



GEF LME:LEARN

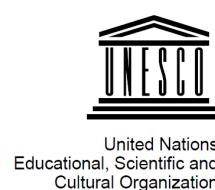
LARGE MARINE ECOSYSTEMS

DATA AND INFORMATION FROM THE GEF LARGE MARINE ECOSYSTEM PORTFOLIO

*Metadata catalogue of available GEF
marine project data and information*



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Intergovernmental
Oceanographic
Commission

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<http://marine.iwlearn.net>

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List of Acronyms

AFD	Agence Francaise du Development
AMAP	Arctic Monitoring and Assessment Programme
ASCLME	Agulhas and Somali Currents Large Marine Ecosystem
BALTFISH	Baltic Sea Fisheries Forum
BCLME	Benguela Current Large Marine Ecosystem
BOBP-IGO	Bay of Bengal Programme Inter-Governmental Organization
BSC	Black Sea Commission
BSEC	Organization of the Black Sea Economic Cooperation
CBD	Convention on Biological Diversity
CCAMLR	Commission for the Conservation of Antarctic Marine Living Resources
CCLME	GEF Canary Current Large Marine Ecosystem project
CEP	Caribbean Environment Programme
CERMES	Centre for Resource Management and Environmental Studies
CLME	Caribbean and North Brazil Shelf Large Marine Ecosystem
COBSEA	East Asian Seas Action Plan is steered by the Coordinating Body on the Seas of East Asia
CORDIO	Coastal Oceans Research and Development – Indian Ocean
CPPS	Permanent Commission for the South Pacific
CRFM	Caribbean Regional Fisheries Mechanism
CTI	Coral Triangle Initiative (GEF)
DIM WG	IW:LEARN Data and Information Working Group
EEA	European Environment Agency
EMODnet	European Marine Observation and Data Network
EU	European Union
FAO	Food and Agricultural Organization of the United Nations
GCLME	Guinea Current Large Marine Ecosystem
GEF	Global Environment Facility
GFCM	General Fisheries Commission for the Mediterranean
GOOS	Global Ocean Observing System
GIS	Geographic Information System
GWP-C	Global Water Partnership-Caribbean
GWP-Med	Global Water Partnership for the Mediterranean
HELCOM	Baltic Marine Environment Protection Commission - Helsinki Commission
ICES	International Council for the Exploration of the Sea
ICM	Integrated Coastal Management
ICPDR	International Commission for the Protection of the Danube River
ICZM	Integrated Coastal Zone Management
IMO	International Maritime Organization
IDB	Inter-American Development Bank

IOC-UNESCO	Intergovernmental Oceanographic Commission of the United Nations Educational, Scientific and Cultural Organization
IODE	International Oceanographic Data and Information Exchange programme of IOC-UNESCO
IUCN	International Union for Conservation of Nature
IW	International Waters
IW:LEARN	International Waters Learning Exchange and Resource Network
IWRM	Integrated Water Resources Management
LME	Large Marine Ecosystem
LME:LEARN	Large Marine Ecosystems Learning Exchange and Resource Network
MASPAWIO	Marine Spatial Atlas for the Western Indian Ocean project
MIO-ECSDE	Mediterranean Information Office for Environment, Culture and Sustainable Development
MOU	Memorandum of Understanding
MPA	Marine Protected Area
MSFD	EU Marine Strategy Framework Directive
NGO	Non-Governmental Organizations
NOAA	U.S. National Oceanic and Atmospheric Administration
NOWPAP	The Action Plan for the Protection, Management and Development of the Marine and Coastal Environment of the Northwest Pacific Region
ODINAFRICA	Ocean Data and Information Network of Africa
OECS	Organization of Eastern Caribbean States
OSPESCA	Central American Fisheries and Aquaculture Organization;
PAME	The Protection of the Arctic Marine Environment
PEMSEA	Partnerships in Environmental Management for the Seas of East Asia
PERSGA	Regional Organization for the Conservation of the Environment of the Red Sea and Gulf of Aden
PRCM	Regional Partnership for Coastal and Marine Conservation (West Africa)
SADCO	Southern African Data Centre for Oceanography
SAP	Strategic Action Programme
SEAFDEC	Southeast Asian Fisheries Development Centre
SDG	Sustainable Development Goal
SDS-SEA	Sustainable Development Strategy for Seas of East Asia
SEAFO	South East Atlantic Fisheries Organization
SEAFDEC	Southeast Asian Fisheries Development Centre
SEIS	Shared Environmental Information System
SPREP	Secretariat of the Pacific Environment Programme
SRFC	Sub regional Fisheries Commission (West Africa)
SWIOFC	South West Indian Ocean Fisheries Commission
TDA	Transboundary Diagnostic Analysis
TWAP	Transboundary Waters Assessment Programme
UfM	Union for the Mediterranean
UN	United Nations

UNDP	United Nations Development Programme
UNEP/MAP	UN Environment Mediterranean Action Programme
UNECA	United Nations Economic Commission for Africa
UNESCO-IHP	UNESCO International Hydrological Programme
WB	World Bank
WECAFC	Western Central Atlantic Fishery Commission
WIO-C	Western Indian Ocean Consortium of NGOs
WIOMSA	Western Indian Ocean Marine Science Organization

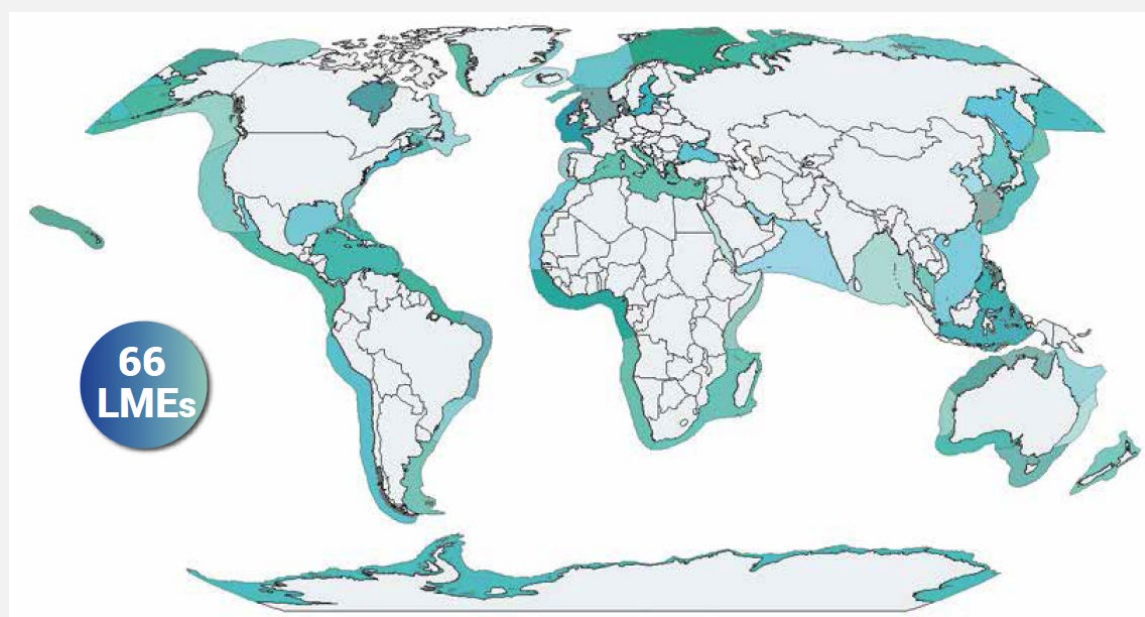
Introduction

The Global Environment Facility (GEF) is a global partnership among 183 countries, international institutions, non-governmental organizations (NGOs), and the private sector to address global environmental issues while supporting national sustainable development initiatives. It provides grants for projects related to six focal areas: biodiversity, climate change, international waters, land degradation, the ozone layer, and persistent organic pollutants. The GEF international waters focal area targets transboundary water systems, such as river basins with water flowing from one country to another, groundwater resources shared by several countries, or marine ecosystems bounded by more than one nation.

GEF LME:LEARN is a GEF/UNDP/IOC-UNESCO project designed to improve global ecosystem-based governance of Large Marine Ecosystems (LMEs) and their coasts by generating knowledge, building capacity, harnessing public and private partners and supporting south-to-south learning and north-to-south learning. A key element of this improved governance is main-streaming cooperation between LME, Marine Protected Area (MPA) and Integrated Coastal Management (ICM) projects in overlapping areas, both for GEF projects and for non-GEF projects.

Box 1 Large Marine Ecosystems and the GEF support

Large Marine Ecosystems (LMEs) are relatively large areas of ocean space of about 200,000 km² or more, adjacent to the continents in coastal waters and extending out seaward to the break or slope of the continental shelf or out to the seaward extent of a well-defined current system along coasts lacking continental shelves. The 66 LMEs were identified by the US National Oceanic and Atmospheric Administration (NOAA) to identify areas of the oceans for conservation purposes (<http://www.lme.noaa.gov>), and the GEF has been the main donor supporting countries to improve the management of their LMEs. In the last 20-25 years, since its creation, GEF has provided direct funding in the order of US\$800 Million to support this ecosystem-based management process globally (including the Ecosystem Approach to Fisheries) through a total of 97 projects, many of them sequential to the TDA-SAP and SAP implementation process. Information on the GEF LME related projects, along with guidance, tools and best-practices can be accessed through the GEF LME:Learn (<http://marine.iwlearn.net>) and GEF IW:Learn (<https://iwlearn.net>) project websites.



Map of the 66 LMEs, from the GEF LME:Learn LMEs and the Sustainable Development Goals brochure

Data and information play a crucial role in all phases of the policy cycle in international waters—from decision-making via implementation and monitoring, to analysis and recommendations. Data and information supports an understanding and greater awareness of environmental issues, causes, sources and impacts; it functions as an on-going component of the development and assessment of management policies, strategies and interventions; it promotes new legislative and policy initiatives for sustainable resource management and pollution prevention; and it facilitates improved enforcement, decision-making and individual action. In order to guide and support the data sharing on large marine ecosystems (as well as integrated coastal management and marine protected areas) for use by GEF LME:LEARN stakeholders and the wider public, the GEF LME:LEARN project supports a Data and Information Working Group (DIM WG).

In support of the DIM WG, this report provides information on current databases and GIS developed by the LME projects. This initial review of GEF International Waters (IW) portfolio is based on project information from:

- [IW:LEARN web site](#);
- [GEF Project database](#);
- [UNDP evaluation reports](#), [World Bank project database](#), and [UN Environment evaluation reports](#); and
- All project websites as listed in the table of project websites and links to information, data and GIS.

General information is presented below for each LME with regard to general governance and institutional setting including main regional organizations, and main databases, including Geographic Information Systems (GIS) currently available, supported through the GEF IW projects, but also including other key regional databases that the projects compliment. A full list of all GEF IW LME projects as listed in the IW:LEARN website (103 in total), with websites available, and links to key data and assessment reports, databases and GIS are available.

The information presented below is based on information available up to October 2018. Data and information management is rapidly evolving in many of the LME regions, and therefore this document will be updated on a systematic basis to include new information and projects and made available through the LMELEARN/IWLEARN websites.

1. Agulhas and Somali Currents

Governance/Institutional setting

The [Nairobi Convention](#), which was first signed in 1985 and entered into force in 1996, is part of UN Environments Regional Seas Programme. The programme aims to address the accelerating degradation of the world's oceans and coastal areas through the sustainable management and use of the marine and coastal environment. It does this by engaging countries that share the Western Indian Ocean in actions to protect their shared marine environment. The Contracting Parties to the Convention (Comoros, France, Kenya, Madagascar, Mauritius, Mozambique, Seychelles, Somalia, Tanzania and the Republic of South Africa) are part of more than 143 countries that participate in 18 Regional Seas initiatives.

Other key regional and national organizations include:

- The [South West Indian Ocean Fisheries Commission](#) (SWIOFC);
- The [Indian Ocean Tuna Commission](#);
- The [Sustainable Seas Trust](#);
- The [African Union Economic Commission](#);
- The [Western Indian Ocean Marine Science Organization](#) (WIOMSA);
- The [East African Wild Life Society](#);
- The [Coastal Oceans Research and Development – Indian Ocean](#) (CORDIO) East Africa;
- The [Indian Ocean Commission](#);
- The [Western Indian Ocean Consortium of NGOs](#) (WIO-C); and
- The [United Nations Economic Commission for Africa](#) (UNECA).

Status of the Transboundary Diagnostic Analysis (TDA) and Strategic Action Programmes (SAP): The Agulhas and Somali Currents Large Marine Ecosystems Project (ASCLME) [TDA](#) was adopted in 2012 and the [SAP](#) in 2015.

Key databases

Supported by a GEF LME Project: The Nairobi Convention includes a clearing house mechanism of available reports, data and maps and undertook in 2015 a Regional State of the Coast Report for the Western Indian Ocean, with WIOMSA. The ASCLME project (*GEF ID 1462*) collaborated with the African Coastal Marine Atlas GIS (see <http://www.africanmarineatlas.org/>)

Additional initiatives and projects: In addition, a Marine Spatial Atlas for the Western Indian Ocean (MASPAWIO) has been developed with the support of Agence Francaise du Development (AFD), CORDIO, International Union for Conservation of Nature (IUCN) and WIOMSA¹.

