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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

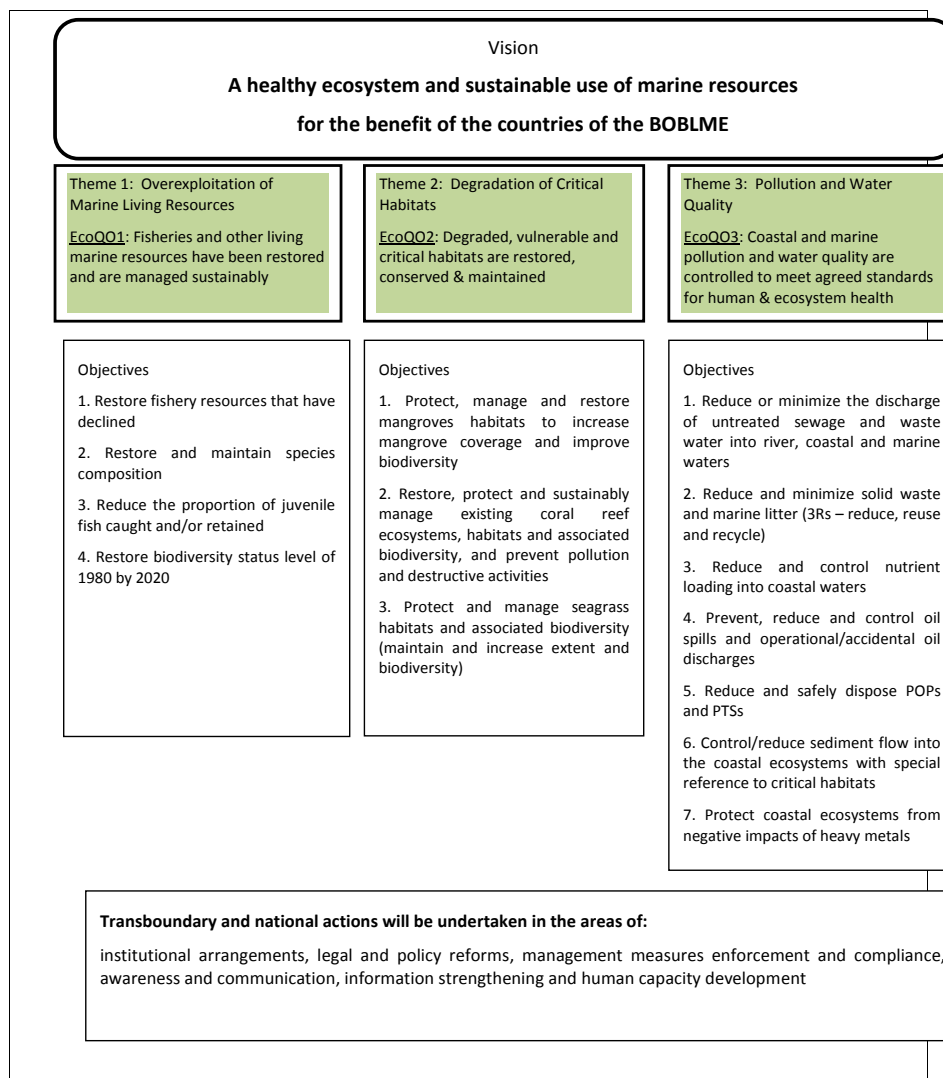
				<p>algorithms for usage of satellite images to calculate Chl concentration for both coastal and open sea are in development phase.</p> <p>- More efforts are necessary to ensure a proper monitoring system that should provide quality data for further development of indicators.</p>
9. Do you have a summary 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>
12. Indicate partners in the development and monitoring of indicators	-Not developed yet	Fisheries Research Institutions, Fisheries Departments, NGOs, Universities, University of British Columbia, IndiSeas, IRD, SWIOFC, IOTC, SIOFA, WWF, COI, Western Indian Ocean Marine Science Association, Mauritius Oceanographic Institute, Marine Remote	-TWAP, SAUP. UNEP-GPA	<p>- All partner research institutions from the BSC institutional network. Some of them are listed below:</p> <p>BG: Institute of Oceanology – BAS, Varna (eutrophication, biodiversity and fishery); Black Sea Basin Directorate, Varna and Burgas (pollution and eutrophication)</p> <p>GE: Marine Ecology and Fisheries</p>

		<p>Sensing Unit, NODCs (ODINAFRICA), Marine Biology Dept at Univ Reunion, African Marine Information System AMIS, AMESD, NOAA, GMES, Transboundary Waters Assessment Programme TWAP, African Marine Atlas (IOC/UNESCO) , South African Dept Environmental Affairs, Rhodes University, COPEPOD, SIBER, South african Environmental Observation Network, Coast and Ocean Research and Development in the Indian Ocean, Seychelles Fishing authority, Fisheries Research Institute Mozambique IIP, Seychelles OTN, GBIF, OBIS, IUCN, IOC/UNESCO, GEOHAB, Argo Programme, NOAA/OSCAR, global drifter programme, EARS Africa, South African Weather Service SAWS, Frontier Research Centre for Global Change, National Departments of Environment, Transport, Ports, Fisheries; Disaster management departments, Indian Ocean Commission, Marine Highway Project, IMO, UNEP, Nairobi Convention, SOCMON WIO, NEPAD, SADC, AU, COI, EAC, COMESA, FAO, Birdlife International</p>		<p>Research Institute Batumi (biodiversity, eutrophication, fishery) RO: National Institute for Marine Research & Development “Grigore Antipa” NIMRD (eutrophication, pollution, biodiversity, fishery) RU: State Oceanographic Institute, Moscow (pollution, eutrophication, biodiversity); P.P. Shirshov Institute of Oceanology –RAS Moscow and Gelendzhik (eutrophication, pollution, biodiversity); Special Centre on Hydrometeorology and Environment Monitoring of the Black and Azov Seas SCHME-BAS, Sochi (eutrophication and pollution) TR: Istanbul University (biodiversity, eutrophication, pollution); TUBITAK Marmara Research Centre (eutrophication); IMS-METU (environmental monitoring and indicators) UA: Ukrainian Scientific Centre for Ecology of the Sea UkrSCES, Odessa (eutrophication, pollution); Odessa Branch of Institute of Biology of the Southern Seas OBIBSS (eutrophication, biodiversity); Southern Research Institute of Marine Fishery and Oceanography PivdenNIRO, Kerch (fishery).</p>
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13. Any additional information?				
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National Coordinators at a Regional SAP Development workshop, and adopted by the PSC in 2012.



QUESTIONS	ORGANIZATION/PROJECT		
	Partnerships in Environmental Management for the Seas of East Asia PEMSEA	Regional Organization for the Protection of the Marine Environment ROPME	The Regional Organization for conservation of the Environment of the Red Sea and Gulf of Aden PERGA
1. Does the programme carry out regular state of the marine environment reporting? Which form is such an assessment developed?	<p>- PEMSEA promotes various tools and methodologies, including the State of the Coasts reporting (SOC) and the Integrated Information Management System (IIMS) to assist local governments in their integrated coastal management (ICM) implementation.</p> <p>-The SOC reporting system was developed primarily for local governments implementing ICM to aid in their evaluation of the progress and benefits of their ICM program Implementation. The SOC documents the social, economic and environmental status of the coastal and marine, and river basin area, including management interventions and implementing mechanisms that were put in place. The SOC also allows local governments to document and measure the effectiveness and impacts of policy and management interventions in support of sustainable coastal development, and evaluate progress towards local, national and international targets for sustainable development.</p> <p>-The IIMS on the other hand is a decision support and a comprehensive relational environmental database that facilitates the storage, retrieval and generation of information to support planning and decision making in ocean and coastal and river basin management.</p> <p>-For details on the SOC and the IIMS, please see link to the references provided below: Guidebook on the State of the Coasts Reporting - http://www.pemsea.org/publications/guidebook-state-coasts-reporting Bataan IIMS Case Study - http://www.pemsea.org/publications/enhancing-coastal-and-marine-management-through-effective-information-management-bataan</p>	<p>-Yes, ROPME is publishing the State of the Marine Environmental Report (SOMER) with frequent intervals and so far it has published three times, during 1999, 2000 and 2003, and the fourth one is in the final stage of preparation which will be published in October 2013. The forthcoming SOMER will be in the pattern of UNEP Global Environment Outlook (GEO). To this effect, ROPME in collaboration with UNEP prepared Guidelines for the preparation of National Report on the State of the Marine Environment, using the Integrated Environmental Assessment Methodology as is used in the preparation of GEO, focusing on the DPSIR concepts</p>	<p>-Yes, PERGA is carrying out State of Marine Environment Reporting regularly. The 1st SOMER on the Red Sea and Gulf of Aden was developed in 2006. The 2nd SOMER is being prepared</p>
2. Any indicator systems	- The SOC uses a series of process, social, economic	-Yes, we have devised the indicator system to	- The 1 st SOMER was based on

devised for carrying out the marine environment reporting?	and environmental indicators as a basis to measure existing conditions at an ICM site as well as to determine changes that occur overtime. The SOC indicators are simple, meaningful and measurable parameters which are applicable in the East Asian Seas (EAS) region and complement those of relevant regional and international instruments (e.g., Agenda 21, WSSD, MDG, and SDS-SEA)	carry out the state of the marine environment reporting	descriptive approach in measuring response and progress. It has reflected some state and pressure indicators that had been already used by surveys and assessments which the SOMER reviewed. However, a proper indicator system was not used for the SOMER purpose in particular. PERSGA is currently planning to develop regional indicators to be adopted by SOMERs and input national reports by member states
3. What indicators are being used and how were they selected?	<p>- The process of developing the set of indicators for the SOC entailed a series of consultations with experts on environmental assessments, and the compilation, analysis and preparation of a matrix of indicators from various environmental assessments and management programs conducted within and outside the EAS region. From the matrix, a total of 160 indicators were selected based on the following criteria: a) simple and meaningful; b) easy applicability in the EAS region; and c) complementary to the indicators identified in relevant international instruments. The selected indicators for the SOC were organized in accordance with the Sustainable Development of Coastal Area Framework.</p> <p>-From the 160 indicators, 35 core indicators were determined as the essential information needed to evaluate the progress in ICM implementation based on PEMSEA's experience in developing and implementing ICM programs at the local government level. Details on the indicators can be accessed through http://www.pemsea.org/publications/guidebook-state-coasts-reporting.</p>	<p>-The coastal and marine environmental and biodiversity indicator matrixes as adopted by the UNEP/DEWA-ROWA Regional Workshop on priority Environmental Indicators for West Asia/Arab Region, Bahrain, 13-15 October 2003 (Annex I)</p> <p>-GEO Data-Indicator Matrix as approved by the QEO Data Working Group in Novemebr 2004 (AnnexII)</p>	<p>- PERSGA has developed Standard Survey Methods for the region (SSMs) for key habitats (mangroves and intertidal biotopes, coral reefs, and sea-grass beds) species groups (marine turtles, sea birds, marine mammals) since 2001. These methods include indicators specific for each habitat or species group; they have been selected based on particular characteristics and features of the subject habitat or species group, hence they are mostly <u>State</u> indicators.</p> <p>PERSGA is planning that the new indicators to be developed shall consider measuring pressure and response as well; they shall also cover governance and socioeconomic aspects besides ecological ones.</p>
4. Do you have specific programme targets and objectives?	<p>- The Sustainable Development Strategy for the Seas of East Asia (SDS-SEA), which was adopted by 12 countries in the EAS region in 2003, consists of 6 strategies and 227 action programs that Countries commit to implement for the sustainable development of coastal and marine areas. It also serves as a platform for Countries to achieve the</p>	-ROPME has specific programmes/activities, mostly in line with UNEP'S Regional Seas Programmes	<p>- Yes</p> <p>The general Regional Action Plan (1982) developed in connection to Jeddah Convention includes four main objectives, including: 1- assessment of the state of the environment including</p>

