

16th Lme

Meeting with
Coastal Partners

Paris (FR) 8 - 11 July 2014



GEF Transboundary Waters Assessment Programme (TWAP):

LME Data Products

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IOC-UNESCO

Session 2.3: Data management and integration best
practices

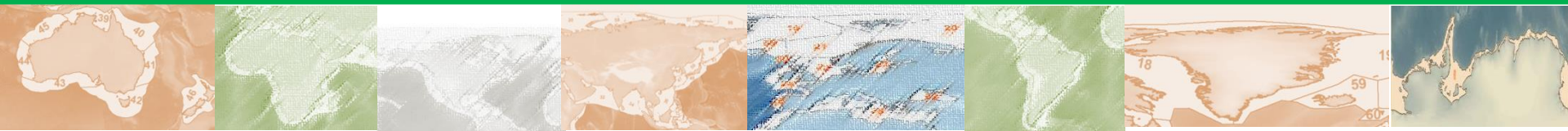
9 July 2014



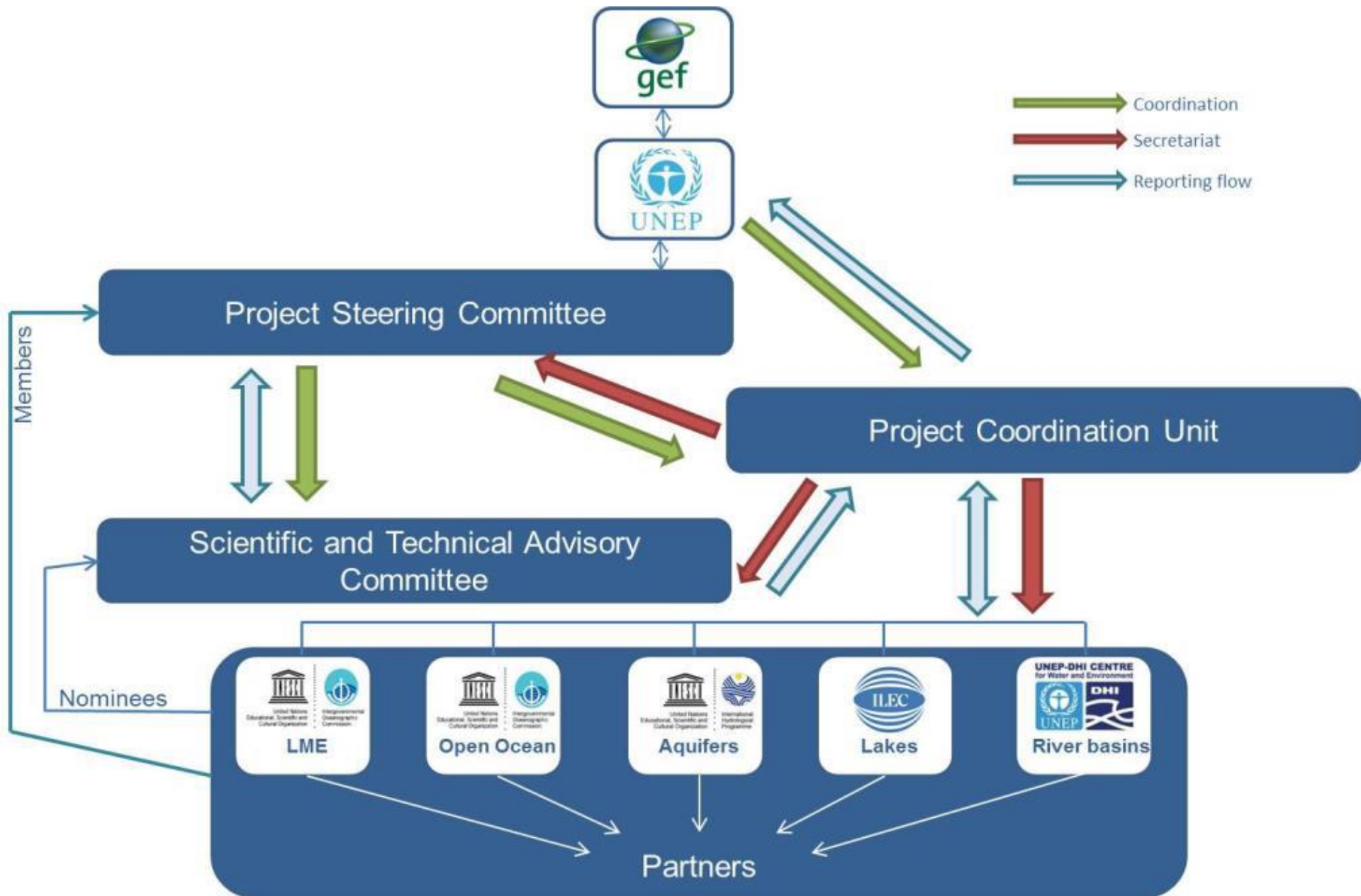
TWAP objectives (FSP)