¹ <http://maspawio.net/> and <http://cordioea.net/outputs-results/maspawio/gis/>

Project websites and links to information, data and GIS

GEF ID	Project title	Dates	IA	Project and other information websites	Databases, GIS and reports
AGULHAS AND SOMALI CURRENTS					
1. 533	Western Indian Ocean Islands Oil Spill Contingency Planning	1998-2004	WB	IW:LEARN - https://iwlearn.net/iw-projects/533	
2. 1082	Southwest Indian Ocean Fisheries Project – SWIOFP	2005-2011	WB	WB - http://projects.worldbank.org/P072202/south-west-indian-ocean-fisheries-project?lang=en IWLEARN - https://iwlearn.net/iw-projects/1082	Includes regional data gaps analysis and regional research plans prepared; vessel-times procured for stock assessments; regional fisheries databases operational and populated with new and historic data. Data/GIS not available online
3. 2098	Western Indian Ocean Marine Highway Development and Coastal and Marine Contamination Prevention Project	2007-2011	WB	WB - http://projects.worldbank.org/P078643/gef-western-indian-ocean-marine-highway-development-coastal-marine-contamination-prevention?lang=en IW:LEARN - https://iwlearn.net/iw-projects/2098	
4. 1247	Addressing Land-based Activities in the Western Indian Ocean (WIO-LaB)	2004-2010	UNEP	IW:LEARN - https://iwlearn.net/iw-projects/1247	TDA and SAP for the WIO (2009) Information Management Strategy for the Eastern African Coastal and Marine Environment Clearinghouse Mechanism An Assessment of the National Capabilities for Marine Pollution Regional State of the Coast Report: Western Indian Ocean Long-term monitoring protocol developed Available at IW:LEARN - https://iwlearn.net/iw-projects/1247

GEF ID	Project title	Dates	IA	Project and other information websites	Databases, GIS and reports
5. 1462	Programme for the Agulhas and Somali Current Large Marine Ecosystems: Agulhas and Somali Current Large Marine Ecosystems Project (ASCLMEs)	2006-2017	UNDP	Project website - http://www.asclme.org/ IW:LEARN: https://iwlearn.net/iw-projects/1462	TDA (2012) and SAP (2015) for the ASCLME - http://www.asclme.org/ National Diagnostic reports, data and information management plans, remote sensing data, cruises and ocean data -- http://www.asclme.org/data-and-information/access-data-and-information.html Metadata including cruise data in national nodes of Nairobi Convention GIS - http://www.africanmarineatlas.org/
6. 3138	Applying an Ecosystem-based Approach to Fisheries Management: Focus on Seamounts in the Southern Indian Ocean	2009-2012	UNDP	IW:LEARN - https://iwlearn.net/iw-projects/3138	
7. 5513	Western Indian Ocean Large Marine Ecosystems Strategic Action Programme Policy Harmonization and Institutional Reforms (SAPPHIRE)	2013-2018	UNDP	IW:LEARN - https://iwlearn.net/iw-projects/5513	
8. 4940	Implementation of the Strategic Action Programme for the Protection of the Western Indian Ocean from Land-based Sources and Activities (WIO-SAP)	2016-present	UNEP	IW:LEARN - https://iwlearn.net/iw-projects/4940	
9. 5905	First South West Indian Ocean Fisheries Governance and Shared Growth Project (SWIOFish 1)	2015-present	WB	WB - http://projects.worldbank.org/P132123/south-west-indian-ocean-fisheries-governance-shared-growth?lang=en IW:LEARN - https://iwlearn.net/iw-projects/5905	
10. 9692	Second South West Indian Ocean Fisheries Governance and Shared Growth Project (SWIOFish2)	2017-present	WB	WB - http://projects.worldbank.org/P153370?lang=en	

2. Arctic

Governance/Institutional setting

The [Arctic Council](#) is the leading intergovernmental forum promoting cooperation, coordination and interaction among the Arctic States, Arctic indigenous communities and other Arctic inhabitants on common Arctic issues, in particular on issues of sustainable development and environmental protection in the Arctic. The work of the Council is primarily carried out in six Working Groups:

- The [Arctic Contaminants Action Program](#);
- The [Arctic Monitoring and Assessment Programme](#);
- The [Conservation of Arctic Flora and Fauna Working Group](#);
- The [Emergency Prevention, Preparedness and Response Working Group](#);
- The [Protection of the Arctic Marine Environment](#) (PAME); and
- The [Sustainable Development Working Group](#).

Other relevant regional and national organizations and research centers include:

- The [Arctic Portal](#), a gateway to Arctic information and data on the internet;
- The [Arctic Centre, University of Lapland](#);
- The [Arctic Research Consortium of The United States](#);
- The [Byrd Polar Research Center](#), Ohio State University;
- The [Canadian Arctic Resources Committee](#);
- The [International Polar Foundation](#);
- The [Northern Alaska Environmental Center](#);
- The [Northern Institute for Environmental and Minority Law](#);
- The [Norwegian Scientific Academy for Polar Research](#);
- The [Pacific Arctic Group](#);
- The [Roald Amundsen Centre for Arctic Research](#); and
- The [Scott Polar Research Institute](#).

Status of TDA and SAP: The [Russian Arctic SAP](#) was adopted in 2009.

Key databases and project websites (see table)

Supported by a GEF LME Project: The [Arctic Monitoring and Assessment Programme](#) (AMAP) includes several data resources including the AMAP Maps and Graphics Database supported by the GEF². The Arctic council includes an [archive of all data and data management documents](#).

² See <https://www.amap.no/maps-and-graphics>

Project websites and links to information, data and GIS

GEF ID	Project title	Dates	IA	Project and other information websites	Databases, GIS and reports
ARTIC					
1. 807	Persistent Toxic Substances, Food Security, and Indigenous Peoples of the Russian North	2001-2005	UNEP	Project - https://www.amap.no/persistent-toxic-substances-pts IW:LEARN - https://iwlearn.net/iw-projects/807	Final report, data and maps - https://www.amap.no/documents/doc/persistent-toxic-substances-food-security-and-indigenous-peoples-of-the-russian-north.-final-report/795
2. 1164	Russian Federation - Support to the National Programme of Action for the Protection of the Arctic Marine Environment	2003-2011	UNEP	IW:LEARN - https://iwlearn.net/iw-projects/1164	SAP (2009) - https://iwlearn.net/iw-projects/1164
3. 4664	ARCTIC GEF-Russian Federation Partnership on Sustainable Environmental Management in the Arctic under a Rapidly Changing Climate (Arctic Agenda 2020)	2011-2016	UNEP	IW:LEARN - https://iwlearn.net/iw-projects/4664	
4. 4796	ARCTIC: Improvement of Environmental Governance and Knowledge Management for SAP-Arctic Implementation	2012-2017	UNEP	IW:LEARN - https://iwlearn.net/iw-projects/4796	

3. Baltic Sea

Governance/Institutional setting

The [Baltic Marine Environment Protection Commission - Helsinki Commission](#) (HELCOM) is the governing body of the Convention on the Protection of the Marine Environment of the Baltic Sea Area, known as the Helsinki Convention. The Contracting Parties are Denmark, Estonia, the European Union, Finland, Germany, Latvia, Lithuania, Poland, Russia and Sweden.

Other relevant regional organizations include:

- The [International Council for the Exploration of the Sea](#) (ICES) is an intergovernmental organization for enhanced ocean sustainability. ICES is a network of more than 4000 scientists from almost 300 institutes, with 1600 scientists participating in activities annually, to increase the scientific knowledge of the marine environment and its living resources and to use this knowledge to provide advice to competent authorities;
- The European Union (EU), in particular related to the Marine Strategy Framework Directive ([MSFD, 2008/56/EC](#)) and the [European Union Strategy for the Baltic Sea Region \(EUSBSR\)](#); and
- The [Baltic Sea Fisheries Forum](#) (BALTFISH) is a regional body providing a platform for discussion on important fisheries issues in the Baltic Sea. BALTFISH is based on the regionalization of the EU Common Fisheries Policy as referred to in the Basic Regulation and its main objective is to promote cooperation among fisheries administrations and other key stakeholders in developing sustainable fisheries in the Baltic Sea region.

Status of the TDA and SAP: A draft TDA was revised in 2003 and SAP in 2007 (supported through the WB-GEF projects) that were then further developed into the 2007 [Baltic Sea Action Plan](#), under implementation.

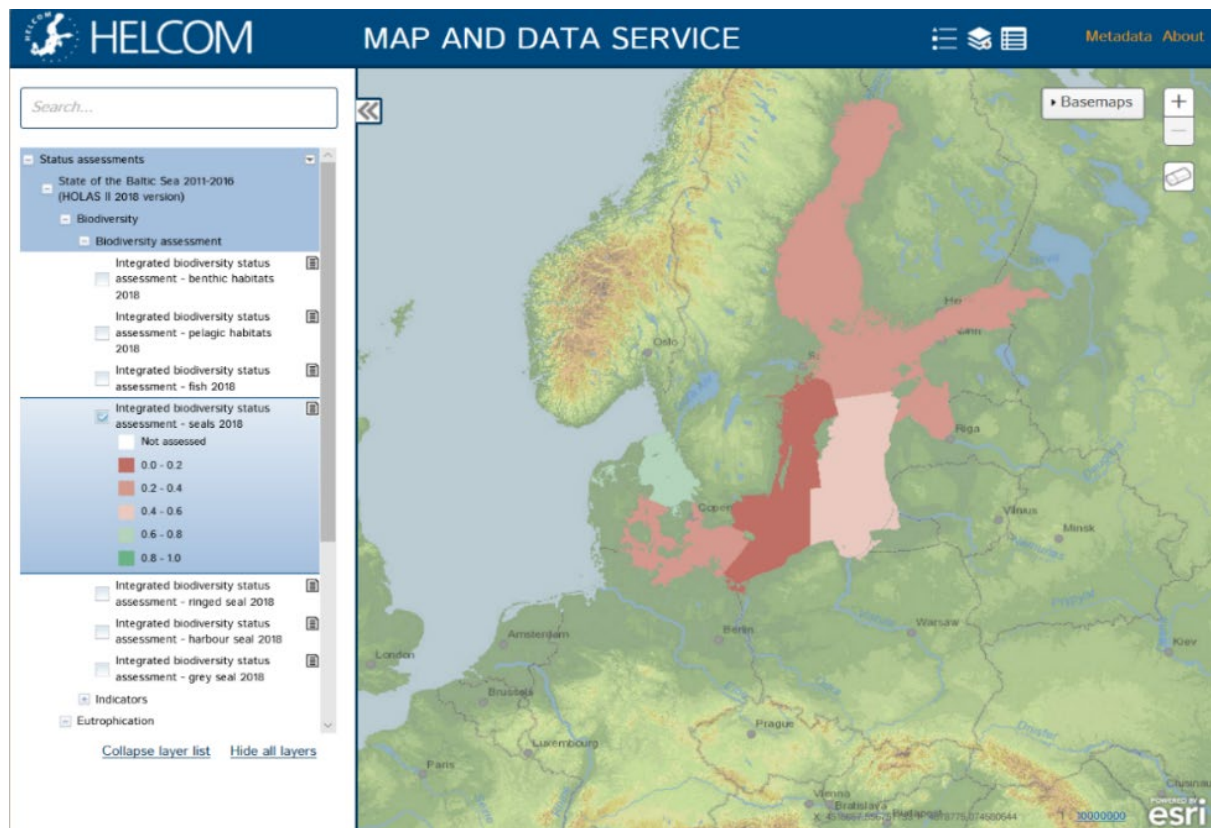
Key databases

Supported by a GEF LME Project: The table on project websites and links to information, data and GIS provides basic information for each of the 2 projects in the Baltic region with websites and available online data and spatial data portals and relevant reports. The Baltic Sea Regional Project in particular supported the institutional arrangements that are in place for joint monitoring, assessment and evaluation of living marine resources, which contributed to a number of assessments and the ICES database, data portal and GIS and the HELCOM Monitoring programme:

- ICES [data portals](#), [datasets](#), and [maps](#); and
- HELCOM assessments ([Baltic Sea Trends reports](#)), [data and maps](#), pollution loads and [development of indicators](#).

Additional initiatives and projects: Other sources of marine and coastal GIS and databases include [GRID-Arendal's Baltic GIS](#).

HELCOM Map and data service



See <http://maps.helcom.fi/website/mapservice/index.html>

Project websites and links to information, data and GIS

GEF ID	Project title	Dates	IA	Project and other information websites	Databases, GIS and reports
BALTIC SEA					
1. 922	Baltic Sea Regional Project, Tranche 1	2003 - 2007	WB	<p>World Bank project website http://projects.worldbank.org/P048795/baltic-sea-regional-gef-project-phase?lang=en&tab=overview</p> <p>IW: LEARN website https://iwlearn.net/iw-projects/922 http://archive.iwlearn.net/helcom.fi/</p>	<p>Data Portals - http://www.ices.dk/marine-data/data-portals/Pages/default.aspx</p> <p>Datasets - http://www.ices.dk/marine-data/dataset-collections/Pages/default.aspx</p> <p>Maps - http://www.ices.dk/marine-data/maps/Pages/default.aspx</p>
2. 531	Rural Environmental Project, Poland	1999-2004	WB	<p>World Bank project website http://projects.worldbank.org/P066199/rural-environment-project?lang=en</p> <p>IW:LEARN website: https://iwlearn.net/iw-projects/531</p>	

4. Bay of Bengal

Governance/Institutional setting

The [Bay of Bengal Programme Inter-Governmental Organization](#) (BOBP-IGO) was established with the support of the FAO's Bay of Bengal Programme, and currently includes Bangladesh, India, Maldives and Sri Lanka.

Other relevant regional organizations include:

- The [Coordinating Body on the Seas of East Asia](#) (COBSEA);
- The [South Asian Seas Programme](#);
- The [Southeast Asian Fisheries Development Center](#); and
- The [Asia-Pacific Fishery Commission](#).

Status of TDA and SAP: The Bay of Bengal [TDA](#) was adopted in 2012 and the [SAP](#) in 2015, and are under implementation with the support of GEF.

Key databases and project websites (see table)

Supported by a GEF LME Project: The [Bay of Bengal Large Marine Ecosystem project](#) (GEF ID 1252, 2008-2015), in addition to a project website with all project reports and deliverables, developed an [interactive online database portal](#) storing and providing access to up to date inventory of MPAs relevant to the Bay of Bengal LME and to a wider MPA community of practitioners (managers, researcher, policy makers, etc). Further work will be conducted through a new project for the sustainable management of Bay of Bengal from 2019 (GEF ID 9909).