	<p>goals of key international agreements and action plans. In line with SDS-SEA implementation, key sustainable targets were identified in the Haikou Partnership Agreement (2006), Manila Declaration (2009) and the Changwon Declaration (2012), which were adopted by the countries in the EAS region.</p> <p>Reference to these documents, including details on the targets adopted can be accessed through: SDS-SEA - http://www.pemsea.org/publications/putrajaya-declaration-regional-cooperation-sustainable-development-seas-east-asia Haikou Partnership Agreement - http://www.pemsea.org/publications/haikou-partnership-agreement Manila Declaration – http://www.pemsea.org/publications/manila-declaration Changwon Declaration - http://www.pemsea.org/publications/toward-ocean-based-blue-economy-moving-ahead-sustainable-development-strategy-seas-east</p> <p>At the local government level, targets for the sustainable development of coastal and marine areas are embodied in their Coastal Strategy, Coastal Strategy Implementation, Strategic Environmental Management Plans, and Local Development Plans.</p>		<p>socio-economic development activities related to environmental quality and of the needs of the Region in order to assist Governments to cope properly with environmental problems particularly those concerning the marine environment; 2- Development of guidelines for the management of those activities which have an impact on environmental quality or on the protection and use of renewable marine resources on a sustainable basis; 3- Development of legal instruments providing the legal basis for cooperative efforts to protect and develop the Region on a sustainable basis; 4- Supporting measures including national and regional institutional mechanisms and structures needed.</p> <p>Habitat and species specific RAPs for mangroves, coral reefs, sea grass beds, marine turtles, seabirds and marine mammals, include definite objectives, priority actions, and some define time frames and indicators to measure progress</p> <p>The Strategic Action Programme for the RSGA region was executed by PERSGA during 1999-2004.</p> <p>Further to the Jeddah Convention, four regional protocols and two MoUs have been developed, including:</p> <ul style="list-style-type: none"> - Protocol Concerning Regional Cooperation in Combating Pollution by Oil and Other Harmful Substances in Cases of Emergency (1982) - Protocol Concerning the Conservation of Biological Diversity and the Establishment of
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			<p>Network of Protected Areas in the Red Sea and Gulf of Aden (2005)</p> <ul style="list-style-type: none"> - Protocol Concerning the Protection of the Marine Environment from Land-Based Activities in the Red Sea and Gulf of Aden (2005) - Protocol Concerning Exchange and Movement of Equipment and Personnel in Cases of Emergency (2010) - MoU Concerning Cooperation on Port State Control (2012) - MoU Concerning Cooperation in Management of Fisheries and Aquaculture (will be signed by end of 2013)
5. Are there indicators/indices to monitor the progress of achieving these targets/objectives?	<p>- The SOC consists of indicators relevant to governance elements (policy, strategies and plans; institutional arrangements; legislation; information and public awareness; capacity development; financing mechanisms) and issue-specific management programs (natural and man-made hazard prevention and management; habitat protection, restoration and management; water use and supply management; food security, fisheries and livelihood management; pollution reduction and waste management). Such indicators will allow local governments to assess their progress relative to their sustainable development targets. Details on the indicators can be accessed through http://www.pemsea.org/publications/guidebook-state-coasts-reporting.</p>	-Yes	-Generally No, except for some habitat specific action plans, which define some indicators to measure progress
6. Are the information on indicators collected periodically? How often? Are they included on a specific database? URL?	<p>- Depending on the capacity and data availability at the local government level, the SOC report maybe updated every 3 to 5 years. The results for the indicators, including implications and recommendations are published in a SOC report. SOC reports for Batangas and Guimaras, Philippines can be downloaded in: http://www.pemsea.org/publications/state-coasts-</p>	-Yes, the data/information are collected on regular basis and produced in reports related to marine environment and biodiversity. The obtained data and information are available in ROMPE Integrated Information System (RIIS) database. For an overview of the RIIS (www.riis-rompe.org), Please refer to Item	- Data are collected sporadically for seawater, and less frequent for habitat and species. Generally, spatial and temporal coverage is too little to make concrete conclusions on status of many habitats and species.

	<p>batangas-province and http://www.pemsea.org/publications/state-coasts-guimaras-province.</p>	<p>No.9.</p> <p>-The RIIS was designed to be updated on regular basis to provide the latest information on the ROPME Sea Area. It contains various reports, graphs and forms and maps generated from the RIIS database. It is a web application with tools and search features that filter information for further analysis and report integration which are now accessible by our National Focal Points</p> <p>There are 4 main modules/databases where data are stored and sorted systematically. Each module has set of reports and graphs as follows:</p> <p>-Oceanographic Cruise Module: Search and report includes: Biological reports, chemical report, physical reports, CTD reports and meteorological reports. Graphs, reports are generated Station-wise, cruise-wise, parameter-wise and cruise comparison which include several types of graphs under each category</p> <p>-Sea contamination module: Data can be filtered by Year, Country, Station, parameter category and sample type. using these fields as filters, different sets of data can be generated to prepare a report. For graphs, reports ca be generated year-wise, country-wise, parameter-wise and country comparison</p> <p>-Remote sensing order management module: The module enables the user to request for satellite images identified using the search feature for particular date and area coverage. The system will list all available satellite images generated from the search filter and the user can select any particular image of interest.</p> <p>-Country profile information module: There are 3 cub-groups of this module namely: Indicator search, Research search and CPIS reports. Each of these sub-group contains search features that generate specific reports, such as:</p> <p>Indicators are grouped into themes and issues which could be further filtered down by source</p>	
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		<p>and by country. The result will be visually display on the map.</p> <p>Resources are grouped into human, document, institutions and activities. For human resources, the database generated a directory listing of experts in the ROPME Sea Area by country, specialization, etc. For documents, alist of reports can be generated by country, topics etc. For onstitutions, alist of institutions is generated by country, departments etc. and is integrated with the human resources. Finally for activities, a list of major conferences, meeting, projects etc is generated by country, by subject etc</p> <p>CPIS Report contains 3 Reporting Formats on Marine mortality HABS and mammal Mortality</p>	
<p>7. Are the indicators working? How well, using the targets and indicators? Can they be amended?</p>	<p>- The indicators for the SOC identify the areas in ICM implementation that are progressing well and areas that need more attention. The SOC reporting is an evolving process and will be enhanced to capture indicators covering emerging issues, key developments in various international instruments and site specific requirements (e.g., urban areas).</p> <p>-In the implementation of the SOC at various local sites, local governments are encouraged to evaluate the 35 core indicators at the minimum, and include additional based on the 160 indicators depending on local capacity and data availability. Determining the same set of indicators will allow cross-comparison across sites and consolidation at the sub-national and national level.</p>	<p>-State and trend analyses are made on certain indicators which describes the chronological changes that have occurred in the marine environment, and are presented in the SOMER</p>	<p>-For some attributes Yes for some No. Problems are mostly lack of time series data and limited spatial coverage</p>
<p>8. Are there constraints on the selection and use of indicators?</p>	<p>- The initial 160 indicators for SOC were collapsed to 35 core indicators, which would still allow the evaluation of progress and impacts of ICM implementation, due to technical and data limitations at the local level.</p>	<p>-Major constrains are on receiving data/information of selected indicators from some ROPME Member states</p>	<p>-Yes lack of funds to support sustainable monitoring and limited capacities t undertake periodic monitoring and survey activities are the most important constraints</p>
<p>9. Do you have a summary of data collection? What is the URL?</p>	<p>- The SOC reporting system is developed and owned by the local governments. Except for the published report, data collected for the indicators are consolidated and maintained by the local government.</p>	<p>-ROPME is developing an online web application called ROPME Integrated Information System (RIIS) located at www.riis-ropme.org which will be of ROPME's data on oceanographic cruises, contaminant surveys, satellite images and Member State specific information on human resources, scientific</p>	<p>-Yes, publications available online at www.persga.org For URL of specific data , please contact islam.taha@persga.org</p>

		<p>studies and environmental indicators that are periodically updated</p> <p>The RIIS is a map-based application with default general public domain access but special privileges are accorded to Member States to have more access and rights to update and modify data</p>	
10. Is there a database of the information collected? What is the URL?	-Please refer to answer in 9	-Answer already provided in Q9	-see answer above
11. Do you use global datasets? Which one? What for? What does it in from?	-No	<p>-Global dataset that are used by RIIS are the following:</p> <p>ESRI- for world base map</p> <p>UNEP World Conservation Monitoring Centre- for monitoring parameters</p> <p>World Database on Protected Areas (WDPA)- Area and location of PA sites within the ROPME Sea Area</p> <p>IOC-UNESCO- Reference for Taxonomic List of Harmful Micro Algae</p> <p>Global Ocean Observing System GOOS- Data parameter reference and sourcing of marine indicators</p> <p>Ocean Data Standard Pilot Project ODS- Data parameter references</p>	-Yes. E.g. status of marine biomes (coral reefs, mangroves etc.) by UNEP and others, climate data e.g. NOAA, and several other data types available by IOC, GOOS, GLOSS etc
12. Indicate partners in the development and monitoring of indicators	<p>-The development of the State of the Coasts Reporting system entailed a series of consultations and discussions, and benefited from the inputs of the following experts.</p> <p>Meeting of Experts Group, East Asian Seas Congress 2006, Haikou, PR China</p> <ul style="list-style-type: none"> • Dr. Russel Reichelt, Reef and Rainforest Research Centre, Australia • Dr. Clive Wilkinson, International Marine Project Activities Centre Limited (IMPAC), Australia • Dr. Meryl Williams, Australian Center for International Agricultural Research, Australia • Dr. Huasheng Hong, Coastal and Ocean Development Institute, Xiamen University, PR China • Dr. Gunnar Kullenberg, France • Dr. Aprilani Soegiarto, Indonesian Institute of Sciences 	<p>-ROPME Member States, UNEP, UNEP-ROWA, IAEA-MESL, IOC, WHO, FAO and IUCN</p> <p>With regards to RIIS, ROPME Member States are committed in updating the information and monitoring the indicators on a regular basis.</p> <p>Ropme COORDINATES WITH EACH Member State to implement tasks</p> <p>ROPME has remote sensing technology and downloads satellite images of the ROPME Sea Area on dialy basis. These images are shared with ROPME has Member States to validate and monitor the occurrence of HABS, oil spills, pollution and other unusual phenomena within the ROPME Sea Are</p> <p>The Marine Emergency Mutual Aid Centre</p>	