1. To undertake the first global baseline assessment of transboundary groundwater aquifers, lakes/reservoirs, river basins, *large marine ecosystems*, and open ocean areas through a formalized consortium of partners, that will **assist GEF and other international organizations to improve the setting of priorities for funding allocations**
2. To formalize a **partnership** with key institutions aimed at incorporating transboundary considerations into regular assessment programmes, resulting in **periodic assessments** of transboundary water bodies.

Duration: April 2013 - March 2015

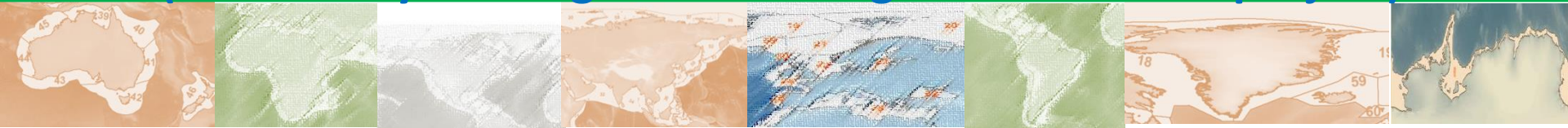


Institutional arrangements

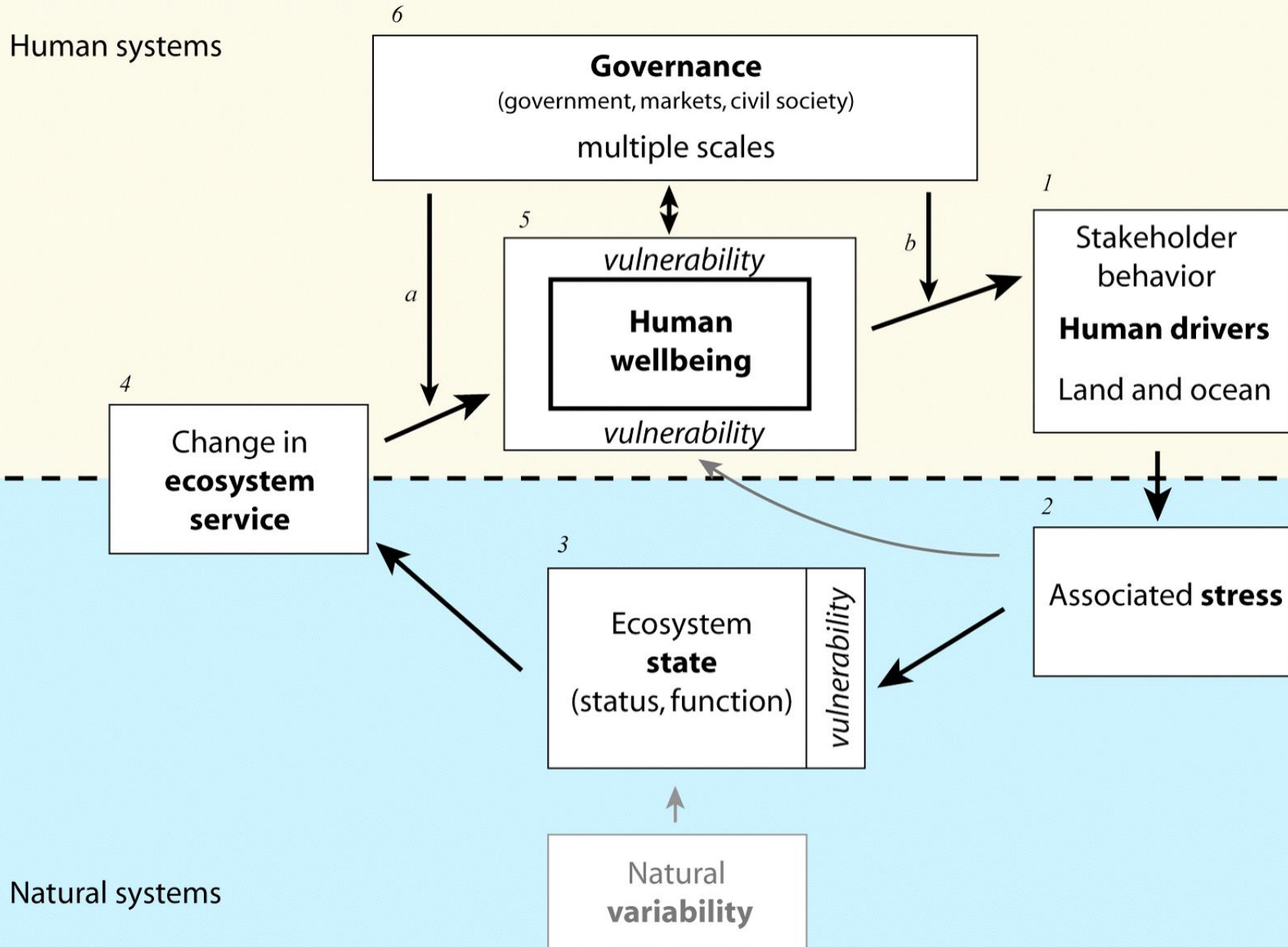


LMEs assessment methodology

- Covers the 66 LMEs and Pacific Warm Pool
- Indicator-based methodology developed by Working Group of institutional partners and experts (previous TWAP phase)
- Conceptual framework showing link between human and natural systems, based on 5 LME modules and DPSIR framework