Bay of Bengal MPA Atlas - <http://boblme.reefbase.org/>

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The Bay of Bengal Large Marine Ecosystem MPA Atlas

Home Countries Case Studies MPA Database Interactive Map Resources

About MPA Atlas of BOBLME

The MPA Atlas of BOBLME is an interactive online database portal storing and providing access to up to date inventory of MPAs relevant to the Bay of Bengal LME to a wider MPA community of practitioner (managers, researcher, policy makers, etc). Other information in this portal includes reports, review, case studies, scientific articles, maps etc.

This is a collaboration project between WorldFish and BOBLME Project funded by FAO. This portal was produced as part of the ongoing UN FAO's Bay of Bengal LME Ecosystem Programme. The programme is a regional initiative among the BOBLME countries. Maldives, India, Sri Lanka, Bangladesh, Myanmar, Thailand, Indonesia and Malaysia, have declared their willingness to work together through the Bay of Bengal Large Marine Ecosystem (BOBLME) Project and lay the

Interactive Map

View the MPA data in the Bay of Bengal region in the interactive map

MPA Database

Search a collection of MPA records in the Bay of Bengal region

Publications

Map Gallery

Image Gallery

Relevant Links

Project websites and links to information, data and GIS

GEF ID	Project title	Dates	IA	Project and other information websites	Databases, GIS and reports
BAY OF BENGAL					
1. 1252	Bay of Bengal Large Marine Ecosystem	2008-2015	FAO	Project website - http://www.boblme.org/ http://boblme.reefbase.org/ IWLEARN - https://iwlearn.net/iw-projects/1252	TDA (2012) and SAP (2015) - https://iwlearn.net/iw-projects/1252 Bay of Bengal Large Marine Ecosystem MPA Atlas - http://boblme.reefbase.org/ including interactive GIS map, MPA database, case studies and resources (publications, reports etc.)
2. 9909	Sustainable Management of the Bay of Bengal Large Marine Ecosystem Programme	2019-present	FAO	GEF: https://www.thegef.org/project/sustainable-management-bay-bengal-large-marine-ecosystem-programme	About to begin implementation

5. Benguela Current

Governance/Institutional setting

The [Benguela Current Commission](#) is a multi-sectoral inter-governmental, initiative of Angola, Namibia and South Africa. It promotes the vision of the Benguela Current Large Marine Ecosystem (BCLME) sustaining human and ecosystem well-being for generation after generation. The Commission was established on January 2007 through the signing of an Interim Agreement. Then, on 18 March 2013, the governments of Angola, Namibia and South Africa signed the Benguela Current Convention, a groundbreaking environmental treaty that entrenches the Benguela Current Commission as a permanent inter-governmental organization.

Other key regional organizations include:

- The Convention for Cooperation in the Protection, Management and Development of the Marine and Coastal Environment of the Atlantic Coast of the West, Central and Southern Africa Region ([Abidjan Convention](#));
- The [South East Atlantic Fisheries Organization](#) (SEAFO);
- The [Economic Commission for Africa](#) (UNECA); and
- Many pan-African organizations and regional and national NGOs.

Status of TDA and SAP: The Benguela Current TDA was revised and adopted in 2013, and the [SAP](#) was revised and adopted in 2014.

Key databases

Supported by a GEF LME Project: The table on project websites and links to information, data and GIS provides basic information for each of the 4 regional projects reviewed in the Benguela Current with websites and available online data and spatial data portals and relevant reports. The Benguela Current Commission agreed on a data management policy and protocol in 2012 and is in the process of developing a State of the Ecosystem Information System (SEIS), although current data and GIS maps are not available online except through its reports³. The current project (*GEF ID 5753*) will support countries to monitor and report and ensure SEIS is operational.

Additional initiatives and projects: In addition, other databases and reports not directly supported by GEF projects include:

- The [Ocean Data and Information Network of Africa](#) (ODINAFRICA);
- The [Marine Atlas Project](#), supported by the programme "International Oceanographic Data and Information Exchange" (IODE) of the "Intergovernmental Oceanographic Commission" (IOC) of UNESCO; and
- The [Southern African Data Centre for Oceanography](#) (SADCO).

³ See <http://www.benguelacc.org/index.php/en/data-and-information>

Project websites and links to information, data and GIS

GEF ID	Project title	Dates	IA	Project and other information websites	Databases, GIS and reports
BENGUELA CURRENT					
1. 2571	Distance Learning and Information Sharing Tool for the Benguela Coastal Areas (DLIST-Benguela)	2005-2008	UNDP	IW:LEARN - https://iwlearn.net/iw-projects/2571	
2. 789	Implementation of the Strategic Action Programme (SAP) Toward Achievement of the Integrated Management of the Benguela Current Large Marine Ecosystem (LME)	2002-2013	UNDP		TDA (1999) and SAP (2000) and revised SAP (2015-2019), State of Marine Environment Report 2014 - http://www.benguelacc.org/index.php/en/publication
3. 3305	Implementation of the Benguela Current LME Action Program for Restoring Depleted Fisheries and Reducing Coastal Resources Degradation	2009-2013	UNDP	Benguela Current Convention website - http://www.benguelacc.org/index.php/en/	BCLME data and information (not available online) http://www.benguelacc.org/index.php/en/data-and-information
4. 5753	Improving Ocean Governance and Integrated Management in the Benguela Current LME	2016-present	UNDP		

6. Black Sea

Governance/Institutional setting

The Commission on the Protection of the Black Sea Against Pollution (the [Black Sea Commission](#) or BSC) via its Permanent Secretariat is the intergovernmental body established in implementation of the Convention on the Protection of the Black Sea Against Pollution (Bucharest Convention) which entered into force in 1994, its Protocols and the Strategic Action Plan for the Environmental Protection and Rehabilitation of the Black Sea (latest version adopted in 2009) (see for all details of the Bucharest Convention and activities).

Other key regional organizations and agreements in the Black Sea include:

- The [International Commission for the Protection of the Danube River](#) (ICPDR) works to ensure the sustainable and equitable use of waters in the Danube River Basin, established to implement the Danube River Protection Convention;
- The [Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area](#) (ACCOBAMS), a legal conservation tool to reduce threats to cetaceans notably by improving current knowledge;
- The [Organization of the Black Sea Economic Cooperation](#) (BSEC) aiming at fostering interaction and harmony among its members, as well as to ensure peace, stability and prosperity, encouraging friendly and good-neighborly relations in the Black Sea region. BSEC serves as a forum for cooperation in a wide range of areas for its 12 Member States: Albania, Armenia, Azerbaijan, Bulgaria, Georgia, Greece, Moldova, Romania, Russia, Serbia, Turkey and Ukraine;
- The [Black Sea Memorandum of Understanding](#) (MOU) on Port State control is a system of harmonized inspection procedures designed to target sub-standards ships with the main objective being their eventual elimination;
- The [Black Sea NGO Network](#), established in 1998 for the decreasing environmental quality of the Black Sea and the need for the adoption of democratic values and practices in the Black Sea countries that follow the ideals of sustainability ; and
- The [General Fisheries Commission for the Mediterranean](#) (GFCM), which is a regional fisheries management organization to ensure the conservation and the sustainable use, at the biological, social, economic and environmental level, of living marine resources as well as the sustainable development of aquaculture in the Mediterranean and in the Black Sea.

Status of the TDA and SAP: The [Black Sea TDA](#) was revised and adopted in 2008 and the [Black Sea SAP](#) in 2009, under implementation by the Black Sea Commission.

Key databases

Supported by a GEF LME Project: The table on project websites and links to information, data and GIS provides basic information for each of the 13 projects (5 regional and 8 national) in the Black Sea region with websites and available online data and spatial data portals and relevant reports. In particular, the four Black Sea Regional projects, undertaken between 1992 and 2008, laid the ground for future management, monitoring and assessment of the Black Sea (within the framework of the Bucharest Convention) which are summarized in an [IW Results note](#) and include:

- The [Black Sea State of Environment Report](#) (2001-2006);

- The [Black Sea revised TDA](#) (2008) including GIS maps and data;
- The [Black Sea Integrated Monitoring and Assessment Programme](#) (BSIMAP) and the [Black Sea Information System](#) (BSIS);
- The [Black Sea Environmental Databases](#); and
- The [Black Sea GIS](#), which is currently in development.

The Danube River Basin produced a significant number of studies, including a Transboundary Analysis report with maps, data and graphics, a Strategic Action Plan for the Danube (1995-2005), a series of maps on land-use, population, hotspots and rivers and wetlands in addition to water quality model, which are all online⁴. This work was continued following project completion and contributed to the updated 2015 [Danube River Basin Management Plan Update and the Flood Risk Management Plan for the Danube River Basin](#), as well as contribution to the [Danube GIS](#) and [river basin quality database](#).

Additional initiatives and projects: In addition, other databases and reports not directly supported by GEF projects (supported by the EC and other donors) include:

- The “Building Capacity for a Black Sea Catchment Observation and Assessment System supporting Sustainable Development” - [EnviroGRIDS](#) project (2009-2013) which developed a [geonode and geoportal of GIS layers](#);
- The Enhancing monitoring in the Black Sea -[EMBLAS project](#) (2013-2018); and
- The [Black Sea Scene](#) meta data and data access project from 2009-2011.

⁴ See <https://www.icpdr.org/main/activities-projects/danube-pollution-reduction-programme>

Project websites and links to information, data and GIS

GEF ID	Project title	Dates	IA	Project and other information websites	Databases, GIS and reports
BLACK SEA (AND DANUBE RIVER BASIN)					
1. 397	Black Sea Environmental Management (BSEP)	1992-1996	UNDP	IW:LEARN website (https://iwlearn.net/iw-projects/397) GEF website:	State of Environment Report (2001-2006) http://www.blacksea-commission.org/publ-SOE2009.asp
2. 341	Developing the Implementation of the Black Sea Strategic Action Plan (BSSAP)	1997-2001	UNDP	Black Sea Commission (http://www.blacksea-commission.org/publ-BSSAPIMPL2002.asp) and IW-Learn (https://iwlearn.net/iw-projects/341)	Black Sea TDA (2008) including GIS maps and data https://iwlearn.net/documents/5301 Black Sea SAP (2009) - http://www.blacksea-commission.org/bssap2009.asp The Black Sea Integrated Monitoring and Assessment Programme (BSIMAP) - http://www.blacksea-commission.org/bsimap.asp
3. 1580	Control of Eutrophication, Hazardous Substances and Related Measures for Rehabilitating the BLACK SEA Ecosystem: Phase 1	2001-2004	UNDP	IW:LEARN website (https://iwlearn.net/iw-projects/1580)	Black Sea Information System (BSIS) - http://www.blacksea-commission.org/bsis-description.asp Black Sea Environmental Databases (http://www.blacksea-commission.org/datalinks.asp)
4. 2263	Control of Eutrophication, Hazardous Substances and Related Measures for Rehabilitating the Black Sea Ecosystem: Tranche 2	2004-2008	UNDP	IW:LEARN website: https://iwlearn.net/iw-projects/2263 http://archive.iwlearn.net/bsepr.org/	Black Sea GIS is currently in development - http://www.blacksea-commission.org/bsgis2.asp All results summarized at https://iwlearn.net/documents/7115
5. 342	Developing the Danube River Basin Pollution Reduction Programme	1997-2003	UNDP	ICPDR website (https://www.icpdr.org/main/activities-projects/danube-pollution-reduction-programme) IW:LEARN - https://iwlearn.net/iw-projects/342	Transboundary analysis report with maps, data and graphics Strategic Action Plan for the Danube (1995-2005) plus GIS maps and water quality model All available on project website Note: Danube River Basin Management Plan - Update 2015 (DRBM Plan) revised in 2015 ⁵ with updated maps ⁶ Danube GIS - https://www.danubegis.org/

⁵ <https://www.icpdr.org/main/management-plans-danube-river-basin-published>

⁶ <https://www.icpdr.org/main/publications/maps-danube-river-basin-district-management-plan-2015> and <https://www.icpdr.org/main/publications/maps-danube-flood-risk-management-plan-2015>

7. Canary Current

Governance/Institutional setting

The Convention for the Co-operation in the Protection and Development of the Marine and Coastal Environment of the West and Central African Region ([Abidjan Convention](#)) and its Action Plan were adopted by the Governments in 1981; the Convention entered into force in 1984. The Abidjan Convention covers the marine environment, coastal zones and related inland waters falling within the jurisdiction of the States of the West and Central African Region, from Mauritania to Namibia inclusive, which have become Contracting Parties to the Convention. The Abidjan Convention countries are: Angola, Benin, Cameroon, Cape Verde, Congo, Cote d'Ivoire, Democratic Republic of Congo, Equatorial Guinea, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mauritania, Namibia, Nigeria, Sao Tome and Principe, Senegal, Sierra Leone and Togo.

Other relevant regional organizations include:

- The [Regional Partnership for Coastal and Marine Conservation](#) (PRCM), a coalition of actors working on the problems of the West African coastline;
- The [Sub regional Fisheries Commission](#) (SRFC), covering all fisheries resources in Cabo Verde, Gambia, Guinea, Guinea-Bissau, Mauritania, Senegal and Sierra Leone.

Status of TDA and SAP: The Canary Current [TDA](#) and the [SAP](#) were adopted in 2016.

Key databases

Supported by a GEF LME Project: The Canary Current Large Marine Ecosystem (CCLME) project (*GEF ID 1909*), in addition to developing a TDA and SAP, with the support of [monitoring and assessment working groups](#) established and supported stock assessment and ecosystem surveys with the [EAF-Nansen project](#).

