



**United Nations
Environment
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**Technical Workshop on Selecting Indicators for
the State of Regional Seas
Geneva, 30 June – 2 July 2014**

Summary of regional seas indicator system

	ORGANIZATION/PROJECT			
Question	Arafura-Timor Seas (ATS)	Agulhas Somali Current Large Marine Ecosystem (ASCLME)	Bay of Bengal Large Marine Ecosystem Project (FAO) BOBLME	Commission on the protection of the Black Sea Against Pollution-permanent secretariat
1. Does the programme carry out regular state of the marine environment reporting? Which form is such an assessment developed?	<p>-First phase (2010-2014) - develop Strategic Action Program (SAP), Transboundary Diagnostic Analysis (TDA) and establish a Demonstration Pilot Projects and Regional Institution Mechanism.</p> <p>-Regular records on the condition/quality of marine resources and environment is described in the SAP – Information on marine resources and environment have been collected and published as baseline data/information for establishing the current status of the marine resources and environment</p>	<p>-Each country has developed a national Ecosystem Diagnostic Analysis which provides a comprehensive update on the state of biophysical and socio-economic aspects of the marine and coastal ecosystems.</p> <p>-This report feeds into other state of the environment/coast and will be updated every 5yrs www.scle.org</p>	<p>-BOBLME TDA was approved in March 2012</p> <p>-BOBLME has also undertaken several bench mark studies on various aspects of LME including: performance in managing marine resources in the Bay of Bengal; performance in managing hilsa and Indian mackerel in the Bay of Bengal; stock status reports for hilsa and Indian mackerel; nature and extent of MPAs in the Bay of Benga</p>	<p>-The state of marine environment is assessed every 5yrs: report named State of Environment Report.</p> <p>-The assessment report is coupled with another report that should assess the effectiveness of the implementation of the SAP- Report on the Implementation of the Black Sea Strategic Action Plan (BBSAP) two assessments were undertaken so far. Last assessment reports were published by the BSC in 2008 www.blacksea-commission.org . The third is ongoing</p> <p>-The third diagnostic reports (two so far, 1996 and 2007) were elaborated with the aim to prepare and update the BBSAP.</p> <p>-The last diagnostic report was dedicated to the improvement to the regular reporting process on the State of the Black Sea environment and was elaborated in 2010 www.blacksea-commission.org</p>
2. Any indicator systems devised for carrying out the marine environment reporting?	<p>-They have seven operational objectives, where each has a quantitative target that should be achieved</p>	<p>-We have developed a very detailed indicator framework from our TDA and SAP; it has been reviewed by a specialist panel but still in the process of development (refinement and consolidation).</p>	<p>-Marine resource management performance: An assessment of fourteen indicators of marine living resources management in the countries that reflect both their intention to sustainably use the fishery resources within their EEZs in the Bay of Bengal and the effectiveness of their policies</p>	<p>-In the Black Sea region, the indicators were selected according to the DPSIR framework; still the process of elaboration of indicators to express the status, pressures and impacts for the marine environment is ongoing in order to be further harmonized with EEA and MSFD indicators</p>

			(as specified by Alder et al 2010) - Hilsa and Indian mackerel fisheries management: the MSC Certification criteria were applied to the fisheries for hilsa and Indian mackerel - Ecosystem health indicator: a score card is being developed for Chilika Lake, India - Extent of marine protected areas/fish refugia	
3. What indicators are being used and how were they selected?	-They use resources and environment indicators which describe the achievement of an environment objective		- See Question 2 - BOBLME held indicator workshops to develop ECOQO's and indicators for the SAP, but overall there is a tendency to adopt TWAP indicators	-Indicators for pressure, state and impacts were based on the requirement of the BBSAP 1996 and to the availability of monitoring data of the countries in the region. The indicators for response were selected according to EEA indicators
4. Do you have specific programme targets and objectives?	-In the SAP, there are 5 ecosystem quality objectives which have been translated into 7 operational objectives, each objective has a quantitative target that should be achieved within a period of time. -Example: "To promote responsible fishing practices, including combating IUU fishing". This is in line with IUU Fishing Region Plan of Action	-We have ecosystem quality objectives and targets	See diagram 1 below:	-Bucharest Convention has 5 protocols: a. protocol on the protection of the Black Sea Marine Environment Against Pollution from Land Based Sources (LBS Protocol 1992) b. Protocol on Cooperation in Combating Pollution of the Black Sea Marine Environment by Oil and Other Harmful Substances in Emergency Situations (Emergency Protocol, 1992) c.
5. Are there indicators/indices to monitor the progress of achieving these targets/objectives?	-Obj 1.1: To promote responsible fishing practices, including combating IUU fishing Tar 1.1: IUU fishing reduced in the Arafura and Timor Seas (ATS) by 15-20% -Obj 1.2: Understand and		-We have draft indicators, currently under review in the draft SAP	-In the BSSAP 2009 THREE SETS OF Monitoring and Evaluation indicators (proposed by GEF) to measure the implementation of SAP: process indicators, stress reduction indicators and environmental status indicators. These sets will be used in the assessment of the implementation of