- Uses available global datasets
- Level 1: A global comparative baseline assessment – identifying LMEs in 5 ‘risk’ categories (highest to lowest) according to environmental state/human vulnerability using a subset of indicators
- Level 2 assessment: More detailed assessment within LMEs (Pilot in Bay of Bengal LME through GEF BoB LME project)

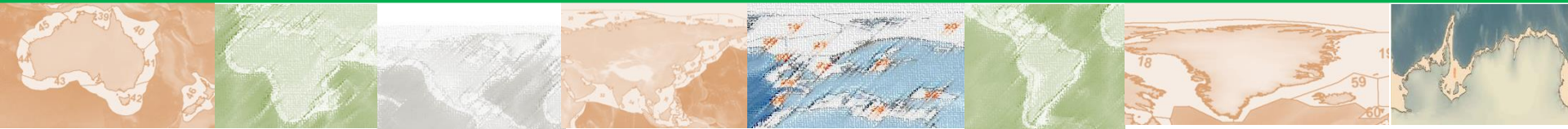


Conceptual framework



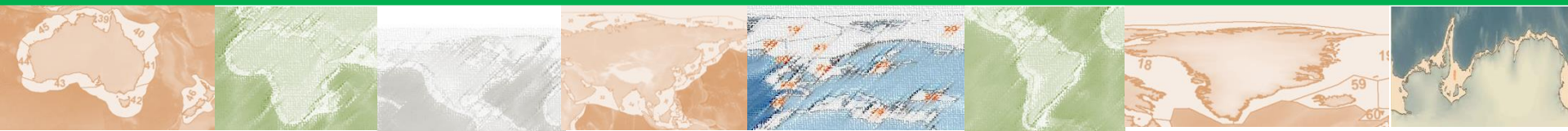
Framing questions

- What are the current trends in LME state (and projections)?
- Which LMEs are most heavily impacted?
- Which ecosystem services are most at risk?
- What are the implications for human communities?
- Where is human dependency greatest on LME ecosystem services?
- Where are humans most vulnerable to changes in LME condition?
- What is the status of the governance arrangements in transboundary LMEs?
- What are the key emerging issues?
- Others