Additional initiatives and projects: Complementing the working undertaken in the CCLME project, the IOC-UNESCO has implemented the second phase of the project “Enhancing oceanography capacities on the Canary Current Large Marine Ecosystem's Western Africa countries”, including a GIS-based dynamic analytic tool ([CCLME Eco-GIS Viewer](#)) to create meaningful data products for the West Africa region. Also, the [Nairobi Convention clearinghouse](#) was developed, providing accurate and relevant data and information for improved management and protection of the coastal and marine environment in the Western Indian Ocean region.

Project websites and links to information, data and GIS

GEF ID	Project title	Dates	IA	Project and other information websites	Databases, GIS and reports
CANARY CURRENT					
1. 1909	Protection of the Canary Current Large Marine Ecosystem (LME)	2008-2014	FAO UNEP	Project - http://www.fao.org/in-action/canary-current-lme/en/ https://iwlearn.net/iw-projects/1909	Revised TDA and SAP (2016) - http://www.fao.org/in-action/canary-current-lme/documentation/tda-sap/en/ Monitoring and assessment working groups and capacity building in countries - http://www.fao.org/in-action/canary-current-lme/working-groups/en/ Stock assessment and Ecosystem surveys with the EAF-Nansen project - http://www.fao.org/in-action/eaf-nansen/en/
2. 9940	Towards Sustainable Management of the Canary Current Large Marine Ecosystem (CCLME) – Initial Support to SAP Implementation	2019-onwards	FAO	GEF - https://www.thegef.org/project/towards-sustainable-management-canary-current-large-marine-ecosystem-cclme—initial-support	To begin implementation from 2019

8. Caribbean Sea and North Brazil Shelf

Governance/Institutional setting

UN Environment established the [Caribbean Environment Programme](#) (CEP) in 1981 as one of its Regional Seas Programmes in recognition of the importance and value of the Wider Caribbean Region's fragile and vulnerable coastal and marine ecosystems including endemic plants and animals. Countries of the region then adopted an Action Plan (also in 1981) that led to the development and adoption of the Cartagena Convention on 24 March 1983. The Cartagena Convention promotes the protection and development of the marine environment of the Region and provides the legal framework for the CEP. It is supported by three technical agreements or protocols coordinated by dedicated regional activity centers for [Oil Spills](#), [Specially Protected Areas and Wildlife](#) and [Land-Based Sources of Marine Pollution](#).

Other regional organizations in the Caribbean and North Brazil Shelf include:

- The [Caribbean Community \(CARICOM\)](#) is an organisation of fifteen Caribbean nations and dependencies having primary objectives to promote economic integration and cooperation among its members, to ensure that the benefits of integration are equitably shared, and to coordinate foreign policy.
- The [Global Water Partnership-Caribbean](#) (GWP-C), committed to supporting Caribbean countries in the sustainable management of their water resources by fully promoting and applying Integrated Water Resources Management (IWRM) in the region;
- The [Gulf and Caribbean Fisheries Institute](#), to promote the exchange of current information on the use and management of marine resources in the Gulf and Caribbean region;
- The [Western Central Atlantic Fishery Commission](#) (WECAFC) to promote the effective conservation, management and development of the living marine resources;
- The [Caribbean Natural Resources Institute](#) (CANARI) which promotes and facilitates equitable participation and effective collaboration in the management of natural resources critical to development in the Caribbean islands;
- The [Organization of Eastern Caribbean States](#) (OECS) an International Inter-governmental Organization dedicated to economic harmonization and integration, protection of human and legal rights, and the encouragement of good governance among independent and non-independent countries in the Eastern Caribbean;
- The [IOC-UNESCO Sub-Commission for the Caribbean and Adjacent Regions](#) (IOCARIBE) responsible for the promotion, development and co-ordination of IOC marine scientific research programmes, the ocean services, and related activities;
- The [Centre for Resource Management and Environmental Studies](#) (CERMES);
- The [Central American Fisheries and Aquaculture Organization](#) (OSPESCA); and
- The [Caribbean Regional Fisheries Mechanism](#) (CRFM).

Status of the TDA and SAP: The Caribbean and North Brazil Shelf TDA was adopted in 2011 and the [SAP](#) in 2013.

Key databases

Supported by a GEF LME Project: The table on project websites and links to information, data and GIS provides basic information for each of the 13 projects in the region with websites and available online

data and spatial data portals and relevant reports. In particular the [Testing a Prototype Caribbean Regional Fund for Wastewater Management](#) (CREW) project (GEF ID 3766) undertook an analysis of all databases and GIS in relation to waste management (GEF CREW, 2015) in addition to national baseline assessments on wastewater status and management (including maps and data), plus regional reports on best practices and challenges. The Caribbean and North Brazil Shelf Large Marine Ecosystem, CLME+ project (GEF ID 5542) developed a [CLME+ knowledge hub](#) including the [Caribbean marine atlas for ICZM](#).

Caribbean Marine Atlas (CMA2) - <https://www.caribbeanmarineatlas.net/>

The [Integrating Watershed and Coastal Area Management](#) (IWCAM) project (GEF ID 1254) developed an IWCAM Atlas Report (UNEP GEF, 2012), including maps as well as a GEF-IWCAM Capacity Assessment of Geographic Information Systems Capabilities of the Caribbean (UNEP GEF, 2007).

Additional initiatives and projects: In addition, other databases not directly supported by GEF projects such as the [CEP clearing houses and databases](#):

- The [Caribbean Marine Protected Area Management](#) (CaMPAM), as well as the database of the areas listed under our [SPAW/Biodiversity Protocol](#);
- The [Marine Mammal Interactive Mapping Tool](#);
- The [Maritime Traffic in the Wider Caribbean Region](#) GIS; and
- The [Interactive map on current status of plastics bans](#); and
- The [CaribNode information system and GIS](#) (developed by the Nature Conservancy)

Regarding assessments, CEP is currently preparing a 2018 State of Convention Area Report. The previous reports include the CEP Assessment and Management of Environmental Pollution (AMEP) 2007-2008 Atlas (UNEP CEP, 2009), and the 2010 Technical Report 53 on pollutant loadings to the Caribbean Sea (UNEP CEP, 2010).

Project websites and links to information, data and GIS

GEF ID	Project title	Dates	IA	Project and other information websites	Databases, GIS and reports
CARIBBEAN SEA AND NORTH BRAZIL SHELF					
1. 59	Ship-Generated Waste Management	1995-2003	WB	IW:LEARN - https://iwlearn.net/iw-projects/59	No information
2. 585	Wider Caribbean Initiative for Ship-Generated Waste	1994-1998	WB	IW:LEARN - https://iwlearn.net/iw-projects/585	Monitoring and studies in support of MARPOL (<i>documents not available online</i>)
3. 837	Conservation and Sustainable Use of the Mesoamerican Barrier Reef System (MBRS)	2001-2006	WB	IW:LEARN - https://iwlearn.net/iw-projects/837	Developed and implemented a standardized regional monitoring and environmental information system for the MBRS (<i>documents not available online</i>)
4. 614	Demonstrations of Innovative Approaches to the Rehabilitation of Heavily Contaminated Bays in the Wider Caribbean	2002-2011	UNDP	IW:LEARN - https://iwlearn.net/iw-projects/614	
5. 1248	Reducing Pesticide Run-off to the Caribbean Sea	2003-2011	UNEP	Project - http://www.cep.unep.org/repicar IW:LEARN - https://iwlearn.net/iw-projects/1248	Developed Coastal Monitoring Programme on pesticides with list of pesticides, maps and publications (http://cep.unep.org/repicar/coastal-monitoring)
6. 963	Environmental Protection and Maritime Transport Pollution Control of the Gulf of Honduras	2005-2012	WB	IW:LEARN - https://iwlearn.net/iw-projects/963	Environmental Diagnostic Analysis (EDA) Gulf of Honduras and Strategic Action Plan (SAP) for the Gulf of Honduras (available on IW:LEARN website)
7. 1254	Integrating Watershed and Coastal Area Management (IWCAM) in the Small Island Developing States of the Caribbean	2006-2011	UNDP UNEP	http://www.cep.unep.org/iwcam IW:LEARN - https://iwlearn.net/iw-projects/1254	IWCAM Atlas Report, including maps ⁷ GEF-IWCAM Capacity Assessment of Geographic Information Systems Capabilities of the Caribbean (2007) ⁸

⁷ [https://wedocs.unep.org/bitstream/handle/20.500.11822/9251/-Integrated%20Watershed%20and%20Coastal%20Areas%20Management%20\(IWCAM\)%20Atlas-2012GEF%20IWCAM%20Atlas-%202012.pdf?amp%3BisAllowed=&sequence=3](https://wedocs.unep.org/bitstream/handle/20.500.11822/9251/-Integrated%20Watershed%20and%20Coastal%20Areas%20Management%20(IWCAM)%20Atlas-2012GEF%20IWCAM%20Atlas-%202012.pdf?amp%3BisAllowed=&sequence=3)

⁸ <http://cep.unep.org/iwcam/maps-and-gis/geographic-information-systems-gis/gef-iwcam-capacity-assessment-of-geographic-information-systems-capabilities-of-the-caribbean-final-september-2007/view>

GEF ID	Project title	Dates	IA	Project and other information websites	Databases, GIS and reports
8. 3766	Testing a Prototype Caribbean Regional Fund for Wastewater Management (CReW)	2011-2017	UNEP	Project - http://www.gefcrew.org/index.php IW:LEARN - https://iwlearn.net/iw-projects/3766	National baseline assessments on wastewater status and management (including maps and data), plus regional reports on best practices and challenges available at http://www.gefcrew.org/index.php/publications Including a regional report on the wastewater management platforms and databases ⁹
9. 1032	Sustainable Management of the Shared Marine Resources of the Caribbean Large Marine Ecosystem (CLME) and Adjacent Regions	2008-2013	UNDP	Project - https://www.clmeproject.org/ IW:LEARN - https://iwlearn.net/iw-projects/1032	TDA and CLME+SAP (2015-2025) - https://www.clmeproject.org/sap-overview/ CLME knowledge and data hub - https://clmeplus.org/ Caribbean marine atlas for ICZM and CLME+ - https://www.caribbeanmarineatlas.net/
10. 5542	Catalyzing Implementation of the Strategic Action Programme for the Sustainable Management of Shared Living Marine Resources in the Caribbean and North Brazil Shelf Large Marine Ecosystems (CMLE+)	2015-2018	UNDP	Project - https://www.clmeproject.org/ Knowledge hub - https://clmeplus.org/ IW:LEARN - https://iwlearn.net/iw-projects/5542	Ocean Health Index - http://www.oceanhealthindex.org/ CaribNode information system and GIS - http://www.caribnode.org/
11. 5304	Sustainable Management of Bycatch in Latin America and Caribbean Trawl Fisheries (REBYC-II LAC)	2015-2018	FAO	Project - http://www.fao.org/in-action/rebyc-2/en/ IW:LEARN - https://iwlearn.net/iw-projects/5304	Reports - http://www.fao.org/in-action/rebyc-2/resources/publications/en/
12. 9451	Caribbean Regional Oceanscape Project	2017-present	WB		Under implementation
13. 4932	Integrating Water, Land and Ecosystems Management in Caribbean Small Island Developing States (IWEco)	2015-present	UNEP	Project - http://www.iweco.org/	Field Data sheets developed - http://www.iweco.org/sites/default/files/2019-03/GEF_IWCAM_CBRA_Annex_field_data_sheets_April%202011.pdf Project monitoring dashboard included and publications

⁹ http://www.gefcrew.org/images/reports/project_final_reports/CRew_C2_Report_WastewaterManagementPlatforms_for_the_WCR_Final_2015.pdf

GEF ID	Project title	Dates	IA	Project and other information websites	Databases, GIS and reports
14. 9601	CRew+: An Integrated Approach to Water and Wastewater Management Using Innovative Solutions and Promoting Financing Mechanisms in the Wider Caribbean Region	2019-	UNEP	Project - http://www.gefcrew.org/	Concept approved
15. 9720	Developing Organizational Capacity for Ecosystem Stewardship and Livelihoods in Caribbean Small-Scale Fisheries (StewardFish)				
16. 10048	Water Funds A Conservation Climate Resilient Model for Stressed Watersheds in Latin America and the Caribbean	2019	IDB		

9. East Asian Seas (Indonesian Sea, Gulf of Thailand, Sulu-Celebes Sea, South China Sea, East China Sea, Yellow Sea)¹⁰

Governance/Institutional setting

The main regional organizations include:

- [Partnerships in Environmental Management for the Seas of East Asia](#) (PEMSEA) for effective management of coasts and oceans across the shared seas of East Asia¹¹;
- The [Action Plan for the Protection, Management and Development of the Marine and Coastal Environment of the Northwest Pacific Region](#) (NOWPAP), which covers China, Japan, Korea and Russia;
- The [Action Plan for the Protection and Development of the Marine Environment and Coastal Areas of the East Asian Seas Region](#) (the East Asian Seas Action Plan) which includes Indonesia, Malaysia, Philippines, Singapore, Thailand, Cambodia, People's Republic of China, Republic of Korea and Vietnam;
- The [Southeast Asian Fisheries Development Centre](#) (SEAFDEC), comprising 11 member countries: Brunei Darussalam, Cambodia, Indonesia, Japan, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam.

Status of TDA and SAP: TDAs and SAPs have been developed for the South China Sea and Gulf of Thailand - TDA (2000) and SAP (2008), the Yellow Sea - TDA (2007) and SAP (2009), and the Sulu-Celebes Sea (SAP in 2013).

Key databases

Supported by a GEF LME Project: In addition to the SAP implementation, several GEF IW projects supported implementation of the [Sustainable Development Strategy for Seas of East Asia](#) (SDS-SEA), adopted in 2003 and updated in 2015, with an agreed implementation plan for 2018-2022.. A full repository of all technical reports is available at the [PEMSEA website](#). Through the support of PEMSEA, an Integrated Information Management System (IIMS) and network linking ICM sites and pollution hotspots, including GIS have been developed in 2005 ([PEMSEA, 2005](#)), as well as experience note on the use of Data/Information in ICM ([PEMSEA, 2009](#)).