	<ul style="list-style-type: none"> • Dr. Tong Soo Long, Enviro-Lift Services Sdn Bhd, Malaysia • Dr. Tan Kim Hooi, Maritime Institute of Malaysia • Dr. Gil Jacinto, Marine Science Institute, University of the Philippines • Dr. Kim Jong Deog, Korea Maritime Institute • Dr. Chou Loke Ming, Department of Biological Sciences, National University Singapore • Dr. Teng Seng Keh, Singapore • Dr. Charoen Nitithamyong, Marine Science, Faculty of Science, Chulalongkorn University, Thailand <p>Dr. Nguyen Minh Son, Institute of Environmental Technology, Vietnam</p> <p>Expert's Consultation Workshop, August 2007, Manila, Philippines</p> <ul style="list-style-type: none"> • Dr. Clive Wilkinson, Global Coral Reef Monitoring Network, Australia • Ms. Frankie Seymour, Department of Environment and Water Resources Australia • Dr. Gil Jacinto, Marine Science Institute, University of the Philippines • Dr. Chua Thia-Eng, East Asian Seas Partnership Council Chair <p>Expert's review of the Guidebook for the SOC</p> <ul style="list-style-type: none"> • Dr. Porfirio Aliño, Marine Science Institute, University of the Philippines • Dr. Huasheng Hong, State Key Laboratory for Marine Environmental Science, Xiamen University, PR China • Dr. Clive Wilkinson, Global Coral Reef Monitoring Network, Reef and Rainforest Research Centre, Australia • Dr. Teng Seng Keh, Singapore <p>Application of the SOC reporting system by ICM and river basin sites in the EAS region</p> <ul style="list-style-type: none"> • Cambodia (Sihanoukville) • China (Xiamen, Dongying, 9 local governments) • Indonesia (Bali, Sukabumi, Tomini Bay; adopted by the Ministry of Environment as monitoring system for coastal areas in Indonesia) 	<p>MEMAC- www.memac-rsa.org , the technical arm of ROPME based in Bahrain has the primary task of monitoring oil Spills, marine accidents and other types of pollution emergencies in the ROPME Sea Area</p>	
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	<ul style="list-style-type: none"> • Lao PDR (Sedone River Basin) • Philippines (Batangas, Bataan, Bulacan, Guimaras, Pampanga) • RO Korea (Changwon) • Singapore • Thailand (Chonburi) • Timor-Leste (Liquica and Manatuto) • Vietnam (Danang) 		
13. Any additional information	- The use of the Integrated Information Management System, a decision support system and a relational environmental database, is also being promoted in ICM sites. This will allow governments to systematically store data sets, facilitate retrieval and generation of outputs such as state of the coasts or state of environment, which can aid in planning and decision making for coastal and marine and river basin management.		

	ORGANIZATION/PROJECT			
	Convention for the Conservation of Antarctic Marine Living Resources CCAMLR	UNEP Caribbean Regional Coordinating Unit- UNEP CAR/RCU: Secretariat for the Cartagena Convention and Caribbean Environment Programme.	Caribbean Large Marine Ecosystem CLME	Comision Permanente del Pacifico Sur (CPPS)
QUESTIONS				
1. Does the programme carry out regular state of the marine environment reporting? Which form is such an assessment developed?	- CCAMLR does not produce a state of the marine environment report. It does periodically assess the status and trends of components of the Southern Ocean marine ecosystem with a focus on marine living resources that are the target of harvesting activities and associated and dependent species.	- Not regularly nor consistently yet. Although no “comprehensive” state of environment reporting is being done, the CEP has produced two comprehensive reports to date on pollution loading to the marine environment of the Wider Caribbean – CEP Technical Report Number 33 and CEP Technical Report 52. These can be downloaded from here: http://www.cep.unep.org/publication	- Under the UNDP/GEF CLME Project (2009-2013), updated Transboundary Diagnostic Analyses were produced (available from www.clmeproject.org), which were then used as reference materials to	- Several Environmental assessments have been conducted in the Southeast Pacific with different degrees of regularity in the framework of several regional plans, programs and projects but not on a regular basis. These

		<p>s-and-resources/technical-reports/technical-reports</p> <p>-The Secretariat recently established a standardized reporting template on the Cartagena Convention and its Protocols where Contracting Parties are to provide every two years status of implementation of their obligations under the Convention. Most of these indicators are process in nature relating to policies, institutions and legal frameworks developed and/or enforced at the national level.</p> <p>-In addition, under various large regional projects – marine hot spot assessments, coastal and marine monitoring programmes for specific pollutants, and other monitoring and assessment of coastal and marine ecosystems have been done at the local/national/subregional/regional level but these have been project specific and often in support of already existing national programmes (eg. status of Caribbean coral reefs with ICRI/GCRM, coral bleaching event report, Caribbean Reefs at Risks with WRI, etc).</p> <p>-Most recently, with the entry into force of the Land Based Sources of Marine Pollution Protocol, the Secretariat has prepared an outline for a State of Convention Area Report that was approved by the Governments. Over the coming years resources will be mobilized to prepare the first such report of its</p>	<p>develop a region-wide Strategic Action Programme using a participative approach.</p> <p>-Under the same project, a pilot project called “Prototype Information Management System/Regional Environmental Monitoring Programme” (see also www.clmeproject.org) was executed by IOC of UNESCO. Preliminary results from this pilot project are currently available, but the final reporting (including on a proposed indicators set) has not yet been delivered. A prototype “Atlas and Information Booklet on the Status of the Marine Environment” is also expected to be delivered within the next months.</p> <p>-Results from this pilot project are relatively</p>	<p>assessments have been focused on marine pollution (program CONPACSE), integrated coastal management (project SPINCAM IOC/Flanders) and marine biodiversity (programs on marine mammals, sea turtles, sharks). A compilation of 158 assessment documents for the region where documented and digitized under the framework of the UN Regular Process initiative. Documents are available at our website under the link: http://cpps.dyndns.info/cpps-docs-web/planaccion/biblioteca/ordinario/</p>
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		<p>kind. The outline of this report has been attached. The download link is: http://www.carrcu.org/meetings-events/meeting_info/4</p> <p>-Document 26: UNEP(DEPI)/CAR WG.32/INF.9/ Rev.3</p>	<p>basic, whereas further-reaching work on the development of an indicator framework for monitoring of environmental status in the CLME+, and on progress of implementation of the Strategic Action Programme (thus incl. process, stress reduction and status indicators) is expected to be developed during the second half of 2013. All relevant regional partners (UNEP CEP, FAO, CRFM, OSPESCA, IOC etc) are expected to be involved in this process. Linkages to the UN Regular Process will be foreseen.</p>	
<p>2. Any indicator systems devised for carrying out the marine environment reporting?</p>	<p>- No</p>	<p>- Yes, more or less. Based on the experiences of GEF Projects such as IWCAM, REPCar and CLME as well as State of Environment Report done in other Regional Seas Programmes, the SOCAR includes possible indicators that can be used for reporting. Discussions are ongoing through a Monitoring and Assessment Working Group</p>	<p>- YES: indicators will include process, stress reduction, environmental and socio-economic status indicators. Reference in this context will be made to the Causal Chain Analyses of environmental degradation, development</p>	<p>-No except within the SPINCAM project that considers the development of national and regional indicators for coastal management on regular basis</p>

		<p>established at the last meeting of Contracting Parties in 2011 to establish specific quality ranges for the recommended parameters.</p>	<p>under the TDAs (so the indicators will link to the different components or either CAs or DPSIR chains). Reference will also be made to the findings of the GEF TWAP Project, which calls for additional indicators on governance architecture, performance, etc.</p> <p>-All of this is work in development/to be initiated during second half of 2013.</p>	
<p>3. What indicators are being used and how were they selected?</p>	<p>- The CCAMLR Ecosystem Monitoring Program (CEMP) uses indicator species and environment indicators to derive a number of biological indices that can be used to detect the effects of changes in krill-based ecosystems caused by the harvesting of Antarctic living marine resources. The selection of indicator species is based on their potential to respond to changes in prey availability or environmental factors and their amenability to regular monitoring. --- The CAEMP indicator species are: Adelie Penguins, chinstrap</p>	<p>- The indicators proposed are provided in the SOCAR (State of Convention Area Report). Several considerations were used in this selection as follows:</p> <p>Indicators used in previous studies by the Secretariat such as (1) the Development of UNEP CEP Technical Report 33 on Pollutant Loading to the Caribbean Sea and the updated CEP Technical Report 52; (2) GEF Integrating Watersheds and Coastal Area Management Project (IWCAM) and its work on Indicators; (3) At least 3 technical workshops held related to existing monitoring capacity in the Wider Caribbean Region aimed at</p>	<p>-See above. More details will become available second half of 2013/ early 2014</p>	<p>- The SPINCAM project identified a series of national indicators, and five regional indicators (coastal population dynamics, marine water quality, marine protected areas coverage, biodiversity, and advances in Integrated Coastal Zone Management using different approaches). These indicators were selected through workshops in participative processes with most relevant stakeholders of CPPS member states in</p>