Selection of Indicators

- Identification of major environmental issues in LMEs (TDAs):
 - Overfishing
 - Pollution
 - Nutrient over-enrichment
 - Habitat degradation & biodiversity loss
 - Climate change impacts
- Socio-economic importance: human dependence on ecosystem services, human vulnerability to ecological changes
- Governance arrangements: fisheries, habitats, biodiversity, water quality
- Availability of global datasets, expertise, partners



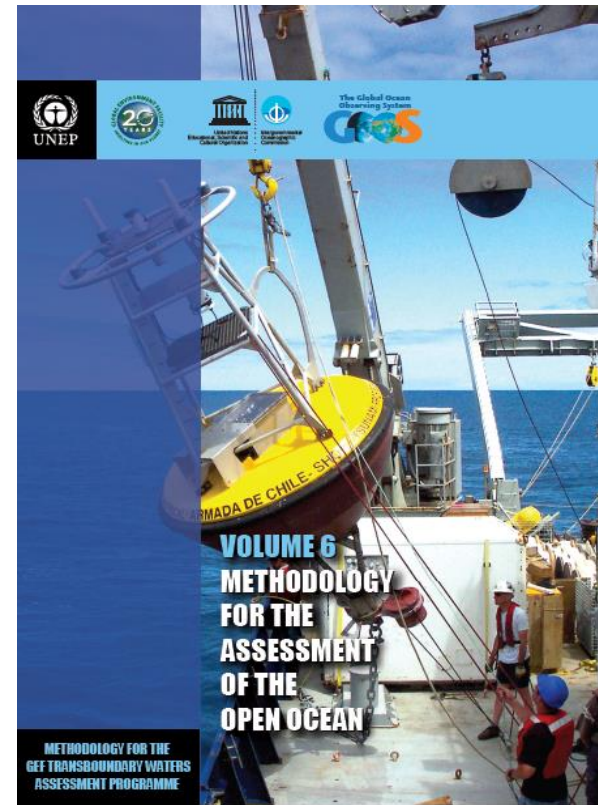
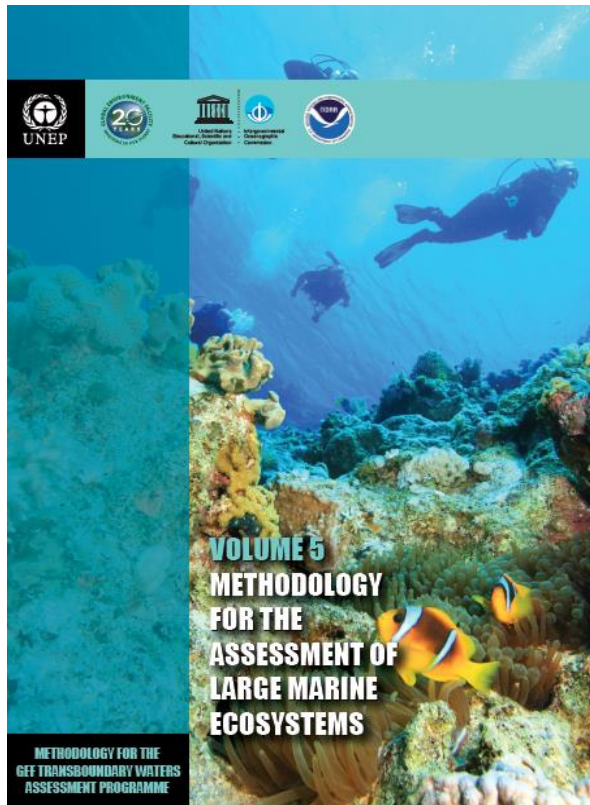
LME Indicators (current assessment)

Productivity	Fish & Fisheries	Pollution & Ecosystem Health	Socio-economics	Governance
•Chlorophyll	•Annual landings & value	•Nutrients (N, P, Si)	•% GDP fisheries	•Governance architecture (transboundary LMEs)
•Primary productivity	•Marine trophic index	•Index of Coastal Eutrophication Potential	•% GDP international tourism	
•Sea surface temperature	•Stock status	•POPs in plastic pellets	•Population within 10 m coastal elevation	
	•Catch from bottom impacting gear	•Plastic debris density	•Human Development Index	
		•Change in MPA coverage	•Night light Development index	
		•Reefs at Risk Index		