The “Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand” project (*GEF ID 885*), developed a [South China Sea GIS](#) and [repository of knowledge documents](#). Currently still under implementation, the “Establishment and Operation of a Regional System of Fisheries Refugia in the South China Sea and Gulf of Thailand” project (*GEF ID 5401*) has developed a knowledge portal on [Fisheries Refugia in the South China Sea](#), including maps and publications.

¹⁰ The majority of regional projects in the East Asian Seas include more than one LME region, and are therefore grouped together

¹¹ Cambodia, PR China, Indonesia, Japan, DPR Korea, Lao PDR, Philippines, RO Korea, Singapore, Timor-Leste, Vietnam

Also, in support of the Yellow Sea SAP implementation (GEF ID 4343), a Regional Working Group on Monitoring and Assessment Group was established (UNDP/GEF, 2017) including the establishment of a comprehensive regional monitoring system.

Additional initiatives and projects:

- NOWPAP has an established monitoring program with data and reports through its [Data and Information Network Regional Activity Center](#);
- SEAFDEC has several databases including the [Fishery Statistic in Southeast Asia](#), with statistics since 1976, and the [SEAFDEC Repository](#), the official institutional repository, containing publications and materials produced by SEAFDEC Secretariat and Departments; and
- PEMSEA has also developed regional, national and some local State of the Coasts reports which is useful as a planning and monitoring tool that countries use to map, measure and monitor the state of their marine ecosystems goods and services as well as develop policies and programs implementing blue economy approach. A SeaKnowledge Bank is also being used as an online interactive platform to manage and share knowledge about the coastal and marine initiatives in the EAS region (www.pemsea.org).

Project websites and links to information, data and GIS

GEF ID	Project title	Dates	IA	Project and other information websites	Databases, GIS and reports
EAST ASIAN SEAS (INDONESIAN SEA, GULF OF THAILAND, SULU-CELEBES SEA, SOUTH CHINA SEA, EAST CHINA SEA, YELLOW SEA)					
1. 396	Prevention and Management of Marine Pollution in the East Asian Seas ¹²	1993-1999	UNDP	Project - http://www.pemsea.org IW:LEARN - https://iwlearn.net/iw-projects/396	Developed a regional network of stations for marine pollution monitoring and information management. Report on Sharing Lessons and Experiences in Marine Pollution Management (1999) ¹³
2. 597	Building Partnerships for the Environmental Protection and Management of the East Asian Seas ¹⁴	1999-2006	UNDP	Project - http://www.pemsea.org IW:LEARN - https://iwlearn.net/iw-projects/597	Development of an Integrated Information Management System (IIMS) and network linking ICM sites and pollution hotspots, including GIS. Sustainable Development Strategy for Seas of East Asia (SDS-SEA) adopted in 2003 See http://www.pemsea.org/publications/reports
3. 790	Reducing Environmental Stress in the Yellow Sea Large Marine Ecosystem (YSLME) ¹⁵	2004-2011	UNDP	Project - IW:LEARN - https://iwlearn.net/iw-projects/790	Yellow Sea TDA (2007) and SAP (2009) Regional co-operative cruises were organized by the project. Through the surveys and observations of the cruises, new scientific data was collected, analyzed and published. See http://dinrac.nowpap.org/
4. 885	Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand (SCS) ¹⁶	2002-2009	UNEP	Project - http://www.unepscs.org/ IW:LEARN - https://iwlearn.net/iw-projects/885	TDA (2000) and SAP (2008) South China Sea GIS - http://gis.unepscs.org/ and Knowledge documents and GIS - http://www.unepscs.org/remository.html
5. 2188	East Asian Seas Region: Development and Implementation of Public Private	2004-2009	UNDP	Project - http://www.pemsea.org	Training on GIS and marine pollution monitoring

¹² East China Sea LME

¹³ <http://www.pemsea.org/publications/reports/sharing-lessons-and-experiences-marine-pollution-management>

¹⁴ Indonesian Sea (LME) , Gulf of Thailand (LME) , Sulu-Celebes Sea (LME) , South China Sea (LME) , East China Sea (LME) , Yellow Sea (LME)

¹⁵ Yellow Sea (LME)

¹⁶ Gulf of Thailand (LME) , South China Sea (LME)

GEF ID	Project title	Dates	IA	Project and other information websites	Databases, GIS and reports
	Partnerships in Environmental Investments ¹⁷			IW:LEARN - https://iwlearn.net/iw-projects/2188	Integrated Information Management System (IIMS) and network linking ICM sites and pollution hotspots, including GIS. IIMS User Manual (2005) ¹⁸ PEMSEA's Experience in the Use of Data/Information in ICM (2009) ¹⁹
6. 2454	World Bank/GEF Partnership Investment Fund for Pollution Reduction in the Large Marine Ecosystems of East Asia (Tranche 1 of 3 tranches) ²⁰	2005-present	WB	Project - http://www.pemsea.org IW:LEARN - https://iwlearn.net/iw-projects/2454	Waste management in key pollution hotspots
7. 2700	Implementation of Sustainable Development Strategy for the Seas of East Asia ²¹	2007-2012	UNDP	Project - http://www.pemsea.org IW:LEARN - https://iwlearn.net/iw-projects/2700	Knowledge and experience in innovative approaches to ecosystem-based management of watersheds, estuaries and the adjacent coastal seas, such as Chesapeake Bay, Seto Inland Sea, Bohai Sea, Manila Bay, Masan-Chinhae Bay and Jakarta Bay Report on "Implementation of the SDS-SEA 2003-2015" ²²
8. 2758	Coastal Cities Environment and Sanitation Project - under WB/GEF Partnership Investment Fund for Pollution Reduction in the LME of East Asia ²³	2005-2014	WB	Project - http://www.pemsea.org IW:LEARN - https://iwlearn.net/iw-projects/2758	Vietnam City of Quy in Binh Province into the Ha Thanh river and Thi Nai marine lagoon – wastewater treatment
9. 2750	Ningbo Water and Environment Project - under WB/GEF Partnership	2006-2011	WB	IW:LEARN - https://iwlearn.net/iw-projects/2750	Best practices in constructed wetland for municipal wastewater treatment

¹⁷ Indonesian Sea (LME) , Gulf of Thailand (LME) , Sulu-Celebes Sea (LME) , South China Sea (LME) , East China Sea (LME) , Yellow Sea (LME)

¹⁸ <http://pemsea.org/sites/default/files/IIMS%20User%20Manual.pdf>

¹⁹ <http://www.pemsea.org/publications/reports/pemseas-experience-use-datainformation-icm>

²⁰ Indonesian Sea (LME) , Gulf of Thailand (LME) , Sulu-Celebes Sea (LME) , South China Sea (LME) , East China Sea (LME) , Yellow Sea (LME)

²¹ Indonesian Sea (LME) , Gulf of Thailand (LME) , Sulu-Celebes Sea (LME) , South China Sea (LME) , East China Sea (LME) , Yellow Sea (LME)

²² <http://www.pemsea.org/publications/reports/regional-review-implementation-sustainable-development-strategy-seas-east-asi-0>

²³ Vietnam, South China Sea

GEF ID	Project title	Dates	IA	Project and other information websites	Databases, GIS and reports
	Investment Fund for Pollution Reduction in the LME of East Asia ²⁴				
10. 2759	Manila Third Sewerage Project (MTSP) - under WB/GEF Partnership Investment Fund for Pollution Reduction in the LME of East Asia ²⁵	2007-2014	WB	Project - http://www.pemsea.org IW:LEARN - https://iwlearn.net/iw-projects/2759	Wastewater management in Manila ²⁶ Report "Toward a Comprehensive Watershed Management Strategy for Manila Bay" ²⁷ Report "Total Pollutant Loading Study in the Laguna de Bay–Pasig River–Manila Bay Watershed" ²⁸
11. 2972	Liaoning Medium Cities Infrastructure - under WB/GEF Partnership Investment Fund for Pollution Reduction in the LME of East Asia ²⁹	2006-2011	WB	Project - IW:LEARN - https://iwlearn.net/iw-projects/2972	Landfill remediation and reduction of pollution to Bohai Sea (China) ³⁰
12. 2979	Second Shandong Environment - under WB/GEF Partnership Investment Fund for Pollution Reduction in the LME of East Asia ³¹	2007-2013	WB	Project - http://www.pemsea.org IW:LEARN - https://iwlearn.net/iw-projects/2979	
13. 3025	World Bank/GEF Partnership Investment Fund for Pollution Reduction in the Large Marine Ecosystems of East Asia (Tranche 1, Installment 2)	2007 - present	WB	Project - http://www.pemsea.org IW:LEARN - https://iwlearn.net/iw-projects/3025	
14. 3187	Demonstration of Sustainable Management of Coral Reef Resources in the Coastal Waters of Ninh Hai	2010-2013	UNEP	Project - http://www.vnio.org.vn/duanninhhai IW:LEARN - https://iwlearn.net/iw-projects/3187	Biological monitoring in 9 coral reefs

²⁴ China (East China Sea)

²⁵ Sulu-Celebes Sea (LME) , South China Sea (LME)

²⁶ <http://www.pemsea.org/our-work/pollution-and-waste-management/pollution-hotspots/manila-bay>

²⁷ <http://www.pemsea.org/publications/reports/toward-comprehensive-watershed-management-strategy-manila-bay>

²⁸ <http://www.pemsea.org/publications/reports/total-pollutant-loading-study-laguna-de-bay-pasig-river-manila-bay-watershed>

²⁹ China, East China Sea

³⁰ <http://www.pemsea.org/our-work/pollution-and-waste-management/pollution-hotspots/bohai-sea>

³¹ China, East China Sea

GEF ID	Project title	Dates	IA	Project and other information websites	Databases, GIS and reports
	District, Ninh Thuan Province, Viet Nam ³²				
15. 3188	Demonstration of Community-based Mgt of Seagrass Habitats in Trikora Beach East Bintan, Riau Archipelago Province, Indonesia ³³	2007-2010	UNEP	Project - IW:LEARN - https://iwlearn.net/iw-projects/3188	Establish an integrated management system for a total of 1,500 ha of the coastal and marine environment including seagrass and associated habitats
16. 3223	Shanghai Agricultural and Non-Point Pollution Reduction project (SANPR) - under WB/GEF Strategic Partnership Investment Fund for Pollution Reduction in the LME of East Asia ³⁴	2010-2013	WB	Project - http://www.pemsea.org IW:LEARN - https://iwlearn.net/iw-projects/3223	Measurements of nutrient pollution (i.e. TN, TP, BOD, COD and NH3-N).
17. 3524	CTI Sulu-Celebes Sea Sustainable Fisheries Management Project (SCS) ³⁵	2009-2014	UNDP	Project - http://archive.iwlearn.net/scfishproject.iwlearn.org/ IW:LEARN - https://iwlearn.net/iw-projects/3524	Sulu-Celebes Sea Large Marine Ecosystem TDA (2014) and SAP (2013) Knowledge documents and Fisheries assessments (population, dynamics)
18. 4343	UNDP/GEF Yellow Sea LME Phase II Project ³⁶	2014 - present	UNDP	Project - https://yslmeoproject.wixsite.com/phase2 IW:LEARN - https://iwlearn.net/iw-projects/4343	Regional Working Group on Monitoring and Assessment Group established (2017) ³⁷ including the establishment of a comprehensive regional monitoring system: develop regional monitoring strategies for N/P/Si changes, climate change, jellyfish blooms and HAB – NMEMC
19. 5401	Establishment and Operation of a Regional System of Fisheries Refugia in	2016- present	UNEP	Project - https://fisheries-refugia.org IW:LEARN - https://iwlearn.net/iw-projects/5401	The Fisheries Refugia Interactive Mapping Tool (http://refugia.unepscs.org/) and knowledge repository (https://fisheries-refugia.org)

³² Gulf of Thailand (LME) , South China Sea (LME)

³³ Gulf of Thailand (LME) , South China Sea (LME)

³⁴ China, East China Sea

³⁵ Sulu-Celebes Sea (LME)

³⁶ Yellow Sea

³⁷ https://docs.wixstatic.com/ugd/fdf002_328dd6a41ada4c99a314f437a30e4fce.pdf

GEF ID	Project title	Dates	IA	Project and other information websites	Databases, GIS and reports
	the South China Sea and Gulf of Thailand ³⁸				Distribution and Abundance of Fish Larvae in the Gulf of Thailand and South China Sea (with SEAFDEC) ³⁹ . SEAFDEC conducted a series of Marine Fisheries Resources Surveys from 1996-1999 in the Gulf of Thailand and South China Sea.
20. 5538	Implementing the Strategic Action Programme for the South China Sea ⁴⁰	2014-2019	UNEP	Project - IW:LEARN - https://iwlearn.net/iw-projects/5538	
21. 5768	Enabling Transboundary Cooperation for Sustainable Management of the Indonesian Seas	2016-2018	FAO	IW:LEARN - https://iwlearn.net/iw-projects/5768	

³⁸ Gulf of Thailand (LME) , South China Sea (LME)

³⁹ http://refugia.unepscs.org/Fisheries_Refugia_Information/About_Fisheries_Refugia/Fisheries_Refugia_Science_Programme.html

⁴⁰ Gulf of Thailand (LME) , South China Sea (LME)

10. Guinea Current

Governance/Institutional setting

The [Convention for the Co-operation in the Protection and Development of the Marine and Coastal Environment of the West and Central African Region](#) (Abidjan Convention) and its Action Plan were adopted by the Governments in 1981; the Convention entered into force in 1984. The Abidjan Convention covers the marine environment, coastal zones and related inland waters falling within the jurisdiction of the States of the West and Central African Region, from Mauritania to Namibia inclusive, which have become Contracting Parties to the Convention⁴¹.

