment and the recommendations of the Commission, as much as possible, in 2014.  **Bulgaria and Romania should develop together agreed indicators** (based on common parameters) and/or **harmonised indicators** (based on common parameters and common methods) for their marine waters, taking into account the assessment and the recommendations of the Commission , as much as possible, in 2014.  Distinguish between the natural and climatic variability and human pressure (in relation to MSFD Art. 11 reporting question 5f) – Data on natural and climatic variability (e.g. from the IPCC Data Distribution Centre and the National Institute of Meteorology and Hydrology – Bulgarian Academy of Sciences), and anthropogenic pressure (e.g. land-based point sources of pollution) should be made available to the monitoring institution to be able statistically analyse and distinguish between the pressure from global teleconnections and regional sources of anthropogenic pressure. In addition, data on the Danube river nutrient discharge and the role of the Black Sea Rim current should be made available, because they are of particular relevance for distinguishing the pressure of the Danube River from the pressure from the Bulgarian Rivers on Bulgarian marine waters. Data should be made available to the monitoring institution in time for the next assessment in 2018.  **Using consistent sampling and assessment methodologies across Member States (Bulgaria and Romania)**.  **Take advantage in 2015 (if not already taken in 2014) of the available co-funding opportunities (LIFE, Horizon 2020, EMFF) and/or International Financial Institutions (European Bank for Reconstruction and Development (EBRD), European Investment Bank (EIB), The World bank (WB)), if necessary to fulfil the requirements of the MSFD**. Spatial scope and the monitoring requirements pose significant burden to the national budgets of all the EU countries. Therefore, both Bulgaria and Romania should advantage of the relevant EU funds to support the implementation of the MSFD. | Free text or URL link to relevant information (5h) |
| 6.4 Gaps: Target information | *If not yet adequate for data and information needs to assess targets, describe when the programme will be considered fully adequate*  in time for next assessment in 2018 | Select when the programme is expected to be adequate: In 2014; in time for next assessment in 2018; in time for updating of monitoring programme in 2020; later than 2020 (6e) |
| 6.5 Plans: Plans for information on targets | *If the programme is not considered fully adequate for data and information needs to assess targets, describe what plans are in place to make it fully adequate (eg. to fill gaps in data methods or capacity). Describe timeframe, priorities and obstacles.*  Start in 2015 (if not already started in 2014) the implementation of coordinated with Romania monitoring programme on biodiversity within the current monitoring programme D1,4 Fish (non-commercial) to provide information on the GES targets and update the targets, if necessary, for the next GES Article 9 reporting in 2018.  **Bulgaria and Romania should revise and further develop together coherent targets** based on agreed, if not harmonized, indicators for their marine waters, taking into account the assessment and the recommendations of the Commission, as much as possible, in 2014.  Review and regularly update the targets to reflect the improved knowledge of the relevant indicators and related threshold values (if applicable), produced during the yearly coordinated monitoring programmes, established according to Article 11 of the MSFD.  **Develop threshold values and/or trends for the relevant indicators under D4 (food webs)** by using the available data and modelling tools (in time for next assessment in 2018). | Free text or URL link to relevant information (6f) |
| 6.5 Plans: Plans for information on measures | *If relevant: If the*  *programme is not considered fully adequate for data and information needs to assess measures describe what plans are in place to make it fully adequate (eg. to fill gaps in data methods or capacity). Describe timeframe, priorities and obstacles.* | Free text or URL link to relevant information (7f) |