	<p>penguins, gentoo penguins, macaroni penguins, black-browed albatrosses and Antarctic fur seals.</p>	<p>identifying indicators that could be monitored in the region; (4) One that responded directly to the obligations of the Cartagena Convention – process indicators – which are captured in the Cartagena Convention Reporting Template.</p> <p>The report of the latest such technical meeting can be found here:</p> <p>http://www.carrcu.org/meetings-events/meeting_info/4</p> <p>Document # 35 UNEP(DEPI)/CAR WG.33/INF.17</p>		<p>the region (Chile, Colombia, Ecuador, Panama and Chile).</p>
<p>4. Do you have specific programme targets and objectives?</p>	<p>- The objectives of CEMP reflect a practical strategy for the implementation of the CCAMLR conservation principles set down in Article II of the CCAMLR Convention. These objectives aim to:</p> <p>a. Prevent the decrease in the size of any harvested population to levels below those which ensure its stable recruitment. For this purpose its size should not be allowed to fall below a level close to that which ensures the greatest net annual increment;</p> <p>b. maintenance of the ecological relationships between harvested,</p>	<p>- At the Sub-programme level, we have established overall objectives and strategic indicators consistent with those established by UNEP HQ. In addition, depending on the requirements of the Contracting Parties, each biennial work programme is characterized by more specific indicators of achievement based on specific projects and activities.</p>	<p>-YES. Also here, as this is work in progress, the recommendation is that the modalities for linking CLME work to Regional Seas activities are further analyzed during the preparation phase for CLME+ SAP implementation.</p> <p>-The SAP Objectives, Strategies and Actions provide a basic reference for the development of such M&E/indicator framework.</p>	<p>-Yes. The CPPS Secretariat together with its member states prepares biannual Operations Plans with objectives and activities, each with indicators to monitor and follow up their compliance.</p>

	<p>dependent and related populations of Antarctic marine living resources and the restoration of depleted populations to the levels defined in sub-paragraph (i) above; and to detect and record significant changes in critical components of the ecosystem, to serve as a basis for the conservation of Antarctic marine living resources; and</p> <p>c. Prevention of changes or minimisation of the risk of changes in the marine ecosystem which are not reversible over two or three decades, taking into account the state of available knowledge of the direct and indirect impact of harvesting, the effect of the introduction of alien species, the effects of associated activities on the marine ecosystem and of the effects of environmental changes, with the aim of making possible the sustained conservation of Antarctic marine living resources.</p> <p>- The two aims of CEMP are to:</p> <p>Detect and record significant changes in critical components of the marine ecosystem within the Convention Area, to serve as a basis for the conservation of Antarctic marine living resources</p>			
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	Distinguish between changes due to harvesting of commercial species and changes due to environmental variability, both physical and biological.			
5. Are there indicators/indices to monitor the progress of achieving these targets/objectives?	- The CEMP uses indices derived from data on indicator species (i.e. penguins, flying birds, seals) and the environment collected by standard methods within the three Integrated Study Regions of the Convention Area. These indices monitor: reproduction; growth and condition; feeding ecology and behavior; abundance and distribution. The data derived from these indices allows for the ascertaining of trends and anomalies in populations.	-Yes as reflected above but not at the broader regional level	-These will indeed be developed during second half of 2013, early 2014	-Yes, each activity has 2 indicators: monitoring and impact indicators
6. Are the information on indicators collected periodically? How often? Are they included on a specific database? URL?	- CEMP data is submitted annually by CCAMLR Members. In 2013, 6 Members submitted data for 13 CEMP parameters recorded at 13 sites. As this data becomes available it is entered by the Secretariat into a database. The CEMP indices are then reviewed	-Apart from the Cartagena Convention reporting template and through specific projects-no. It is hoped that the state of Convention Area report will address this deficiency. The intention is for the Cartagena Convention Country reports to be synthesized and	-TBD	- These indicators are set up for a biannual period but evaluated annually. Relating to data, a systematic data collection program of annual regional oceanographic cruises has

	and updated each year by the Secretariat and an annual report is presented to the Scientific Committee's Working Group on Ecosystem Monitoring and Management (WG-EMM).	presenting as a working document every two years to the Contracting Parties when they meet. As far as the new SOCAR report, preparing this report every 4-6yrs has been suggested		been ongoing for 14 years within the framework of the ERFEN program (El Niño Regional Program). Reports of these cruises are available in the CPPS webpage: http://www.cpps-int.org/index.php/el-nino-y-la-oscilacion-del-sur/erfen/crucero-regional.html . The database of these cruises is under CPPS property.
7. Are the indicators working? How well, using the targets and indicators? Can they be amended?	- Indicators are reviewed by the WG-EMM. The CEMP Manual (http://www.ccamlr.org/en/document/publications/ccamlr-ecosystem-monitoring-program-standard-methods) was last reviewed in 2004.	-Difficult to assess at this time at the regional level given these efforts are still incipient. The first set of reports from countries using the Cartagena Convention Reporting Template was received in 2011 and not all countries reported. The State of Convention Area Report is a work in progress so we are unable to evaluate at this time.	-Too early for this question	-Because they are indicators related to the compliance of activities, plans and objectives, they are not specifically designed to monitor changes in the environment
	- There has been a decrease, over the years, in the amount of data that has been submitted to the CCAMLR database. This could be caused by the ability for some CCAMLR Members to obtain the financial funding to undertake		-Financial, technological and political constraints determine boundary conditions for what is feasible and what is not. The CLME+ Region is geopolitically very	-Yes, financial and technical constraints

	CEMP surveys annually in this remote part of the world. Other than this there are no further constraints with the processing and analysis of the data.		complex	
8. Are there constraints on the selection and use of indicators?	-Yes. This is provided in the annual report to WG-EMM(http://www.ccamlr.org/en/wg-emm-12/62).	<p>- Yes, the constraints are primarily financial – many countries identified difficulties in establishing and maintaining environmental monitoring programmes due to high cost. Many such programmes were project driven and monitoring ended once project funds were no longer available.</p> <p>-Despite some capacity building by the Secretariat and through various projects to selected laboratories in the region, laboratory and institutional capacity remains weak and countries have identified lack of technical expertise and equipment to do regular monitoring and analysis.</p> <p>-The other main constraint relates to the lack of a culture in many countries to use environmental (ecosystem-based) indicators to inform policy and decision making. While the situation is gradually improving, issues such as data analysis, lack of national and regional centralized data bases, poor access and availability of data – some countries restrict recreational water quality information for example, and the lack of</p>	- The Prototype IMS (see www.clmeproject.org) gives an overview of some (potential) data sources. The current prototype however needs substantial further enhancement, and reworking of its architecture. Substantial improvements of both architecture and content to be undertaken during the next years.	-Yes. CPPS is presently building an ATLAS of metadata for different databases (distribution and whales, sharks and marine turtles,) oceanographic data from regional cruises, pollution, marine protected areas

		transformation of data into information products that can be used for general public awareness and policy/political decisions is lacking.		
9. Do you have a summary of data collection? What is the URL?	- Yes, there is a database of information on CEMP sites, parameters and indices maintained by the Secretariat. However this is not available to the public. Extracts may be released upon request and approval under CCAMLR's Rules for Access and Use of CCAMLR Data.	-No	-See answer above	-The ATLAS is under construction, some individual metadata sets are available on request
10. Is there a database of the information collected? What is the URL?	-Data is collected from defined CEMP sites as listed above.	- We have data bases of some information developed under projects and other information such as our network of marine protected areas, distribution and abundance data for 25 species of marine mammals in the region, protected areas listed under the SPAW Protocol . We also have a data base on Laboratories in the region capable of conducting Monitoring and Assessment. These are all listed below. http://campam.gcfi.org/CaribbeanMPA/CaribbeanMPA.php - Wider Caribbean Regional MPA Database http://www.car-spaw-rac.org/?-Maps-and-reports . Then click on	-Global datasets are being used by CLME stakeholders. However the amount of CLME stakeholders is vast, and their data needs are substantial and diverse. Usefulness of global datasets is high, but detailed reporting on its full usefulness and applicability falls outside the scope of a questionnaire like this.	-Yes. GOBI and CBD maps for the Atlas

		<p>"Outputs of the Lifeweb project - GIS files". Login : LifeWeb . Password : LWgis971</p> <p>http://www.car-spaw-rac.org/?Listing-under-SPAW.311 - Data of protected areas listed under the SPAW Protocol</p> <p>http://www.cep.unep.org/publications-and-resources/databases/interactive-map/interactive-map</p> <p>Interactive Map based on Data Generated from GEF Projects executed by UNEP CAR/RCU – Data based of the information generated on pesticide residues in the marine environment for the countries in Central America (Nicaragua and Costa Rica) and Colombia is maintained through a database – Argos hosted by INVEMAR in Colombia. Please see this link for more information:http://www.invemar.org.co/ingles/noticias.jsp?id=4268</p> <p>The UNEP Lab Capacity database can be found through this link:</p> <p>http://www.carrcu.org/</p> <p>Document and Marine Litter databases were also developed but became corrupted and we are currently trying to recover them.</p> <p>Phase 2 of the GEF CLME project (PIF under development by UNDP) includes as a major component the</p>	<p>We do see great utility however in undertaking such detailed analysis in due time.</p>	
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		development of a regional environmental monitoring programme and information management system(REMP/IMS) for Caribbean marine resources which potentially could be quite comprehensive and inclusive. However financial and technical implications are of concern within the context of a cost-benefit analysis.		
11. Do you use global datasets? Which one? What for? What does it in from?	-CCAMLR members' national and collaborative scientific programs	-Very limited at this time and used only for reference. Eg. data from the World Database of Protected Area were used for some MPA datasets of the Caribbean Regional MPA Database. Also OBIS, WOD/NOAA, etc	- Partners are all stakeholders in the CLME Strategic Action Programme. These include but are not limited to: -UNDP, UNEP CEP, FAO, IOC of UNESCO, CERMES, CRFM, OSPESCA, TNC, GCFI, NOAA, and many more -The 25 GEF eligible CLME countries, the additional non-GEF eligible CLME countries, the dependent territories in the Caribbean -UN Regular Process	-Member states and Institutions from CPPS

<p>12. Indicate partners in the development and monitoring of indicators</p>		<p>- Regional Activity Centres for the LBS, Oil Spills and SPAW Protocols – located in Cuba, (CIMAB), Trinidad and Tobago (Institute of Marine Affairs), Guadeloupe (SPAW RAC) and Curacao (Oil Spills RAC – REMPEITC). Other key partners included the Caribbean Environmental Health Institute based in St. Lucia, INVEMAR based in Colombia, NOAA and the USEPA, CATHALAC (Panama), NGOs such as CANARI, The Nature Conservancy, Gulf and Caribbean Fisheries Institute, WRI, WWF, CI, Birdlife, WIDECAS and national and technical focal points of Governments in the Wider Caribbean Region.</p>	<p>-Substantial work is expected to be undertaken during the implementation period of the 10-year CLME+ Strategic Action Programme developed during the CLME Project, and politically endorsed by the CLME countries. An ecosystem-based approach will indeed be followed in this context.</p>	<p>- There are several programs associated to the Southeast Pacific Action Plan generating information and assessments that eventually would allow defining a set of monitoring and management indicators of global scope.</p> <p>A regular monthly newsletter has been published for more than 20 years for monitoring of climate conditions in the South Pacific related to El Niño. Bulletins are available on: http://cpps-int.org/images/BAC/bac_eng/BAC%20Issue251-%20ABSTRACT%20VERSION.pdf</p>
<p>13. Any additional Information.</p>		<p>- Summary of Objectives and Indicators for the Assessment and Management of Environmental Pollution Sub-Programme;</p> <p>Outline for the State of Convention Area Report;</p> <p>Reporting Template for the</p>		