The Gulf of Guinea Commission was established by the treaty signed in Libreville, Gabon, on 3 July 2001 by Angola, Congo, Gabon, Nigeria and Sao Tome and Principe. It consists of an institutional framework for cooperation amongst the countries bordering the Gulf of Guinea in order to defend their common interest and promote peace and socio-economic development. Cameroun and Democratic Republic of Congo joined the Gulf of Guinea Commission in 2008. Membership of Gulf of Guinea Commission is open to other states in the Gulf of Guinea region.

Status of TDA and SAP: The Guinea Current TDA was adopted in 2006 and the SAP in 2008.

Key databases

Supported by a GEF LME Project: The Guinea Current Large Marine Ecosystem project (*GEF ID 118*) in addition to the development of the TDA and SAP, also supported countries in the establishment of national GIS facilities and an Environmental Information Management System (EIMS), although currently not available online.

⁴¹ The Abidjan Convention countries are: Angola, Benin, Cameroon, Cape Verde, Congo, Cote d'Ivoire, Democratic Republic of Congo, Equatorial Guinea, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mauritania, Namibia, Nigeria, Sao Tome and Principe, Senegal, Sierra Leone and Togo.

Project websites and links to information, data and GIS

GEF ID	Project title	Dates	IA	Project and other information websites	Databases, GIS and reports
GUINEA CURRENT					
1. 393	Water Pollution Control and Biodiversity Conservation in the Gulf of Guinea Large Marine Ecosystem (GOGLME)	1994-1998	UNDP	IW:LEARN - https://iwlearn.net/iw-projects/393	The GOG LME supported National GIS facilities to improve and set up electronic data exchange facilities, and funded surveys of land-based sources of pollution with reports published from 5 countries and a report from an international consultant on urban waste management.
2. 1188	Combating Living Resource Depletion and Coastal Area Degradation in the Guinea Current LME through Ecosystem-based Regional Actions	2004-2011	UNEP	IW:LEARN - https://iwlearn.net/iw-projects/1188	TDA (2006) and SAP (2008) - https://iwlearn.net/iw-projects/1188 Marine Pollution monitoring manual - https://iwlearn.net/documents/28319
3. 9911	Strengthening of the Enabling Environment, Ecosystem-based Management and Governance to Support Implementation of the Strategic Action Programme of the Guinea Current Large Marine Ecosystem	2018 - present	UNEP	GEF: https://www.thegef.org/project/strengthening-enabling-environment-ecosystem-based-management-and-governance-support	To begin implementation in 2018

11. Gulf of Mexico

Governance/Institutional setting

UN Environment established the [Caribbean Environment Programme](#) (CEP) in 1981 as one of its Regional Seas Programmes in recognition of the importance and value of the Wider Caribbean Region's fragile and vulnerable coastal and marine ecosystems including endemic plants and animals. Countries of the region then adopted an Action Plan (also in 1981) that led to the development and adoption of the Cartagena Convention on 24 March 1983. The Cartagena Convention promotes the protection and development of the marine environment of the Region and provides the legal framework for the CEP. It is supported by three technical agreements or protocols coordinated by dedicated regional activity centers for [Oil Spills](#), [Specially Protected Areas and Wildlife](#) and [Land-Based Sources of Marine Pollution](#).

In addition to those organizations previously listed for the Caribbean Sea and North Brazil Shelf, other relevant regional and national organizations in the Gulf of Mexico include:

- The U.S. [National Oceanic and Atmospheric Administration](#) (NOAA);
- Several national institutions in Mexico including: the [Secretariat of Environment and Natural Resources of Mexico](#); the [National Aquaculture and Fishing Commission](#); the [National Commission of Natural Protected Areas](#); the [National Water Commission](#); the [National Fisheries Institute](#); the [National Forest Commission](#); and the [National Institute of Ecology and Climate Change](#).

Status of TDA and SAP: The Gulf of Mexico TDA was adopted in 2011 and the SAP in 2015.

Key databases

Supported by a GEF LME Project: The table on project websites and links to information, data and GIS provides basic information for each of the 2 projects which developed the TDA and SAP (2015) and established a standard Quality Assurance/Quality Control (QA/QC) monitoring protocol for measuring the ecosystem health. The key GIS databases and knowledge hubs listed under the previously presented "Caribbean Sea and North Brazil Shelf" project also include the Gulf of Mexico.

Additional initiatives and projects: NOAA with the support of UNESCO has established a [Gulf of Mexico data atlas](#), where data have been broken down into 6 categories: physical, biotic, living marine resources, socioeconomic conditions, environmental quality, and jurisdictions.

Project websites and links to information, data and GIS

GEF ID	Project title	Dates	IA	Project and other information websites	Databases, GIS and reports
GULF OF MEXICO					
1. 1346	Integrated Assessment and Management of the Gulf of Mexico Large Marine Ecosystem	2007-2013	UNDP	IW:LEARN - https://iwlearn.net/iw-projects/1346	TDA (2011) and SAP (2015) Establishment of a standard Quality Assurance/Quality Control (QA/QC) monitoring protocol for measuring the ecosystem health. An ecosystem-based fisheries model
2. 6952	Implementation of the Strategic Action Program of the Gulf of Mexico Large Marine Ecosystem	2014-2019	UNEP	Project – http://gomlme.iwlearn.org/en IW:LEARN - https://iwlearn.net/iw-projects/6952	

12. Humboldt Current

Governance/Institutional setting

The South-East Pacific Action Plan was adopted in 1981 together with the Convention for the Protection of the Marine Environment and Coastal Zones of the South-East Pacific (Lima Convention) and its associated protocols. The Action Plan is implemented within the framework of inter-agency cooperation between the [Permanent Commission for the South Pacific](#) (CPPS), UN Environment and some two dozen agencies, programmes and Convention Secretariats. A few years ago, the region signed an agreement with the [Secretariat of the Pacific Environment Programme](#) (SPREP), to cooperate in the protection of a more extensive area of the Pacific.

Other relevant regional and national organizations include:

- The [Fisheries Development Institute](#), Chile
- [Peru's Marine Institute](#); and
- The [Under-secretariat of Fisheries and Aquaculture of Chile](#).

Status of the TDA and SAP: The Humboldt Current TDA was adopted in 2015 and the SAP in 2016.

Key databases

Supported by a GEF LME Project: The initial Humboldt project (*GEF ID 3749*) focused on the TDA, SAP and measures to support MPA and fisheries management. CPPS has a monitoring program and annual regional oceanographic cruises ongoing for 14 years, as well as an atlas of metadata under development for different databases (distribution and whales, sharks and marine turtles,) oceanographic data from regional cruises, pollution, marine protected areas.

Project websites and links to information, data and GIS

GEF ID	Project title	Dates	IA	Project and other information websites	Databases, GIS and reports
HUMBOLDT CURRENT					
1. 3749	Towards Ecosystem Management of the Humboldt Current Large Marine Ecosystem	2010-2013	UNDP	Project - http://humboldt.iwlearn.org/en IW:LEARN - https://iwlearn.net/iw-projects/3749	TDA (2015) and SAP (2016) Information and publications (courses, publications and other documents) - http://humboldt.iwlearn.org/en/information-and-publication-1 (mainly in Spanish) Coastal and Marine spatial planning (with NOAA) and assessment ⁴²
2. 9592	Catalysing Implementation of a Strategic Action Programme for the Sustainable Management of Shared Living Marine Resources in the Humboldt Current System (HCS)	2018 - present	UNDP	No website	Project yet to begin implementation
3. 9124	Coastal Fisheries Initiative- Latin America	2017-present	UNDP	No website Information at http://www.fao.org/in-action/coastal-fisheries-initiative/projects/latin-america/en/	Project yet to begin implementation

⁴² <https://www.sciencedirect.com/science/article/pii/S2211464515300397>

13. Mediterranean Sea

Governance/Institutional setting

The Convention for the Protection of the Mediterranean Sea Against Pollution was signed on 16 February 1976 in Barcelona, Spain, and entered into force on 12 February 1978⁴³. This agreement was amended in June 1995, and renamed the [Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean](#) ("Barcelona Convention"); the amended version entered into force on 9 July 2004. Seven protocols, addressing specific aspects of Mediterranean environmental conservation, and a number of regional plans complete the UNEP/MAP legal framework. UNEP/MAP is supported by several regional activity centers.

Other relevant regional organizations in the Mediterranean Sea LME include:

- The Union for the Mediterranean (UfM) and the implementation of its [2014 Ministerial declaration on Environment and Climate Change](#);
- The [Global Water Partnership for the Mediterranean](#) (GWP-Med), engaged in several GEF funded projects;
- the [Mediterranean Information Office for Environment, Culture and Sustainable Development](#) (MIO-ECSDE) is a non-profit federation of 127 Mediterranean Non-Governmental Organizations (NGOs) working in the fields of environment and development in the Euro-Mediterranean area;
- the [MEDPAN organization](#) coordinates the network of Marine Protected Areas (MPA) managers, and close to 100 institutions and NGOs that either have direct responsibility for managing MPAs or are involved in the development of MPAs in the Mediterranean; and
- the [General Fisheries Commission for the Mediterranean](#) (GFCM), a regional fisheries management organization to ensure the conservation and the sustainable use, at the biological, social, economic and environmental level, of living marine resources as well as the sustainable development of aquaculture in the Mediterranean and in the Black Sea.

The Mediterranean Sea LME is particular in that it covers three regions (Africa, Europe and Asia), which creates challenges for coordination with regional offices.

Status of the TDA and SAP: The Mediterranean TDA was revised in 2005 and two SAPs were developed: the [SAP for the conservation of marine and coastal biodiversity](#) (SAP-BIO) in 2003 and the [SAP to address pollution from Land-based activities](#) (SAP-MED) in 2005, both of which are under implementation by UNEP/MAP with support from the GEF.

Key databases

Supported by a GEF LME Project: The table on project websites and links to information, data and GIS provides basic information for each of the 18 projects (11 regional and 7 national) in the Mediterranean Sea region with websites and available online data and spatial data portals and relevant reports. Some of the key data and GIS related deliverables include:

⁴³ The 22 Contracting Parties to the Barcelona Convention are: Albania, Algeria, Bosnia and Herzegovina, Croatia, Cyprus, Egypt, France, Greece, Israel, Italy, Lebanon, Libya, Malta, Monaco, Montenegro, Morocco, Slovenia, Spain, Syrian Arab Republic, Tunisia, Turkey, and the European Union.

- The [Mediterranean Integrated Climate Information Platform](#), developed during the “MED: Integration of Climatic Variability and Change into National Strategies to implement the ICZM Protocol in the Mediterranean” project (GEF ID 3990) in 2014, and not updated since 2015;
- The [Geo-referenced information system for coastal aquifers in the Mediterranean](#), developed by UNESCO International Hydrological Programme (UNESCO-IHP) developed during the “Strategic Partnership for the Mediterranean Large Marine Ecosystem--Regional Component: Implementation of agreed actions for the protection of the environmental resources of the Mediterranean Sea and its coastal areas” (GEF ID 2660)

Additional initiatives and projects: In addition, other databases and reports not directly supported by GEF projects include:

- UNEP/MAP’s Regional Activity Center [Biodiversity and MPAs data and reports](#);
- UNEP/MAP’s Regional Activity Center [ICZM Platform](#);
- UNEP/MAP’s Regional Activity Center [Mediterranean Integrated Geographical Information System on Marine Pollution Risk Assessment and Response](#);
- UNEP/MAP’s Regional Activity Center [Sustainable consumption and production reports](#);
- UNEP/MAP 2017 [Mediterranean Quality Status Report](#) available online;
- UNEP/MAP [Information and data portal](#) under construction;
- UNEP/MAP [MPA GIS database](#) under construction;
- European Environment Agency (EEA) [data and maps](#);
- The [European Marine Observation and Data Network](#) (EMODnet) monitoring data portals;
- [COPERNICUS Marine satellite data](#) and visualization tools; and
- The [Mediterranean Operational Network for the Global Ocean Observing System](#) (MONGOOS).

Project websites and links to information, data and GIS

GEF ID	Project title	Dates	IA	Project and other information websites	Databases, GIS and reports
MEDITERRANEAN					
1. 68	Oil Pollution Management Project for the Southwest Mediterranean Sea. Algeria, Morocco, Tunisia.	1992-2000	WB	IW:LEARN https://iwlearn.net/iw-projects/68 World Bank - http://projects.worldbank.org/P004871/mediterranean-pollution-contro?lang=en	Support to national monitoring, especially regarding oil pollution. Data and GIS at national level.
2. 461	Determination of Priority Actions for the Further Elaboration and Implementation of the Strategic Action Programme for the Mediterranean Sea	1998-2006	UNEP	General information and reports http://www.unepmap.org/	Transboundary diagnostic analysis (T.D.A.) for the Mediterranean Sea (2005) ⁴⁴ Strategic Action Plan for the conservation of marine and coastal biodiversity in the Mediterranean (SAP-BIO) ⁴⁵ Strategic action programme to address pollution from Land-based activities (SAP), 2003. ⁴⁶ Strategic Action Programme to Address Pollution from Land Based Activities (SAP-MED) and related National Action Plans (NAP) - Implementation Status 2000-2015 ⁴⁷
3. 2132	WB-GEF MED Neretva and Trebisnjica Management Project – under Investment Fund for the Mediterranean Sea LME Partnership	2008-2014	WB	http://projects.worldbank.org/P084608/neretva-trebisnjica-river-basin-management-project-bihcroatia?lang=en	Support to develop data and GIS system and GIS maps
4. 2600	Strategic Partnership for the Mediterranean Large Marine Ecosystem--Regional Component:	2008-2015	UNEP	General information and reports http://www.unepmap.org/	Geo-referenced information system for coastal aquifers in the Mediterranean -

⁴⁴ <https://wedocs.unep.org/bitstream/handle/20.500.11822/598/medtda.pdf?sequence=2&isAllowed=y>

⁴⁵ https://wedocs.unep.org/bitstream/handle/20.500.11822/5526/03ig15_09_eng.pdf?sequence=1&isAllowed=y