	<p>address the ecological impacts of fisheries</p> <p>Tar 1.2: Ecosystem Approach to Fisheries Management applied across the ATS</p> <p>-Obj 2.1: To strengthen the management of biodiversity, especially ecologically important habitats like mangroves, coral reefs and sea grass beds</p> <p>Tar 2.1: Enhanced management and protection of 20% of marine and coastal habitats</p> <p>-Obj 3.1: To prevent and reduce inputs of pollutants from coastal point land sources (wastewater, sewage and industrial) and diffuse sources (land-use)</p> <p>Tar 3.1: Reduction of the ecologically harmful impacts of nutrients in coastal waters from base year</p> <p>-Obj 4.1: To reverse the decline in threatened and migratory marine species like turtles, dugongs, seabirds/shorebirds, sea snakes, sharks and rays in the ATS</p> <p>Tar 4.1: Enhanced protection of 10-20% of important habitats for threatened and migratory marine species; 20% decrease in direct and indirect harvesting of threatened and migratory species</p>			<p>the BSSAP 2009, which will be completed provisionally in 2015.</p>
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	<p>-Obj 5.1: To promote the adaptive capacity and resilience of coastal and marine ecosystem and reduce vulnerability of local communities to climate change</p> <p>Tar 5.1: Increased understanding of climate change impacts and incorporation of that knowledge into management plans and strategies, including establishment of management plans for more than 60% of at-risk coastal villages</p>			
<p>6. Are the information on indicators collected periodically? How often? Are they included on a specific database? URL?</p>	<p>-Data is not collected periodically. Data and information were collected for the purpose of developing the TDA, NAPs and SAP</p> <p>-After the endorsement of the SAP by the ministers, the ATS Region Mechanism will be the overall body responsible for monitoring and evaluation of the implementation of the SAP and the following reporting mechanisms will be put in place:</p> <ol style="list-style-type: none"> Annual reporting of implementation progress and key indicators Three yearly reporting on SAP implementation plan Mid-term evaluation (after 5yrs) of implementation 	<p>-Baseline data has been collected and many ocean-atmosphere data are being collected on a near-real time basis (www.asclme.org :under access data and information)</p>	<p>-To be collected and analyzed as part of SAP implementation</p>	<p>-There are specific reporting formats elaborated by the six Advisory Groups (AGs) of the BSC:</p> <ol style="list-style-type: none"> ESAS (Environmental Safety Aspects of Shipping), PMA (Pollution Monitoring and Assessment), LBS (Control of Pollution from Land Based Sources), ICZM (Development of Common Methodologies for Integrated Coastal Zone Management) CBD (Conservation of Biological Diversity) and FOMLR (Environmental Aspects of the Management of Fisheries and Other Marine Living Resources). <p>-- The reporting formats are based on agreed parameters and indicators and the requirements established in the frame of the Black Sea Integrated Monitoring and Assessment Program (BSIMAP)</p>