		Cartagena Convention; Tracking Indicators for the GEF Secretariat in Key Thematic areas of International Waters, Biodiversity and Land Degradation.		
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ORGANIZATION/PROJECTS

QUESTIONS	GEF-HCLME	South Pacific Regional Environment Programme SPREP	SACEP/SAS	Northwest Pacific Action Plan (NOWPAP) of UNEP
1. Does the programme carry out regular state of the marine environment reporting? Which form is such an assessment developed?	<p>-The GEF-HCLME project has as one of its main objectives the elaboration of a TDA-SAP. We are currently developing the TDA via a xxx step process:</p> <p>A).Elaboration of 5 thematic studies following the NOAA modular assessment (completed in both Chile and Peru and documents available in English and Spanish);</p> <p>B) Using the problems identified during the 5 modular studies Causal Chain Analysis workshops were held in Chile and Peru to establish the root cause of the problems and design possible solutions. This work updated the 2006 UNEP GIWA</p>	<p>- Yes, through support to national and also production of a Pacific regional state of environment report (by 2015 in SPREP strategic plan)</p> <p>Also the state of conservation report – currently being compiled by SPREP and consultants</p>	<p>- No regular programmers, but presently SACEP/SAS is carrying out few related activities as projects:</p> <p>Nutrient pollution on the coastal and marine systems of South Asia in collaboration with BOB-LME Project and UNEP-GPA – undertaking scoping study as a background document for a workshop, where deliberations for future actions will take place</p> <p>South Asia Regional Marine and Coastal Biodiversity Strategy in partnership with UNEP and other stakeholders – Address CBD Aichi targets that are relevant to coastal and</p>	<p>-Yes first SOMER was published in 2007: http://dinrac.nowpap.org/documents/NOWPAP_POMR_AC_SOMER.pdf</p> <p>The second is under preparation now</p>

	<p>assessment for the HCLME (documents available in Spanish and English);</p> <p>C).Combination of the 5 NOAA modular assessments in national Ecosystem Diagnostic Analyses (EDA) for Chile and Peru (this work is on-going);</p> <p>D).Combination of the two EDAs outlining transboundary¹ aspects so as to produce a TDA for the whole HCLME region (this work will start once we have the two EDAs).</p>		<p>marine biodiversity</p> <p>Formulating a regional strategy and a action plan to address Ballast Water management in collaboration with IMO and SASP member countries</p>	
<p>2. Any indicator systems devised for carrying out the marine environment reporting?</p>	<p>-We are using the Ocean Health Index and are encouraging the governments of Chile and Peru to look closely at the indicators where they currently have a zero score. In addition we use the Management Effectiveness Tracking Tools for IW and BD as designed by GEF. There is also a Insignia Species list with species selected to reflect the</p>	<p>- Refining indicators used in the PECCO report and the 2010 State of the Pacific report</p> <p>State of the pacific coral reef reports</p>	<p>-Not presently but plan to do so in near future as outcomes of above projects</p>	<p>-Not yet. Suggestions on indicator (as part of Ecological Quality Objectives, EQOs) will be presented to the 18th NOWPAP Intergovernmental Meeting (IGM) in Dec 2013</p>

¹ As there is a marine border dispute between Peru and Chile we have not been allowed to make any reference to transboundary aspects. The word is not even included in the ProDoc.

	<p>state of the HCLME health in terms of population dynamics. Further indicators are to be selected as a consequence of the CCA work</p>			
<p>3. What indicators are being used and how were they selected?</p>	<p>See below:</p>	<ul style="list-style-type: none"> - Incidence of Marine Pollution Occurrence of sand mining Live Coral Cover Soil Loss per Ha Nearshore fish diversity Fishing effort Coastal Commercial Fishing Coastal Subsistence Fishing Offshore Locally Based Fishing Offshore Foreign Based Fishing Nitrogen and Phosphorus loading to the region Port Activity SST Co2 Flux 	<p>-We are using indicators developed by the convention of biological diversity to assess the Aichi Targets</p>	<p>-N/A</p>

		<p>Trophic Index</p> <p>Tuna Biomass</p> <p>Red Listed Species</p> <p>Fish Diversity</p> <p>Coral Diversity</p> <p>-Indicators were selected on most broadly available data around the region (aiming to minimize the need for new and additional data collection)</p> <p>-Scientific needs and priorities</p> <p>-Local and Government regional priorities</p>		
4. Do you have specific programme targets and objectives?	-Yes please see annex 1 and answer to question 3	- Yes, MEA streamlining, SOE reporting, marine focused program in island biodiversity conservation, Secretariat for the Noumea Convention, Officers with focus on CMS, CITES, Ramsar	-Yes, the information gathered from the above mentioned projectes will be used to update the existing South Asian Seas Action Plan,, which was adopted almost two decades ago	-Suggestions on indicator (as part of Ecological Quality Objectives, EQOs) will be presented to the 18 th NOWPAP Intergovernmental Meeting (IGM) in Dec 2013
5. Are there indicators/indices to	-Yes see below.	-Yes particularly Aichi	-No	-N/A

monitor the progress of achieving these targets/objectives?		targets		
6. Are the information on indicators collected periodically? How often? Are they included on a specific database? URL?	www.humboldt.iwlearn.org	-Collected by various ministries, agencies and partner and collated for periodic state of reports	-No	-N/A
7. Are the indicators working? How well, using the targets and indicators? Can they be amended?	-Yes they are working- However, the project started very late and has been slow to get up to speed (2011-2012 were lost years due to the marine frontier dispute). Access to data from state organizations always difficult.	-Not currently at the point of regular, targeted reporting- this is the aim of current efforts to streamline and build capacity in SOE reporting	-Not relevant at the present status	-N/A
8. Are there constraints on the selection and use of indicators?	-As stated in question 7 above the main constraint is access to up to date information	-Financial and technical, governance, geological and geographical challenges enhance these challenges	-Yes Developing indicators which are tailor made to conditions of South Asia as well as monitoring them depends upon financial and technical support as well as political commitment from member governments and donor agencies	-N/A
9. Do you have a summary of data	www.humboldt.iwlearn.org	-Not currently, this is in progress and developing	-No	-N/A

collection? What is the URL?		with SPREP and SOPAC, SPC, CSIRO and NOAA and AAMP to cope with governance challenges of countries, territories and affiliated states		
10. Is there a database of the information collected? What is the URL?	-We have a project document database but this is not accessible on-line	-Not currently, this is in progress and developing with SPREP and SOPAC, SPC, CSIRO and NOAA and AAMP to cope with governance challenges of countries, territories and affiliated states	-No	-N/A
11. Do you use global datasets? Which one? What for? What does it in from?	www.oceanhealthindex.org Please see areas for Chile and Peru	-Developing with SPREP and SOPAC, SPC, CSIRO and NOAA and AAMP to cope with governance challenges of countries, territories and affiliated states And SPREP members	-Yes. Such indicators are developed by CBD , Biodiversity Indicator partnership, Protected Planet, World Bank, FAO etc	-N/A
12. Indicate partners in the development and monitoring of indicators	-Chile: IFOP, SUBPESCA, MMA, Universities. Peru: IMARPE, PRODUCE MINAM, SERNANP, Universities	-2010 Regional Seas, PECCO report, NMDI (National Minimum Development Indicators) SPREP-SOPAC collaboration to upload environmental data (being developed currently)	-National Focal Points of the South Asian Seas Programme and donor agencies such as UNEP and IMO	-FMEB and Regional Seas Programme (including individual programmes such as MAP, CEP and OSPAR
13. Any additional	-As part of the IW:LEARN			-Data and Information

information.	network of LME projects information is also available via: www.iwlearn.net			Network Regional Activity Centre DINRAC is responsible for data sharing: http://dinrac.nowpap.org
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Annex1 for GEF-Humboldt Project: Plus Indicator in the Project Log Frame



GEF-Humboldt Project: 2012 baseline data with targets for year end and means of verification						
Project Strategy	Indicators	Baseline Value 2012	Activities Chile – Peru 2012	Targets at end of 2012	Sources of verification	Assumptions
GOAL: A sustainably used and resilient HCLE that can maintain biological integrity and diversity and ecosystem services for current and future generations despite changing climatic and social pressures						
OBJECTIVE: Ecosystem-based management in the HCLME is advanced through	1. Agreement on and understanding of the ecosystem-level issues of the HCLME as they relate to management of living marine resources (LMR)	Level of EMB understanding amongst project stakeholders is extremely varied. Those that depend upon the resource for their	Training courses at central and pilot site levels on EMB related to the Project objectives. The courses at the central level will be designed to ‘train trainers’	A dramatically increased awareness of the EBM concept and the value of the Ecosystem components. Associated risks are also identified and multisectoral agreements on how to mitigate	Meeting minutes Back to the office reports Training schedules and reports	Activities are accepted by the Steering Committee and distant pilot sites (Lobos de Tierra