⁴⁶ https://wedocs.unep.org/bitstream/handle/20.500.11822/7343/97ig11_10_ann4_app2_sapmed_eng.pdf?sequence=1&isAllowed=y

⁴⁷ https://wedocs.unep.org/bitstream/handle/20.500.11822/9919/SAPMED_NAP_Implementation20002015_Eng.pdf?sequence=1&isAllowed=y

GEF ID	Project title	Dates	IA	Project and other information websites	Databases, GIS and reports
	Implementation of agreed actions for the protection of the environmental resources of the Mediterranean Sea and its coastal areas			<p>IW:Learn archive: http://archive.iwlearn.net/themedpartnership.org/</p> <p>ICZM Platform: Capacity building and training, projects and reports (http://iczmplatform.org/)</p> <p>ICZM related activities and reports (https://pap-thecoastcentre.org/projects/)</p> <p>MPA related activities and publications (http://www.rac-spa.org/medmpanet and http://www.rac-spa.org/publications)</p> <p>PCBs in the Mediterranean, training, reports and video's (http://pcbsmed.org/)</p> <p>Database of Mediterranean NGOs (http://mio-ecsde.org/ngos/)</p>	<p>http://www.inweb.gr/index.php?option=com_wrapper&view=wrapper&Itemid=220</p> <p>ICZM maps and data as part of all national demonstrations;</p> <p>MPA maps and data as part of demonstrations;</p>
5. 2602	Alexandria Coastal Zone Management Project (ACZM). Egypt.	2007-2015	WB	<p>WB project website http://projects.worldbank.org/P095925/alexandria-coastal-zone-management-project-under-investment-fund-mediterranean-sea-large-marine-ecosystem?lang=en</p>	National data
6. 3669	Second Natural Resources Management Project. Tunisia	2010-2013	WB	<p>WB project website http://projects.worldbank.org/P086660/tunisia-second-natural-resources-management-project?lang=en</p>	National data
7. 3725	Coastal Cities Pollution Control (APL 2). Croatia.	2006-2014	WB	<p>WB project website http://projects.worldbank.org/P102732/coastal-cities-pollution-control-project-2?lang=en</p>	National data

GEF ID	Project title	Dates	IA	Project and other information websites	Databases, GIS and reports
8. 3974	MED Greater Tunis Treated Wastewater Discharge in the Mediterranean Sea, Tunisia	2009-2015	WB		
9. 3977	MED Mediterranean Environmental Sustainable Development Program "Sustainable MED"	2009-2014	WB	IW:LEARN https://iwlearn.net/iw-projects/3977	
10. 3978	Regional Coordination on Improved Water Resources Management and Capacity Building. Horizontal Adaptable Programmatic Programme (H-APL)(TA) Algeria, Egypt, Lebanon, Libyan Arab Jamahiriya, Morocco, Mauritania, Tunisia.	2011-2014	WB	WB project website http://projects.worldbank.org/P117170/5m--regional-coordination-improved-water-resources-management-capacity-building-cooperation-nasa?lang=en	Development of an online national portal to share data across stakeholder institutions
11. 3990	MED: Integration of Climatic Variability and Change into National Strategies to implement the ICZM Protocol in the Mediterranean	2009-2015	UNEP	General information and reports http://www.unepmap.org/	Climate Variability Framework (UNEP/MAP, 2016) ⁴⁸ Mediterranean Integrated Climate Information Platform (MedICIP) - http://climvar.grid.unep.ch/ .
12. 3991	MED Enhanced Water Resources Management, Egypt	2012-2015	WB	WB project website http://projects.worldbank.org/P118090/eg-enhanced-water-resources-management?lang=en	National data
13. 3997	Albania - Improving Coverage and Management Effectiveness of Marine and Coastal Protected Areas	2009-2016	UNDP	http://mcpa.iwlearn.org/	GIS maps of protected areas available http://mcpa.iwlearn.org/protected-areas
14. 4001	MED: Sustainable Governance and Knowledge Generation	2012-2015	WB	WB project website http://projects.worldbank.org/P118145/regional-governance-knowledge-generation?lang=en and http://regoko.planbleu.org/en	Blue growth and economic assessments reports. Final report - http://regoko.planbleu.org/sites/default/files/upload/files/Final_Report_ReGoKo.pdf

⁴⁸ Available at https://wedocs.unep.org/bitstream/handle/20.500.11822/6103/16ig22_9_eng.pdf?sequence=1&isAllowed=y

GEF ID	Project title	Dates	IA	Project and other information websites	Databases, GIS and reports
15. 4198	MED Integrated Coastal Zone Management-Mediterranean Coast. Morocco.	2010-2016	WB	WB project website http://projects.worldbank.org/P121271/integrated-coastal-zone-management-mediterranean-coast?lang=en http://www.medcoast.net/	National data
16. 5269	Adriatic Sea Environmental Pollution Control Project (I). Bosnia and Herzegovina, Croatia	2013-2016	WB	WB project website http://projects.worldbank.org/P143921/?lang=en&tab=overview	Environmental assessment and management plans
17. 9545	Implementation of Ecosystem Approach in the Adriatic Sea through Marine Spatial Planning	2018-present	UNEP	Project in preparation	Project approved
18. 9607	Mediterranean Sea Programme (MedProgramme): Enhancing Environmental Security	2019-present	UNEP	Project in preparation	Concept approved
19. 9670	Enhancing Regional Climate Change Adaptation in the Mediterranean Marine and Coastal Areas	2019-present			Concept approved

14. Patagonian Shelf

Governance/Institutional setting

The Patagonian Shelf LME for Argentina and Uruguay includes the following regional organizations:

- The [Administrative Commission for the Río de la Plata](#) ;
- The Bi-national Technical Commission for the Maritime Front; and
- The [Commission for the Conservation of Southern Bluefin Tuna](#).

Status of TDA and SAP: The Patagonian Shelf TDA was adopted in 2006 and the SAP in 2007.

Key databases

Supported by a GEF LME Project: Following adoption of the TDA and SAP, the FrePlata II project (*GEF ID 3519*) developed a [Bi-national Monitoring Program and the Integrated Information System](#) ⁻⁴⁹ and the [FrePlatta II GIS](#) (Uruguay).

⁴⁹ See monitoring plan at <http://www.dinama.gub.uy/freplata/wp-content/uploads/2015/01/Programa-Binacional-Monitoreo-nov-2014-CD.pdf>

Project websites and links to information, data and GIS

GEF ID	Project title	Dates	IA	Project and other information websites	Databases, GIS and reports
PATAGONIAN SHELF					
1. 613	Environmental protection of the Rio de la Plata and its Maritime Front: Pollution Prevention and Control and Habitat Restoration (FREPLATA)	1999-2008	UNDP	IW:LEARN: https://iwlearn.net/iw-projects/613	TDA (2006) and SAP (2007) - https://iwlearn.net/iw-projects/basins/lmes/patagonian-shelf
2. 3519	Reducing and Preventing Land-based Pollution in the Rio de la Plata/Maritime Front through Implementation of the FrePlata Strategic Action Programme	2009-2014	UNDP	IW:LEARN - https://iwlearn.net/iw-projects/3519	FrePlata II Bi-national Monitoring Program and the Integrated Information System - http://www.dinama.gub.uy/freplata/ ⁵⁰ FrePlata II GIS (Uruguay)- http://mapas.ambiente.gob.ar/?idarticulo=12854 Cleaner production plans

⁵⁰ See monitoring plan at <http://www.dinama.gub.uy/freplata/wp-content/uploads/2015/01/Programa-Binacional-Monitoreo-nov-2014-CD.pdf>

15. Red Sea

Governance/Institutional setting

The [Regional Organization for the Conservation of the Environment of the Red Sea and Gulf of Aden](#) (PERSGA) is an intergovernmental body dedicated to the conservation of the coastal and marine environments found in the Red Sea, Gulf of Aqaba, Gulf of Suez, Suez Canal, and Gulf of Aden surrounding the Socotra Archipelago and nearby waters. PERSGA's member states include: Djibouti, Egypt, Jordan, the Kingdom of Saudi Arabia, Somalia, Sudan and Yemen.

Status of the TDA and SAP: The SAP for the Gulf of Aden was adopted in 1998

Key databases

Supported by a GEF LME Project: PERSGA through the GEF IW projects is supporting national monitoring and the establishment of a [monitoring programme, database and GIS](#), in addition to the publication of [technical reports and assessments](#).

Project websites and links to information, data and GIS

GEF ID	Project title	Dates	IA	Project and other information websites	Databases, GIS and reports
RED SEA					
1. 72	Gulf of Aqaba Environmental Action Plan	1996-2002	WB	Project - http://www.aqabazone.com/ IW:LEARN: https://iwlearn.net/iw-projects/72	
2. 340	Implementation of the Strategic Action Programme for the Red Sea and Gulf of Aden	1999-2005	WB	Project - http://www.persga.org IW:LEARN: https://iwlearn.net/iw-projects/340	Implementation of the 1998 SAP PERSGA database and GIS Technical status reports - http://www.persga.org/inner.php?id=145
3. 3809	Red Sea and Gulf of Aden Strategic Ecosystem Management	2013-2017	WB	Project - http://sem.persga.org/ IW:LEARN: https://iwlearn.net/iw-projects/3809	Reports and guidelines - http://sem.persga.org/page-reports-and-guidelines.php Global Environmental Objective Indicators (on fisheries and MPAs) - http://sem.persga.org/page-Project-Results-Framework.php Monitoring program, training and intercalibration

16. Coral Sea & Coral Triangle Initiative (CTI)

Governance/Institutional setting

The main two regional organizations include:

- The [Coral Triangle Initiative](#) on Coral Reefs, Fisheries, and Food Security (CTI-CFF). The members include: Indonesia, Malaysia, Papua New Guinea, Philippines, Solomon Islands and Timor-Leste;
- Coral Triangle Center, a non-profit organization based in Bali with a regional scope and global impact which provides education and training to make sure that marine protected areas within the Coral Triangle are managed effectively; and
- The [Southeast Asian Fisheries Development Centre](#) (SEAFDEC), to promote and facilitate concerted actions among the Member Countries to ensure the sustainability of fisheries and aquaculture in Southeast Asia.

Key databases

Supported by a GEF LME Project: The Coral Triangle Initiative includes a monitoring and evaluation working group, which developed a Monitoring & Evaluation System Operation Manual (M&E System) with 5 goals, targets and 23 indicators. They are reported in the Regional [State of the Coral Triangle Report](#). This is supported by the [Coral Triangle Atlas](#) including an interactive GIS and MPA and climate change databases. A [CTI mapping tool](#) presents all current 194 projects with location and details.

Coral Triangle Atlas - <http://ctatlas.reefbase.org/atlas/default.aspx?layers=8,68>



Project websites and links to information, data and GIS

GEF ID	Project title	Dates	IA	Project and other information websites	Databases, GIS and reports
CORAL SEA & CORAL TRIANGLE INITIATIVE (CTI)					
1. 3523	CTI West Pacific-East Asia Oceanic Fisheries Management Project - under the Coral Triangle Initiative ⁵¹	2010-2013	UNDP	Project - https://www.wcpfc.int/ IW:LEARN - https://iwlearn.net/iw-projects/3523	
2. 3589	Coastal and Marine Resources Management in the Coral Triangle-Southeast Asia (CTI-SEA) ⁵²	2011-2016	ADB	Project - https://ctisoutheastasia.wordpress.com/ IW:LEARN - https://iwlearn.net/iw-projects/3589	Coral Triangle Initiative (CTI) Project Mapping Tool - http://maptool.regsec-cticff.org/ Publications and Handbooks ⁵³
3. 3619	Coral Triangle Initiative - CTI Strategies for Fisheries Bycatch Management ⁵⁴	2011-2014	FAO	IW:LEARN - https://iwlearn.net/iw-projects/3619	Coral Triangle Geographic and Fisheries Data Compilation, 2010 ⁵⁵
4. 3639	CTI GEF IW: LEARN: Portfolio Learning in International Waters with a Focus on Oceans, Coasts, and Islands and Regional Asia/Pacific and Coral Triangle Learning Processes - under the Coral Triangle Initiative ⁵⁶	2009-2013	UNDP	IW:LEARN - https://iwlearn.net/iw-projects/3639	

⁵¹ Indonesian Sea (LME) , Sulu-Celebes Sea (LME) , South China Sea (LME)

⁵² Indonesian Sea (LME) , Sulu-Celebes Sea (LME)

⁵³ <https://ctisoutheastasia.wordpress.com/knowledge-products-2/publications/>

⁵⁴ Indonesian Sea (LME) , Gulf of Thailand (LME) , Sulu-Celebes Sea (LME) , South China Sea (LME)

⁵⁵ <http://www.coraltriangleinitiative.org/library/statistics-coral-triangle-geographic-and-fisheries-data-compilation-2010>

⁵⁶ Coral Sea Basin (LME)

17. Small Island States

Governance/Institutional setting

The main regional organizations are:

- The [Secretariat of the Pacific Regional Environment Programme](#) (SPREP), which is the Secretariat of the Noumea Convention, Waigani Convention and Apia Convention. SPREP has 26 Member countries, 21 Pacific Islands Countries and territories and 5 metropolitan countries; and
- The [Pacific Islands Forum Fisheries Agency](#) (FFA) which aims to strengthen national capacity and regional solidarity so its 17 members can manage, control and develop their tuna fisheries.

Status of TDA and SAP: The Pacific Islands [SAP](#) was adopted in 1997.

Key databases

Supported by a GEF LME Project: Key databases and online platforms supported by GEF include the Pacific islands fisheries portal "[SustainPacFish](#)" with the latest information on activities and progress towards achieving conservation management measures for sustaining Western and Central Pacific fisheries (see *GEF ID 4746*). In addition, SPREP has a number of information portals including: the [SPREP GIS](#); the [Pacific Invasive Learning Network](#) regarding invasive species; the [Pacific Climate Change portal](#); the [Pacific Islands Protected Area Portal](#) and [Pacific Meteorological Desk & Partnership](#).