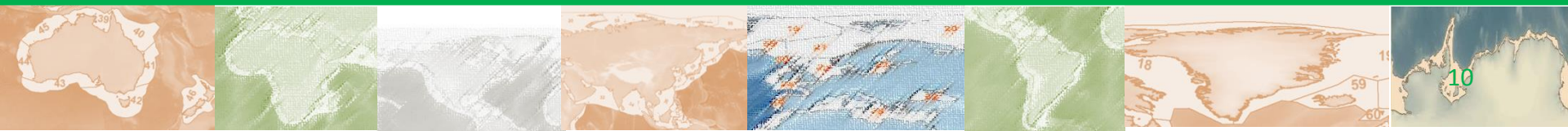
LME Partners

Productivity	Fish & Fisheries	Pollution & Ecosystem Health	Socio-economics	Governance
•NOAA	•UBC Fish. Centre	•IGBP	•L. McManus (consultant)	•R. Mahon (UWI/CERMES)
•U. Rhode Is		•UNEP-WCMC		•L. Fanning (U. Dal)
		•GESAMP		
		•Tokyo Univ. Agric & Tech (Int'l Pellet Watch)		
		•CMAP/UCSB		

Assessment methodologies



<http://www.geftwap.org/project-results-and-reports>



Assessment products

Data

Spatial information and statistics will be freely available to download from the TWAP Web portal.



Reports

A synthesis report and summary for decision makers will be available, as well as technical thematic reports.



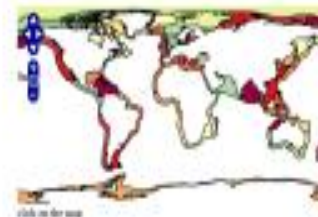
Indicators

Indicators factsheets and accessible metrics by themes will be freely available to download.



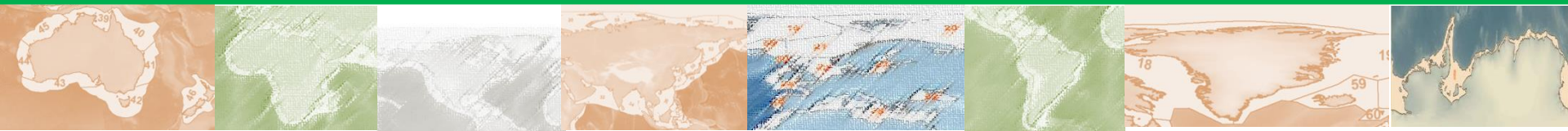
Click on a LME or OOE to view its details and indicators.

Land Rerouting New South Wales California Concept - Gulf of California Gulf of Mexico South-East Asia (South-East Asia)