GEF-Humboldt Project: 2012 baseline data with targets for year end and means of verification						
Project Strategy	Indicators	Baseline Value 2012	Activities Chile – Peru 2012	Targets at end of 2012	Sources of verification	Assumptions
a coordinated framework that provides for improved governance and the sustainable use of living marine resources and services	and biodiversity conservation.	livelihoods are least aware of the concept, values, links to other sectors and the real risks.	who in turn will be responsible for organizing and or delivering further courses within their work places and with a wider range of stakeholder groups. Activities in both Chile and Peru. Activity code: Budget: \$	the risks are listed at least in the pilot site areas in both countries: Juan Fernandez Islands (Chile) and the areas around the Peruvian National Park sites (Lobos de Tierra, Ballestas and San Juan	Extension materials generated and distributed	and Juan Fernandez Islands) can be visited together with local populations. That the Ministries of Foreign Affairs in one or both countries do not permit work on fish stocks straddling the marine frontier.
	2. Increase in the % of fisheries management decisions that are based on integrated information on multi-specific criteria and multi-disciplinary parameters, including natural and ENSO-related variability	Both Chile and Peru use single stock criteria for fisheries management, responses to ENSO are not precautionary but reactive	Meetings, both face to face and virtual, between IFOP and IMARPE in Chile and Peru co-funded by HCLME. Activity code: Budget: \$	Work has resumed on the shared anchovy fishery and scientific data is shared between the two countries using multi-specific criteria & multi-disciplinary parameters	Coordinated data collection plans for the two countries	
	3. Increased area of priority coastal, coastal-marine and marine habitats in Peru & Chile that are under some form of legal protection that contributes to biodiversity conservation.	The Peruvian Government Decree 024-2009 established a national Park covering 33 islands and capes and an area of 140,884ha Chile had 10% of its territory under Marine Park protection by 2012. A national park network organization is to be established by 2015.	Training courses delivered to project stakeholders at central and Provincial levels, Chile and Peru. To be fully aware of the threats to coastal and marine habitats as a start point for legal protection and EBM systems in existing National Parks – Marine Protected Areas. Activity Code: Budget: \$	Risk analysis and draft TDA established covering pilot site areas in Peru with a general concept nationwide. Baseline data for the Chilean Juan Fernandez Island pilot site completed.	SERNANP legal documents NPAPS – MPA implementation strategies for each country	
	4. Increase in the number of certifiable	The necessary conditions for certifying a fishery are	1. Activities in cooperation with WWF regional office Lima, MSC and SNP (Peru) re	1. Agreements with MSC, SNP and WWF as to the way forwards for the North Peru	Project reports	

GEF-Humboldt Project: 2012 baseline data with targets for year end and means of verification						
Project Strategy	Indicators	Baseline Value 2012	Activities Chile – Peru 2012	Targets at end of 2012	Sources of verification	Assumptions
	fisheries	not yet in place	<p>awareness raising about the Marine Stewardship Council (MSC) certification standard and recent Low Trophic Level requirements.</p> <p>2. Stakeholder meetings and e-mail exchanges together with WWF to list and rank possible fin and shellfish stocks as MSC certification options</p> <p>Activity code:</p> <p>Budget: \$</p>	<p>anchovy stock certification</p> <p>2. Fish and shellfish stocks with MSC certification possibilities identified in Chile and Peru</p>	MSC data	
	5. % increased awareness in identified target groups, of the benefits of applying EBM	After training courses 2011 & early 2012 Chile-Peru, 70% of stakeholders with a biological or fisheries management background are aware of the EMB concept. However amongst other stakeholder groups at the Provincial level the level of awareness is <5%	EBM training courses held at a number of venues at both central and Provincial levels	20% increase from the baseline value for each target group	Evaluation surveys at project start & end using agreed data on EBM definition	
Outcome 1: Planning and policy instruments for ecosystem-based management (EBM) of the	1. A Strategic Action Plan process initiated via EMB awareness raising, Risk Analysis and Ecosystem Diagnostic Analysis (EDA) developed based on updated ecosystem information endorsed by	A draft TDA-SAP document exists after a joint Chile-Peru activity early 2000s. 2003 TDA document approved. SAP not approved.		<p>Risk analysis process initiated at both national and provincial (pilot site) levels.</p> <p>TDA document from 2003 revised and updated</p>	<p>Risk analysis documentation</p> <p>Training course data</p> <p>TDA documentation</p>	The marine boarder dispute does not affect the binational dialogue process

GEF-Humboldt Project: 2012 baseline data with targets for year end and means of verification						
Project Strategy	Indicators	Baseline Value 2012	Activities Chile – Peru 2012	Targets at end of 2012	Sources of verification	Assumptions
HCLME are agreed and in place at regional and national levels	both countries	Limited understanding of EBM				
	2. National Action Plans (NAPs) developed within the SAP framework and approved in each country	There are no national plans to prioritize actions for HCLM management. Existing plans are sector based		NAP development process initiated for RNSIIPG in Peru Seabed resource management experiences gathered in Chile for application in both Chile and Peru	NAP & legal documents	
	3. % of the priority actions identified in plans that have secure financing: (a) regional level in SAP (b) national level in the NAP	(a) 0 (b) Peru =0 Chile =0		(a)N/A in 2012 (b) Peru =10% Chile =10%	NAPS & Public budget documents	
	4. Existence of short, medium and long-term targets for marine & coastal habitat conservation	National protected area system strategies do not have specific targets for coastal marine conservation		Targets available at pilot site level in at least one of the areas in each country	Reports on habitat conservation from each country	
	5. Number of sectors represented and level of officials that participate in the national inter-sectoral committees	At the Peruvian and Chilean National Intersectoral Committee meetings 29 and 17 stakeholders were identified respectively.		The numbers of sectors represented and levels when NIC are first formed, are maintained and strengthened throughout the project with a 10% increase in 2012: Peru & Chile	Minutes of the NIC meetings	
Outcome 2: Institutional	1. % of effective information exchanges in protocols defined within the framework of the Ecosystem Information	Currently, each government manages independent Geographical Information Systems (GIS) with		15% of protocols for information exchange are functioning at least at minimal levels	Examples of intersectoral data exchange	The will to share information between public institutions in public and private

GEF-Humboldt Project: 2012 baseline data with targets for year end and means of verification						
Project Strategy	Indicators	Baseline Value 2012	Activities Chile – Peru 2012	Targets at end of 2012	Sources of verification	Assumptions
capacities strengthened for SAP implementation and for up-scaling pilot interventions to the system level	System (EIS)	limited information exchange.				sectors at national and regional levels continues
	2. % of staff profiles and procedures that are aligned with EBM in key institutions (i.e., MME, MINAM, SUBPESCA, IFOP, IMARPE)	<10% of staff in IFOP, IMARPE have profiles aligned with needs for EBM		Staff profiles & procedures for EBM will be determined based on definitions and standards presented at the EBM training courses in 2011 and early 2012.	Capacity needs evaluations carried out on 2012 and repeated at the end of the project Research plans	
	3. Key institutions (MINAM, MME, SUBPESCA, PRODUCE), have the capacities and internal processes to prioritize the creation of new MPAs and to manage them effectively.	No baseline established for institutional capacity scorecard values applied to relevant institutions on each country		Baseline established with institutional capacity scorecard values applied to relevant institutions on each country	Institutional capacity scorecard for MPA adapted from UNDP capacity scorecard	
	4. Procedures defined and adopted to promote good fisheries practices and improve market competitiveness within the framework of the HCLME	There are incipient procedures for promoting good fisheries practices in relation to market competitiveness in each country. e.g. SPFRMO		At least one mechanism is adopted to promote good practices and improve market competitiveness within the framework of the HCLME	Project reports; legal documents and evaluations reports on impact of mechanisms	
	5. Improved understanding of the benefits of ecosystem goods and services of artisanal fisher representatives that participate in fisheries fora	No baseline exists. It is evident that some fisher reps are aware of a range of ecosystem goods and services but do not have a clear holistic view.		Baseline level of understanding of ecosystem benefits in will be established in 2012	Awareness evaluation survey applied at beginning and end of project	

		GEF-Humboldt Project: 2012 baseline data with targets for year end and means of verification																																				
Project Strategy	Indicators	Baseline Value 2012	Activities Chile – Peru 2012	Targets at end of 2012	Sources of verification	Assumptions																																
	<i>(as a proxy indicator of potential compliance with regulatory frameworks)</i>																																					
Implementation of priority MPA & fisheries management tools provides knowledge of options for enhanced protection of HCLME and SAP implementation	1. Advances in adopting EBM for the shared anchovy stock as measured by the increase in agreed on and coordinated program of activities	For the last 2 years IFOP and IMARPE have not been exchanging information formally on stock evaluations and reproductive parameters for main pelagic commercial stocks		Data exchange re-established	Legal documents – IMARPE and IFOP procedures	The current commitment to international cooperation maintains at least the same level as project start																																
	2. Adoption of coordinated management measures for the shared stock, such as closures, quotas and exclusion areas	Each country uses independent criteria for managing their part of the shared stock.		Under the SPRFMO scientific working group, countries use the same criteria for establishing TACs. Work towards closed season agreements	Project reports and legal documents																																	
	3. Increase in hectares of the coastal-marine interface under improved management - measured by RNSIIPG Master Plan and the tools for monitoring and management effectiveness measurement	<table border="1"> <thead> <tr> <th rowspan="2">Pilot site</th> <th colspan="6">METT Score by Cat.</th> <th rowspan="2">Total METT Score</th> <th rowspan="2">% of total</th> </tr> <tr> <th>Context</th> <th>Planning</th> <th>Inputs</th> <th>Processes</th> <th>Output</th> <th>Outcomes</th> </tr> </thead> <tbody> <tr> <td>RNSIIPG</td> <td>2</td> <td>6</td> <td>5</td> <td>7</td> <td>0</td> <td>2</td> <td>22</td> <td>22%</td> </tr> <tr> <td>Max score</td> <td>3</td> <td>24</td> <td>21</td> <td>39</td> <td>3</td> <td>9</td> <td>99</td> <td></td> </tr> </tbody> </table> <p>RNSIIPG was established in 2009 and came into force in 2010. Capes and islands of the guano systems are currently managed from an extractive perspective only targeting guano birds as conservation priorities worthy of protection.</p>	Pilot site	METT Score by Cat.						Total METT Score	% of total	Context	Planning	Inputs	Processes	Output	Outcomes	RNSIIPG	2	6	5	7	0	2	22	22%	Max score	3	24	21	39	3	9	99			RNSIIPG Management Plan process initiated at the three pilot sites in Peru	RNSIIPG Management Effectiveness monitoring system
Pilot site	METT Score by Cat.						Total METT Score	% of total																														
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	4. Identification of equivalency in conservation management options (PAs) for coastal and marine environments in both countries	Peru has no specific protected area categories for marine areas, but uses terrestrial categories, that follow a gradient from direct to indirect resource use – with no fully intangible protected areas. Chile has three categories for marine areas (Marine Reserves, Marine Parks and MUMPAS). These management schemes and categories are not equivalent for both countries		Protected Area resource use categories are established for at least one pilot area in Peru and a draft plan is available for the Juan Fernandez Islands.	SNAP & SINANPE documentation	
	5. Number of best management practices developed in the project pilot sites that are up-scaled to other protected areas	0		a) Peru: initiate the process of management committee establishment with associated plans b) Chile: Juan Fernandez Islands in the process of management option development	a) Management plans of the pilot sites b) Project reports	
Outcome 4: Implementation of pilot MPAs that underpin ecosystem conservation and	1. Increase in management effectiveness of the pilot MPAs measured a) in Peru with a) Management Plans b) b) with the	(a) 3 pilot areas in Peru do not have management plans; in Chile only specific fisheries (orange roughy) are currently managed in sea mounts (b) METT values	(a)	(b) Peru: Initiate management plan development at the 3 pilot sites (c) Chile Ecosystem-based management strategy development initiated for Juan Fernandez Islands with	GEF Management Effectiveness Tracking Tool (METT) applied at mid-term and end	Options pre-identified for financial sustainability of MPA prove to be effective