Project websites and links to information, data and GIS

GEF ID	Project title	Dates	IA	Project and other information websites	Databases, GIS and reports
SMALL ISLAND STATES					
1. 530	Implementation of the Strategic Action Programme (SAP) of the Pacific Small Island Developing States (SPREP)	2000-2005	UNDP	Project - http://www.sprep.org/ IW:LEARN - https://iwlearn.net/iw-projects/530	
2. 2131	Pacific Islands Oceanic Fisheries Management Project	2005-2011	UNDP	Project - https://www.ffa.int/ IW:LEARN - https://iwlearn.net/iw-projects/2131	Summary of the Strategic Action Programme (SAP) for International Waters of the Pacific Islands Region
3. 2586	PAS Implementing Sustainable Integrated Water Resource and Wastewater Management in the Pacific Island Countries - under the GEF Pacific Alliance for Sustainability	2009-2014	UNDP	Project - http://www.pacific-iwrm.org/ IW:LEARN - https://iwlearn.net/iw-projects/2586	
4. 3591	PAS Strengthening Coastal and Marine Resources Management in the Coral Triangle of the Pacific - under the Pacific Alliance for Sustainability Program ⁵⁷	2010-2017	ADB	Project - http://www.ctknetwork.org/ IW:LEARN - https://iwlearn.net/iw-projects/3591	Coral Cleanup knowledge network - online hub of knowledge about the Coral Triangle - http://www.ctknetwork.org/
5. 4746	Implementation of Global and Regional Oceanic Fisheries Conventions and Related Instruments in the Pacific Small Island Developing States (SIDS)	2014-present	UNDP	Project - http://www.sustainpacfish.net/ IW:LEARN - https://iwlearn.net/iw-projects/4746	SustainPacFish portal on fish stocks, catch and harvest, compliance, economic, bycatch - http://www.sustainpacfish.net/
6. 5404	R2R - Testing the Integration of Water, Land, Forest & Coastal Management to Preserve Ecosystem Services, Store Carbon, Improve Climate Resilience and Sustain Livelihoods in Pacific Island Countries	2013-2018	UNDP	Project - https://www.pacific-r2r.org/ IW:LEARN - https://iwlearn.net/iw-projects/5404	Documents, story books, multimedia - https://www.pacific-r2r.org/resources

⁵⁷ Small Islands States (LME) , Indonesian Sea (LME)

Main findings from the review of LME projects data and information

The 103 projects reviewed and presented in the table of projects, websites and links for each LME/group of LMEs can be broadly categorized into three types of projects:

- LME regional projects for the development of the TDA and SAP, and followed by regional projects to support the SAP implementation;
- LME regional projects focused on a thematic area, such as fisheries management, waste water and pollution, climate change, biodiversity and MPA's, in line with regional priorities and the SAP; and
- National projects, generally focused on reforms and investments for the improved management and remediation of the marine and coastal environment and corresponding watershed.

Some of the main findings of the review can be categorized as follows:

1. Availability of project data and information online.

Of all the GEF LME projects reviewed, approximately 25% have either their own self-standing project website, 25% have a site affiliated with the regional executing organization, 25% integrated into the UN agency, and 25% of projects (mostly the older projects) have information and reports only available on IW:LEARN. For a number of past projects, especially where websites have not been maintained following project closure, the main repository for information and documentation is the IW:LEARN website.

Self-standing project websites and those integrated into executing agency sites, typically have most reports and information available which includes:

1. Project reports such as meeting reports, training and capacity building documents, publications in journals, assessments, policy reviews and recommendations, progress reports and evaluation reports, guidelines and strategies (such as SAPs);
2. Communication material: videos, newsletters, lessons learned etc.; and
3. Databases

LME project reports present a huge resource of information that should be made as widely available as possible. Projects typically generate between 50-200 reports.

In addition to general project websites, many projects also have supported the development of information portals and databases. **Table 1** presents some of the main GEF LME related information and data websites.

Table 1. Main GEF LME related information and data websites

LME Information/data website	Available link
African Coastal Marine Atlas GIS	http://www.africanmarineatlas.org/
Arctic Monitoring and Assessment Programme (AMAP)	https://www.amap.no/data https://www.amap.no/maps-and-graphics
Baltic Sea - ICES Data Portal, datasets and maps	http://www.ices.dk/marine-data/data-portals/Pages/default.aspx http://www.ices.dk/marine-data/dataset-collections/Pages/default.aspx http://www.ices.dk/marine-data/maps/Pages/default.aspx
Baltic Sea – HELCOM databases and maps	http://www.helcom.fi/baltic-sea-trends http://www.helcom.fi/baltic-sea-trends/data-maps/ http://www.helcom.fi/baltic-sea-trends/indicators/
Bay of Bengal MPA Atlas	http://boblme.reefbase.org/
Benguela Current publications and Data and Information	http://www.benguelacc.org/index.php/en/data-and-information
Black Sea Integrated Monitoring and Assessment Programme (BSIMAP), databases and GIS	http://www.blacksea-commission.org/_bsgis2.asp http://www.blacksea-commission.org/_bsis-description.asp http://www.blacksea-commission.org/_datalinks.asp http://www.blacksea-commission.org/_bsgis2.asp
Danube River Basin reports and maps Danube GIS and river basin database	https://www.icpdr.org/main/activities-projects/danube-pollution-reduction-programme https://www.danubegis.org/ https://www.icpdr.org/wq-db/
Caribbean Environment program (CEP) clearing house and databases: Caribbean Marine Protected Area Management (CaMPAM) - as well as the database of the areas listed under our SPAW/Biodiversity Protocol Marine Mammal Interactive Mapping Tool - Maritime Traffic in the Wider Caribbean Region	http://campam.gcfi.org/CaribbeanMPA/CaribbeanMPA.php http://www.spaw-palisting.org/ http://www.car-spaw-rac.org/?-SPAW-RAC-Mapping-Application http://www.caribbeanmaritimetraffic.org/
Caribbean and North Brazil Shelf Large Marine Ecosystems (CMLE+) knowledge and data hub Caribbean marine atlas for ICZM and CLME+ CaribNode information system and GIS	https://clmeplus.org/ https://www.caribbeanmarineatlas.net/ http://www.caribnode.org/
East Asian Sea reports	http://www.pemsea.org/publications/reports
Yellow Sea Large Marine Ecosystem (YSLME) ⁵⁸ – NOWPAP Data and Information	http://dinrac.nowpap.org/
South China Sea and Gulf of Thailand (SCS) GIS and knowledge documents The Fisheries Refugia Interactive Mapping Tool	http://gis.unepscs.org/ and http://www.unepscs.org/remository.html http://refugia.unepscs.org/

⁵⁸ Yellow Sea (LME)

LME Information/data website	Available link
Humboldt Current Large Marine Ecosystem information and publications	http://humboldt.iwlearn.org/en/information-and-publication-1
Mediterranean ICZM Platform: Capacity building and training, projects and reports and related activities and reports	http://iczmplatform.org/
MPA related activities and publications	https://pap-thecoastcentre.org/projects/
PCBs in the Mediterranean, training, reports and video's	http://www.rac-spa.org/medmpanet and http://www.rac-spa.org/publications
Mediterranean Integrated Climate Information Platform (MedICIP)	http://pcbsmed.org/ http://climvar.grid.unep.ch/
Patagonian Shelf - Rio de la Plata/Maritime Front through Implementation of the FrePlata Strategic Action Programme	http://www.dinama.gub.uy/freplata/ ⁵⁹
FrePlata II Bi-national Monitoring Program and the Integrated Information System	http://mapas.ambiente.gob.ar/?idarticulo=12854
FrePlata II GIS (Uruguay)-	
Pacific Regional Environment Programme (SPREP) data portals and GIS	https://www.sprep.org/resources http://gis.sprep.org/
Invasive species	https://piln.sprep.org/
Climate change	https://www.pacificclimatechange.net/
Protected areas and GIS	https://pipap.sprep.org/
Coral Triangle Initiative reports and Atlas	http://www.coraltriangleinitiative.org/mewg
CTI project mapping tool	http://ctatlas.reefbase.org/ http://maptool.regsec-cticff.org/
Pacific island Ridge to Reef	https://www.pacific-r2r.org/

2. Online repository of metadata used for project assessments

Project reports and assessments from TDAs, EIAs, socio-economic assessments etc. are based on the gathering of data and expert knowledge and information within the region, either using existing data and information available, or through support for the generation of new data. This data comes from various sources, including typically a combination of these:

- National Monitoring Programmes and databases on pollution, biodiversity and fisheries (also climate change where relevant). Some of the projects provide links to these monitoring programmes and/or the national institutions responsible. Several regions have agreed regional monitoring programmes with common indicators reported by national institutions (i.e. Mediterranean and Baltic), although it is not clear in all regions what is the relationship between national/regional monitoring and the GEF LME projects.
- Existing national and regional reports and publications that are available, often with the support of regional organizations and additional funding, and global organizations such as WWF, IUCN, FAO etc.
- Global databases such as [Global Ocean Observing System](#) (GOOS), FAO, NOAA, etc.

⁵⁹ See monitoring plan at <http://www.dinama.gub.uy/freplata/wp-content/uploads/2015/01/Programa-Binacional-Monitoreo-nov-2014-CD.pdf>

However, sources of data and information used within the project is not always clearly reported, and compiled into meta-databases, so that it can be made available in the future. One good example of clearly reported metadata is the Agulhas and Somali Current Large Marine Ecosystem compilation of [meta-data and information](#) including a data and information management plan.

3. Long-term maintenance of databases

The majority of LMEs have established some sort of database, with or without help of the GIS, in many cases through the key regional organizations, and in some cases through the project activities. In some regions, there are multiple databases, not always with clear relationships between them. Where cooperation with relevant regional institutions for the long-term monitoring of the marine and coastal environment has been established, such databases have been continually maintained, using additional resources from other donors and national funding (in the cases of regional seas conventions, fisheries bodies etc.). Good examples include the Baltic Sea ICES and HELCOM data portals, maps and assessments, the International Commission for the Protection of the Danube River (ICPDR) databases and the Coral Triangle Initiative project and GIS. Regarding project related databases not integrated into a regional organization, it is noted that many of these have not been updated since closure of the project. It is therefore key that partnerships between regional organizations are established for long-term data management, which can be supported through project activities through the generation of data and information, and support to national monitoring programmes if appropriate. Consideration should also be given to integrate regional databases with global databases where appropriate, as well as the uploading of maps to the IW:LEARN Geonode (<http://geonode.iwlearn.org/>).

4. Long-term reporting of targets and indicators

There is a need for a strong relationship between LME strategic targets and indicators and the generation of data and information to report on the progress of these targets and indicators. Relatively few of the SAPs report regularly on the progress towards achieving agreed targets.

Several LMEs have developed monitoring and assessment programmes with indicators which are reported in regular state of environment type reports including:

- Caribbean State of Convention Area Report (SOCAR) Report (2019)
- Pacific State of Environment Report (2017);
- Second Holistic Assessment of Ecosystem Health in the Baltic Sea (HOLAS II) (2017);
- Mediterranean Quality Status Report (2017);
- Northeast Atlantic Intermediate Assessment (2017);
- West-Indian Ocean State of the Coast Report (2015);
- Red Sea and Gulf of Aden State of Marine Environment Report (2015); and
- Northwest Pacific SOMER (2014).

Also, with the adoption of Agenda 2030 and the Sustainable Development Goals, targets and indicators, several LMEs are in the process of aligning their regional targets and indicators with the SDGs, such as the Mediterranean (UNEP/MAP), Baltic (HELCOM), the Pacific (SPREP) and the Northwest Pacific Region (NOWPAP), so that future reporting on common agreed indicators can also contribute to reporting on the achievement of relevant SDG targets.

References

- GEF CReW. (2015). *Wastewater Management Platforms for the Wider Caribbean Region*. Retrieved from http://www.gefcrew.org/images/reports/project_final_reports/CReW_C2_Report_WastewaterManagementPlatforms_for_the_WCR_Final_2015.pdf
- PEMSEA. (2005). *Integrated Information Management System for Coastal and Marine Environment : Web-based IIMS User Manual*. Retrieved from <http://seaknowledgebank.net/e-library/integrated-information-management-system-coastal-and-marine-environment-web-based-iims>
- PEMSEA. (2009). *PEMSEA's Experience in the Use of Data/Information in ICM*. Retrieved from <http://www.pemsea.org/publications/reports/pemseas-experience-use-datainformation-icm>
- UNDP/GEF. (2017). *Draft Program of the First Meeting of Regional Working Group on Monitoring and Assessment Group*. UNDP/GEF YSLME Phase II Project. Retrieved from https://docs.wixstatic.com/ugd/fdf002_328dd6a41ada4c99a314f437a30e4fce.pdf
- UNEP CEP. (2009). *Atlas - Assessment and Management of Environment Pollution*. Retrieved from <http://www.cep.unep.org/publications-and-resources/technical-reports/AMEP%20ATLAS%202007-2009.pdf/view>
- UNEP CEP. (2010). *Domestic and Industrial Pollutant Loads and Watersheds Inflows*. Retrieved from <http://www.cep.unep.org/publications-and-resources/technical-reports/cep-technical-report-no-52-en.pdf/@download/file/CEP%20Technical%20Report%20No.%2052-en.pdf>
- UNEP GEF. (2007). *GEF-IWCAM Capacity Assessment of Geographic Information Systems Capabilities of the Caribbean*. Retrieved from <http://cep.unep.org/iwcam/maps-and-gis/geographic-information-systems-gis/gef-iwcam-capacity-assessment-of-geographic-information-systems-capabilities-of-the-caribbean-final-september-2007/view>
- UNEP GEF. (2012). *Integrated Watershed and Coastal Areas Management (IWCAM) Atlas*. Retrieved from <http://wedocs.unep.org/handle/20.500.11822/9251>