	progress and changes to process, pressure and state indicators in the ATS d. Final evaluation (after 10yrs) of changes to process, pressures and state in ATS region thanks to the implementation of SAP			(summarized in the Diagnostic Report 2010, available on www.blacksea-commission.org). The AGs report annually to the BSC on both state of marine environment and policy measures. Nevertheless, the reporting formats should be further updated, as the BSIMAP is in the process of being updated. - Annual reports are prepared by the six AGs, and presented to the BSC at its Regularly Meetings, but they are not made publicly available so far. - Only five year reports that were mentioned before were published on www.blacksea-commission.org .
7. Are the indicators working? How well, using the targets and indicators? Can they be amended?	-The programs listed in the SAP as well as the monitoring and evaluation have not yet been implemented	-They haven't been implemented yet	-This will be tested as part of a TWAP 2 nd level assessment (for governance, socio-economy and pollution	- The efficiency of indicators will be further tested in the 3 rd Assessment of the state of marine environment of the Black Sea and for the implementation of the BSSAP 2009. - The testing of indicators is progressive. Once the relevance of the indicators selected so far is proved, the work will continue for development of other indicators.
8. Are there constraints on the selection and use of indicators?	-N/A since the programs are yet to be implemented	-N/A	-Due to limited funds available in view of the vastness of the area (6.2 million km ²) the productivity and fish and fisheries indicators (LME modules) will not be covered; these will be mitigated by a). joining the IOGOOS (UNESCO-IOC) and b). establishing the ecosystem characteristics and developing an ecosystem model (CSIRO and UBC-SAUP)	- For further development of some indicators, specifically the eutrophication indicators, there are some financial constraints in terms of limited capacity of data collection through monitoring – enhanced use of satellite observations and automated systems for monitoring of respective parameters are needed. For the moment these means are not widely used at the regional level. Special

				<p>algorithms for usage of satellite images to calculate Chl concentration for both coastal and open sea are in development phase.</p> <p>- More efforts are necessary to ensure a proper monitoring system that should provide quality data for further development of indicators.</p>
9. Do you have a summary of data collection? What is the URL?	-All publication have been uploaded in our website: www.atsea-program.org	- www.asclme.org under Access data and information	-TDA and draft SAP available; data collection for EcoQO Indicators still in design stage	<p>- A summary for data collection is available online only for pollution monitoring data at http://rdbp.sea.gov.ua/.</p> <p>- Further development is foreseen for the database of PMA RAC that will include the other datasets provided by the BS countries to the BSC.</p>
10. Is there a database of the information collected? What is the URL?	-Not yet	-We have several databases, www.asclme.org under Access data and information, also see African Marine Atlas which will be a repository for our spatial data: www.africanmarineatlas.org , and the Nairobi Convention Clearinghouse Mechanism for metadata	-Not yet; MPA database under development	<p>- The Black Sea Information System (BSIS) includes a database, developed recently within a project funded by EC-DG Environment (Baltic2Black). The database is dedicated to the collection of data for pollution; it is hosted by its developer, Ukrainian Scientific Centre for Ecology of the Se (UkrSCES) that function as the Regional Activity Centre for Pollution Monitoring and Assessment (PMA RAC) and is available online at http://rdbp.sea.gov.ua/ / Other databases have limited online accessibility for the time being. More efforts (financial, human resources) are necessary to maintain the already created system and databases functional</p>
11. Do you use global datasets? Which one? What	-NO	www.africanmarineatlas.org	-SAUP (fish and fisheries), WDPA-WCMC (MPA), NOAA Satellite data	- Yes, for the five-year assessment of the state of marine environment all

for? What does it in from?			(oceanography and hydrography)	<p>data sets collected through projects and stored in different databases are used.</p> <p>http://www.blackseascene.net/v_cdi_v2/browse_Step.asp - all available datasets collected and provided by the Black Sea countries.</p> <p>For the satellite Chl – one of the eutrophication indicators, there are available data on the following websites and they are used for assessment:</p> <p>http://oceancolor.gsfc.nasa.gov/ http://www.enviport.org/meris/lv3_main.htm http://www.myocean.eu/</p> <p>Also the data collected and available on EMODNET specialized portals are used: data for hydrography (http://www.emodnet-hydrography.eu/), chemistry (http://www.emodnet-chemistry.eu/portal/portal/), biology (http://bio.emodnet.eu/portal/index.php). Based on the data extracted from different databases, the environmental indicators (for state, pressure, impact) are calculated and used in the assessment.</p>
				<p>- All partner research institutions from the BSC institutional network. Some of them are listed below: BG: Institute of Oceanology – BAS, Varna (eutrophication, biodiversity and fishery); Black Sea Basin Directorate, Varna and Burgas (pollution and eutrophication) GE: Marine Ecology and Fisheries</p>

预览已结束，完整报告链接和二维码如下：

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