GEF-Humboldt Project: 2012 baseline data with targets for year end and means of verification

Project Strategy	Indicators	Baseline Value 2012	Activities Chile – Peru 2012	Targets at end of 2012	Sources of verification	Assumptions																																																			
resilience	<p>Declaration of the area in Chile</p> <p>c)Management effectiveness tracking tool (METT)</p> <p>METT Poor= < 25%; Fair=26–50%;, Good= 51–76%;; Excellent= 77–100%</p>	<p><u>Peru</u></p> <table border="1"> <thead> <tr> <th rowspan="2">Pilot site</th> <th colspan="6">METT Score by Cat.</th> <th rowspan="2">Total METT Score</th> <th rowspan="2">% of total</th> </tr> <tr> <th>Context</th> <th>Planning</th> <th>Inputs</th> <th>Processes</th> <th>Outputs</th> <th>Outcomes</th> </tr> </thead> <tbody> <tr> <td>Lobos de Tierra</td> <td>2</td> <td>6</td> <td>4</td> <td>7</td> <td>0</td> <td>7</td> <td>26</td> <td>27%</td> </tr> <tr> <td>Pta. San Juan</td> <td>2</td> <td>6</td> <td>10</td> <td>15</td> <td>0</td> <td>7</td> <td>40</td> <td>42%</td> </tr> <tr> <td>Islas Ballestas</td> <td>2</td> <td>6</td> <td>4</td> <td>8</td> <td>1</td> <td>7</td> <td>28</td> <td>29%</td> </tr> <tr> <td>Max score</td> <td>3</td> <td>24</td> <td>21</td> <td>36</td> <td>3</td> <td>9</td> <td>96</td> <td></td> </tr> </tbody> </table> <p><u>Chile</u></p> <p>Seamount 1& 2 METT 5/63 = 8% Poor</p>	Pilot site	METT Score by Cat.						Total METT Score	% of total	Context	Planning	Inputs	Processes	Outputs	Outcomes	Lobos de Tierra	2	6	4	7	0	7	26	27%	Pta. San Juan	2	6	10	15	0	7	40	42%	Islas Ballestas	2	6	4	8	1	7	28	29%	Max score	3	24	21	36	3	9	96			<p>relevant stakeholders</p> <p>(d) METT values</p>		
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	<p>2. Reduction in the incidence of illegal extractive activities in restricted areas established in the management plans of RNSIIPG pilot sites</p>	<p>No. of reports of illegal extractive activities will be measured</p>		<p>Initiate the process of pilot site zoning</p>	<p>Reports presented to local Peru port authorities (DICAPI) at each location</p>																																																				
	<p>3. % management costs of the pilot areas protected that have secure financing</p> <p>(a) RNSIIPG pilots</p> <p>(b) Seamounts</p>	<p>As the RNSIIPG have only recently been established and the Seamount MPA have not been established there are currently no specific management costs.</p>	<p>a)</p>	<p>b) The process of RNSIIPG pilots management cost estimation has been started and possible funding options from those that use the resource: AGRORURAL; Fisherfolk, Tourists etc. both public and private are identified.</p> <p>c) An analysis of Seamount management costs has been assessed for one site.</p>	<p>Pilot area management plan financial section and budget reports</p>																																																				

GEF-Humboldt Project: 2012 baseline data with targets for year end and means of verification						
Project Strategy	Indicators	Baseline Value 2012	Activities Chile – Peru 2012	Targets at end of 2012	Sources of verification	Assumptions
	4. Ecosystem-based management strategy for sea canyons agreed on by the relevant stakeholders	No specific plans for sea canyons exist		Baseline data collected	Project reports	
	5. Populations of flagship species at pilots	Population levels (distribution and abundance) not fully completed.		Identification of key biological indicator and flagship species carried out for three pilot sites in Peru and the Juan Fernandez Islands in Chile	Flagship species population censuses at project start & end	

QUESTIONS	ORGANIZATION/PROJECTS		
	HELCOM (Baltic Sea Marine Environment Protection Commission)	UNEP Nairobi Convention Secretariat	OSPAR Commission
1. Does the programme carry out regular state of the marine environment reporting? Which form is such an assessment developed?	<p>1. -HELCOM has published state of environment reports since 1980s: http://www.helcom.fi/stc/files/Publications/Proceedings/bsep17a.pdf http://www.helcom.fi/stc/files/Publications/Proceedings/bsep35a.pdf http://www.helcom.fi/stc/files/Publications/Proceedings/bsep54.pdf http://www.helcom.fi/stc/files/Publications/Proceedings/bsep64a.pdf http://www.helcom.fi/stc/files/Publications/Proceedings/bsep82a.pdf http://www.helcom.fi/stc/files/Publications/Proceedings/bsep87.pdf http://meeting.helcom.fi/c/document_library/get_file?p_l_id=79889&folderId=377779&name=DLFE-36817.pdf</p>	<p>3. -In accordance to Article 23² of the Nairobi Convention, the Contracting Parties are obliged to transmit regularly to the Secretariat, information on the measures adopted to implement the Convention and its Protocols. Through designated focal points, each contracting party reports to the Secretariat for the Nairobi Convention regularly during the meeting of focal points held at least once every year. The consolidated report is then presented by the Secretariat for the Nairobi Convention to the Conference of Parties held every two years for their consideration and action.</p> <p>4.</p>	<p>5. - The Convention for the Protection of the Environment of the North-East Atlantic (OSPAR Convention) requires, in its Article 6 and Annex IV that “<i>the Contracting Parties shall, in accordance with the provisions of the Convention, in particular as provided for in Annex IV:(a) undertake and publish at regular intervals joint assessments of the quality status of the marine environment and of its development, for the maritime area or for regions or sub-regions thereof; (b) include in such assessments both an evaluation of the effectiveness of the measures taken and planned for the protection of the marine environment and the identification of priorities for action.</i>”. The 2000 Quality</p>

² Article 23: Transmission of Information

	<p>http://www.helcom.fi/stc/files/Publications/Proceedings/bsep116A.pdf http://www.helcom.fi/stc/files/Publications/Proceedings/bsep120A.pdf http://www.helcom.fi/stc/files/Publications/Proceedings/bsep122.pdf</p> <p>Pollution load reports: http://www.helcom.fi/stc/files/Publications/Proceedings/bsep20.pdf http://www.helcom.fi/stc/files/Publications/Proceedings/bsep45.pdf http://www.helcom.fi/stc/files/Publications/Proceedings/bsep70.pdf http://www.helcom.fi/stc/files/Publications/Proceedings/bsep93.pdf http://www.helcom.fi/stc/files/Publications/Proceedings/bsep100.pdf http://www.helcom.fi/stc/files/Publications/Proceedings/bsep108.pdf http://www.helcom.fi/stc/files/Publications/Proceedings/BSEP128A.pdf</p> <p>2.</p>		<p>Status Report was published as a set of 6 reports³, the most recent 2010 Quality Status Report was a single report with more attention to web-based access of both the main report and the underlying contributing assessments⁴. The planned 2017 Intermediate Assessment will be articulated around Contracting Parties agreed ‘common indicators’ (and to the extent possible ‘priority candidate indicators’) in the run-up to their⁵ 2018 updating of the Marine Strategy Framework Directive Art. 8 assessment. The next comprehensive OSPAR Quality Status Report is provisionally planned for 2021.</p>
<p>2. Any indicator systems devised for carrying out the marine environment reporting?</p>	<p>6. - Since 2009, the state of environment reports were based on integrated indicator-based assessments. These were done for eutrophication, hazardous substances and biodiversity.</p> <p>7. In 2013 HELCOM adopted core indicators which are a set of quantitative indicators to be used by all countries in the assessments. Core indicators will be regularly updated by all countries and published online on the HELCOM web site.</p> <p>8. The core indicators will be integrated by specific HELCOM assessment tools, which were already used in the previous assessments but need revision</p>	<p>- As per decision ‘CP6/1: <i>Implementing the Work Programme and Budget 2008-2011</i>’ the Contracting Parties requested the Secretariat for the Nairobi Convention to provide by the end of 2010 with a template for compiling country reports. During COP7 held in December 2012, the Secretariat for the Nairobi Convention presented to the COP7 a draft National Reporting template for their consideration and adoption. The national reporting template was adopted and the Contracting Parties in decision CP7/5: ‘Strengthening National Reporting’ agreed to use the template to report to the Secretariat and</p>	<p>10. - Traditionally OSPAR has not articulated its monitoring and assessment activities around the ‘indicator’ notion (but rather on a basis in which parameter monitoring data and other information would be combined into more integrated assessments), but this is now changing. The OSPAR Commission and its Secretariat have been preparing over the last two years the existing regularly reported data streams for more extensive use, including in the context of OSPAR Assessment Sheets and in indicators, i.e. ‘smaller units of assessment’. The OSPAR Commission meeting of 24-28 June 2013 agreed a first</p>

³http://www.ospar.org/content/content.asp?menu=00650830000000_000000_000000

⁴<http://qsr2010.ospar.org/en/index.html>

⁵10 OSPAR Contracting Parties are EU Member States bound by the MSFD.