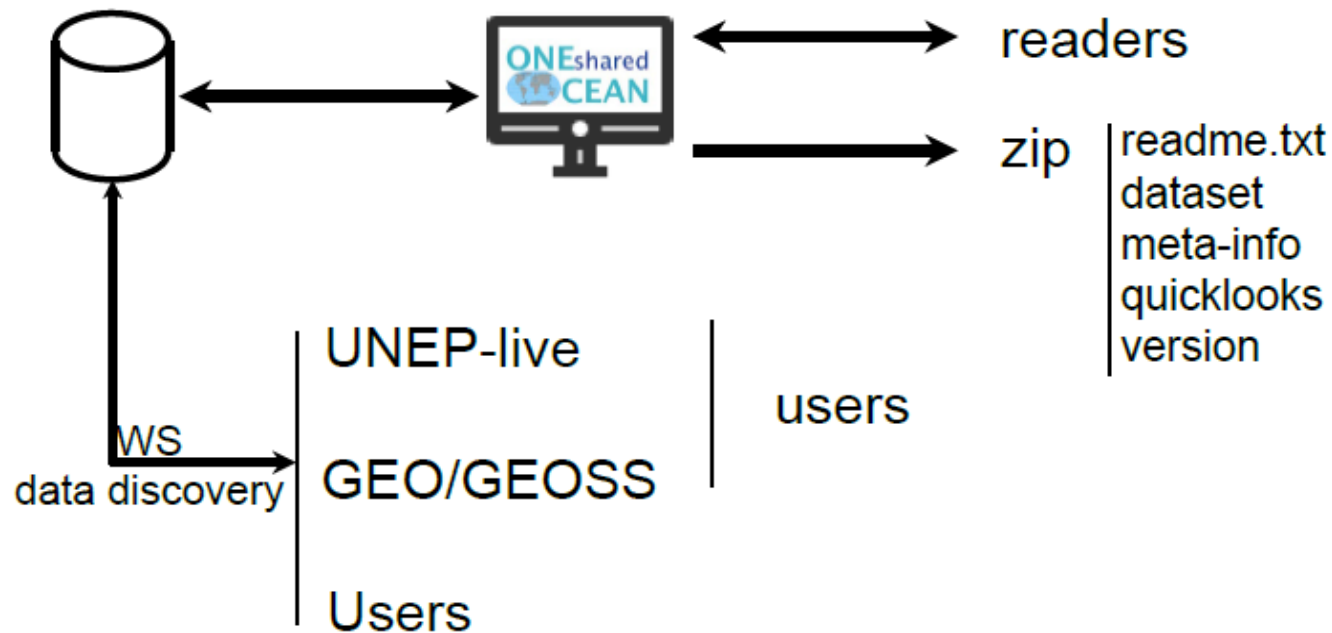


Web

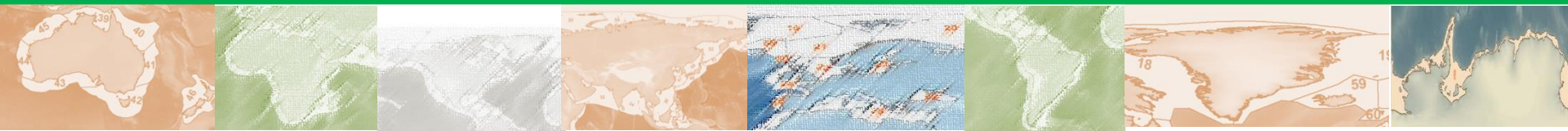
Our marine website will disseminate all products and results related to LME and Open Ocean led by IOC-UNESCO.



Website and data portal

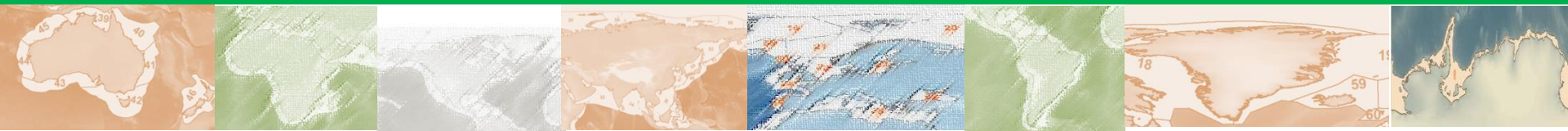


Co-financing (~\$1.4 million) through EU GEOWOW project – TWAP Open Ocean and LMEs portal to be integrated into the GEOSS Common Infrastructure



Data protocols

- Provide partners with a common framework on data and information management
- Ensure reproducibility and future capacity to coordinate data management
- Support a corporative and homogeneous communication strategy (LME/Open Ocean)
- Ensure the sustainable management of data, information and project's results beyond the project life



Data accessibility

Data for download are packaged in a zip, containing:

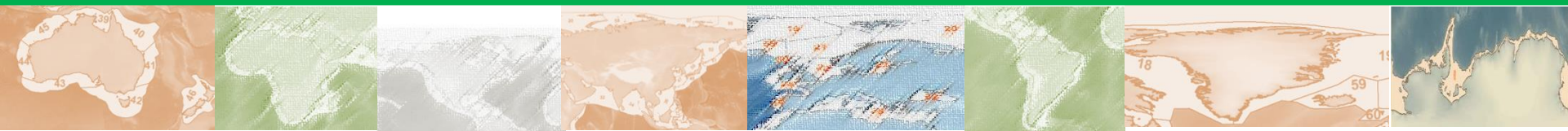
dataset

readme.txt describe the package

version.log history of changes

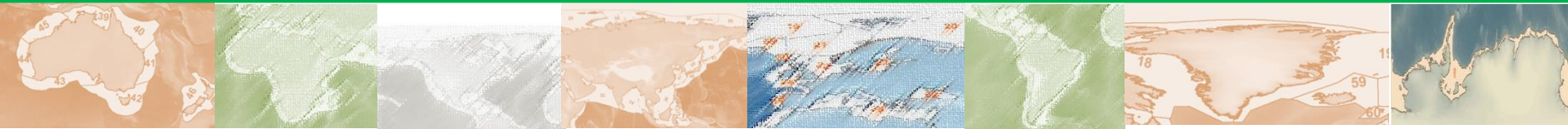
quicklook(s) example of data visualisation

meta-information xml (ISO 19139) + product description sheet



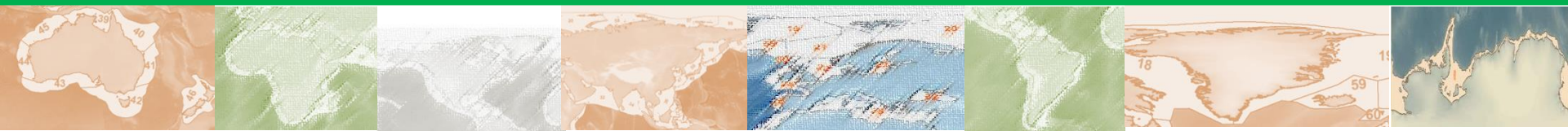
Sustaining the data portal

- Requires going beyond a simple data repository
- Keep it alive: incorporating new data, making corrections, updating data and meta-information, etc
- Ensure visibility in ongoing and forthcoming projects, ensure connections, etc
- User feedback and support: data interpretation, how to use them (technical, policy, etc)
- Support and maintenance at the platform level
- Access to all data providers (contact details made available)
- Sustained financial support



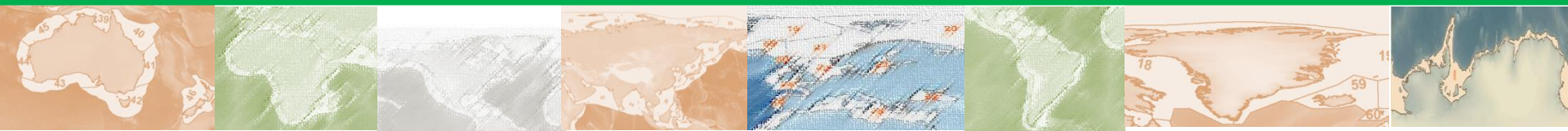
Sustaining TWAP

- Consortium of institutional partners and experts
- Data availability
- Sustaining and maintaining data portal
- Funding availability
- Uptake in regional and global assessment processes, LME projects, etc



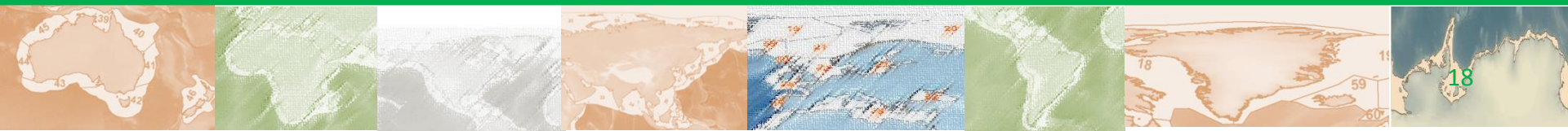
LMEs fact sheets

- Electronic profile of each LME and Pacific Warm Pool
- Indicator results: narratives, time series, geo-spatial data, indicator descriptions
- Visualization of indicator results- maps and graphs
- Freely downloadable data with meta information (GEOSS QA/QC protocol)
- Facilitates comparison among multiple LMEs



DEMO OF WEBSITE AND LME FACT SHEET

Work in Progress



THANK YOU