	<p>before the next assessment round.</p> <p>9. HELCOM also uses other indicators (than core indicators): Baltic Environment Fact Sheets report of hydrography, pollution sources, non-indigenous species, sub-regional phenomena and some semi-quantitative indicators.</p>	<p>Contracting Parties progress made in implementation of the Convention and its protocols.</p>	<p>set of common indicators and of candidate indicators (see attachment). Indicators will become a more important component of the Joint Assessment and Monitoring Programme (JAMP), which is OSPAR's umbrella programme for such activities. The next JAMP is due to be adopted by OSPAR 2014 and should cover the period from 2014 until the next QSR (2021).</p>
<p>3. What indicators are being used and how were they selected?</p>	<p>11. - HELCOM core indicators were developed in the HELCOM CORESET project, which was a coordination project among national experts of the nine contracting parties. The core indicators were based on common principles which were first agreed in HELCOM. These state that core indicators should be quantitative, reflect anthropogenic pressures or measure a pressure, have a quantitative threshold level for good environmental status, be scientifically sound, apply to the entire region and have policy relevance.</p> <p>12. Detailed description of the selection procedure is given in the interim report of the CORESET project (HELCOM 2012: http://www.helcom.fi/stc/files/Publications/Proceedings/bsep129A.pdf).</p>	<p>- The Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern Africa Region (Nairobi Convention)</p> <p>Protocol for the protection of the marine and coastal environment of the Western Indian Ocean from land-based sources and activities' (LBSA Protocol)</p> <p>The Strategic Action Programme for the protection of the coastal and marine environment of the Western Indian Ocean from Land-based sources and activities (SAP)</p> <p>The Nairobi Convention and its protocols including the WIO-SAP provides the mandate upon which the contracting parties develop indicators and targets upon which the government's aim to achieve for sustainable use of the marine and coastal resources in the western Indian Ocean region.</p>	<p>13. The selection of the first set of common indicators was done on the basis of selection criteria applied to monitoring parameters that could be used in the context of 'good environmental status' (either its determination or as a tool to evaluate progress towards) and an important factor was the degree (sub-)regional transboundary interest.</p>
<p>4. Do you have specific programme targets and objectives?</p>	<p>14. - HELCOM has a vision, four strategic goals and ecological objectives. The core indicators were developed to answer to the ecological objectives. The core indicators have quantitative threshold levels which indicate whether the desired state has been maintained or achieved.</p>	<p>15. - Yes</p> <p>16. The 'Protocol for the protection of the marine and coastal environment of the Western Indian Ocean from land-based sources and activities' (LBSA Protocol) requires the contracting parties to establish permissible limits, environmental quality standards and environmental quality</p>	<p>22. - The objective of environmental monitoring and assessment is described Convention Art. 6 and Annex IV. The purpose of the Quality Status Report is to report on progress made in the implementation of the Convention and the North-East Atlantic Environment Strategy (adopted by the OSPAR Commission at</p>

		<p>objectives, management practices and measures within a period of three years from the date of entry into force. Further, the LBSA protocol urges the contracting parties to adopt common guidelines, standards or criteria concerning the identification, prevention, mitigation or where feasible, elimination of pollution or degradation of the marine and coastal environment of the protocol area.</p> <p>17. The contracting parties to the Nairobi Convention in 2010 also adopted a Strategic Action Programme for the protection of the coastal and marine environment of the Western Indian Ocean from Land-based sources and activities (SAP). The overall regional vision of the SAP is ‘People of the region prospering from a healthy Western Indian Ocean’. This overall vision is supported by four main objectives that are intended to be achieved by the year 2035. This includes:</p> <p>18. Objective A: Critical coastal habitats in the WIO region protected, restored and managed for sustainable use by the year 2035;</p> <p>19. Objective B: Water quality in the WIO region meets international standards by the year 2035;</p> <p>20. Objective C: River flows in the WIO region are wisely and sustainably managed by the year 2035;</p> <p>21. Objective D: By 2015, stakeholders will collaborate effectively at the regional level in addressing transboundary challenges;</p>	<p>ministerial level in September 2010). A set of ‘ecological quality objectives’, originally adopted under the Ministerial North Sea Conferences, is still being mainstreamed into the overall OSPAR monitoring and assessment approach. The level of commitment (aspirational / legally binding) varies across different contexts. The ‘good environmental status’ objective of the EU MSFD is a driver for development of assessment methods and criteria, as this is a legally binding objective (subject to MSFD-internal qualifications).</p>
5. Are there indicators/indices to monitor the progress of achieving these targets/objectives?	-HELCOM core indicators. See above	-Yes	- Indeed, see answer 4. However, indicators in themselves are not sufficient to describe or understand progress

<p>6. Are the information on indicators collected periodically? How often? Are they included on a specific database? URL?</p>	<p>-HELCOM monitoring and Assessment Strategy: http://www.helcom.fi/groups/monas/en_GB/Draft_MonitoringStrategy_2013/ 23. includes a six-year assessment cycle. Therefore each core indicator must be assessed at least once in six years to give input to integrated assessments. Depending on core indicators, the frequency of updating varies from 1 to 6 years, most core indicators are updated annually. 24. Baltic Environment Fact Sheets are updated mainly annually. 25.</p>	<p>26. - Yes 27. Periodic assessments are conducted by the Contracting parties to the Nairobi Convention during the preparation of the National State of the Coast reports while thematic assessment reports are generated by different taskforces. An example is the regional and national synthesis reports on the use of birds as indicators of ecosystem health, among others. 28. The data and information generated during the preparation of these reports are available in the Nairobi Convention Clearinghouse and Information Sharing System accessible on: http://gridnairobi.unep.org/CHMPortal/ptk and the reports are accessible on: http://www.unep.org/NairobiConvention/</p>	<p>29. - Most data streams have an annual reporting requirement. For agreed common indicators which are based on existing OSPAR coordinated monitoring, there are agreed reporting procedures for Contracting Parties to submit data annually to the qualified data centres. Raw data are not always published as such, but will inform an assessment or a fact sheet. 30. Access to OSPAR data is signposted on the OSPAR website⁶.</p>
<p>7. Are the indicators working? How well, using the targets and indicators? Can they be amended?</p>	<p>31. - In principle each core indicator has been tested against real data and time series. The main difficulty is to judge whether the dynamics is caused by anthropogenic pressures or natural variation and where to place the threshold for good environmental status (GES). The expert groups responsible for the core indicators are tasked to evaluate the performance of the core indicators and the GES thresholds and adjust them if necessary.</p>	<p>32. - Yes 33. The findings from the assessment report on the use of birds as indicators of ecosystem health provided baseline data and information that informed the decision by the Contracting Parties to the Nairobi Convention to propose a review of the <i>'Protocol Concerning Protected Areas and Wild Fauna and Flora in the Eastern African Region'</i>.</p>	<p>34. - Technically, and in so far that OSPAR monitoring and assessment in the past was not indicator-based, OSPAR indicators are not yet 'working'. The (expected or actual) performance of indicators will be part of the discussion during development and will also be examined alongside their application. As any activity, monitoring and assessment activities also lead to 'learning by doing' and hence changes can be made as necessary. The decision basis of the indicators is quite flexible (a so-called 'agreement' in OSPAR, not a formal Recommendation or Decision) so that the set of indicator or the technical description of indicators can be amended at the Committee or OSPAR Commission level.</p>
<p>8. Are there constraints on the</p>	<p>35. - Although the development of the</p>	<p>-Yes. Financial constraints deter the</p>	<p>37. - The cost of marine monitoring</p>

⁶http://www.ospar.org/content/content.asp?menu=0151140000000_000000_000000

selection and use of indicators?	<p>core indicators started on a scientific basis, the economic reality was kept in mind when suggesting them. Most of the indicators are therefore based on traditional monitoring activities and not targeted to note small-scale pollution sources or pressures.</p> <p>36. -However, there is a process to test how well remote sensors or automatic buoys could be used to replace ship-based monitoring.</p>	<p>contracting parties of the NAIROBI Convention from underatking regular periodic reviews of the indicators as may be required.</p>	<p>programmes is a significant current concern in many OSPAR Contracting Party and this has been an important factor in the decision making process so far. Some indicators may require (a combination of) (1) expensive sampling or observation platforms and equipment; (2) highly specialised analytical or observation equipment; (3) highly qualified personnel. Another limiting factors is that the scale at which any of these can apply limit the application of ‘economies of scale’ and progressive cost-reduction with upscaling of operation. This is an area of great current concern in several European starting and on-going projects with which OSPAR has links.</p>
9. Do you have a summary of data collection? What is the URL?	<p>- The new HELCOM Monitoring and Assessment Strategy was accepted in June 2013. It is available on the HELCOM web site: http://www.helcom.fi/groups/monas/en_GB/Draft_MonitoringStrategy_2013/ The HELCOM Contracting Parties report the monitoring data to International Council for the Exploration of the Seas (ICES) which is the datahost to HELCOM and the data is available on their web site http://www.ices.dk/marine-data/dataset-collections/Pages/HELCOM.aspx Also the HELCOM data and map service: http://www.helcom.fi/GIS/en_GB/HelcomGIS/ Gives a summary {and real data} of the monitoring data</p>	<p>38. - No 39. However, all data collected or generated during the preparation of various reports for the Nairobi Convention are available in the Nairobi Convention Clearinghouse and information sharing system accessible at: http://gridnairobi.unep.org/CHMPortal/ptk</p>	<p>40. Sea website data page</p>
10. Is there a database of the information collected? What is the URL?	<p>-See answer to Q9</p>	<p>41. -Nairobi Convention Clearinghouse and Information Sharing system: http://gridnairobi.unep.org/CHMPortal/ptk</p>	<p>-see website data page</p>
11. Do you use global datasets?	<p>-No</p>	<p>Examples</p>	<p>-For issues of global interest (e.g. MPAs,</p>

Which one? What for? What does it in from?		<p>UNEP Global Environment Outlook (EO) Data Portal – Used for integrated environmental assessments and is accessible on http://geodata.grid.unep.ch/;</p> <p>The IUCN Red List – to track status of endangered or threatened flag ship species in the WIO coastal and marine environment</p> <p>UNEP Global Resource and Information Database (GRID) -Environmental alerts and atlases</p> <p>UNEP World Conservation Monitoring Centre (WCMC) – information on biodiversity and ecosystems</p>	ocean acidification), on-going developments of data management take account of the global context. Conversely, where global datasets are available that can aid in OSPAR monitoring and assessment activities, the experts involved in the OSPAR work will endeavour to take this into account
12. Indicate partners in the development and monitoring of indicators	<p>-ICES</p> <p>-EMEP (the European Monitoring and Evaluation Programme</p>	<p>-Ministries of Environment for all contracting parties of the Nairobi Convention (Comoros, France (Reunion), Kenya, Madagascar, Mauritius, Mozambique, Seychelles, South Africa and Tanzania)</p> <p>-Western Indian Ocean Marine Science Association (WIOMSA)</p> <p>-Wildlife Conservation Society (WCS)</p> <p>Indian Ocean Commission (IOC)</p> <p>-International Union for Conservation of Nature (IUCN)</p> <p>-World Wildlife Fund (WWF)</p> <p>-CORDIO</p>	- The main partners in development are the experts in the OSPAR Contracting Parties, and for some organisations with which OSPAR has cooperation agreements, such as the International Council for the Exploration of the Sea (ICES)
13. Any additional information			42. -The main development at present relates to the identification of common indicators (OSPAR 2013 adopted a first list) which is the main vehicle for allowing ‘double use’ of monitoring and assessment work between OSPAR and the EU’s Marine Strategy Framework Directive.

