

Intergovernmental Oceanographic Commission

Workshop Report No. 285



**Drafting Workshop for the
development of a training and
Repository Portal for the
Caribbean Large Marine
Ecosystem**

Cartagena, Colombia
9–11 April 2019

UNESCO

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Workshop of the Technical Task Team for the development of a Strategy and tools providing “Caribbean and North Brazil Shelf Large Marine Ecosystems” – CLME+ Stakeholders with access to training and capacity building opportunities, materials on issues of key/cross-cutting importance for the CLME+ SAP Strategies



Organized by

IOCARIBE of IOC UNESCO

Cartagena, Colombia, 9–11 April 2019

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Executive Summary

Following the successful completion in 2014 of the Project “Sustainable Management of the Shared Living Marine Resources of the Caribbean Large Marine Ecosystem (CLME) and Adjacent Regions” (PIMS 2193), the UNDP/GEF Project Document for the Project “CLME+: Catalysing implementation of the Strategic Action Programme (SAP) for the sustainable management of shared Living Marine Resources in the Caribbean and North Brazil Shelf Large Marine Ecosystems” was endorsed by the CEO of the Global Environment Facility (GEF) in 2015.

This new, 5-year UNDP/GEF CLME+ Project (GEF ID 5542; 2015–2020), with UNOPS as the Executing Agency, became operational on 1 May 2015. The project seeks to facilitate Ecosystem Based Management/an Ecosystem Approach to Fisheries (EBM/EAF) within the CLME+ region, in such a way that a sustainable and climate resilient provision of goods and services from the region’s living marine resources can be secured.

Given its regional and comprehensive nature, the CLME+ Project is uniquely positioned to address the root causes of environmental degradation, such as gaps and weaknesses in transboundary and cross-sectoral governance arrangements, and lack of knowledge and capacity among CLME+ stakeholders. In this same context, the project will seek to offer opportunities to enhance stakeholder capacity, and assist stakeholders in achieving improved coordination, collaboration and integration among the wide array of ongoing and newly planned programmes, projects and initiatives (PPIs) within the CLME+.

IOC of UNESCO and IOCARIBE, through their global and regional mandates, have the responsibility to promote international cooperation and to coordinate programmes in research, services and capacity-building, in order to learn more about the nature and resources of the ocean and coastal areas and to apply that knowledge for the improvement of management, sustainable development, the protection of the marine environment, and the decision-making processes of its Member States. IOC of UNESCO and IOCARIBE are, therefore, uniquely positioned to coordinate/execute those elements of the CLME+ Project which have the following double focus: (thematically) science & capacity building/marine environment, and (geographically) region-wide (wider Caribbean).

The selection of IOC of UNESCO as a co-executing partner for the CLME+ Project is fully aligned with the formal mandates of IOC of UNESCO and IOCARIBE; the designation of IOC of UNESCO as responsible party under the CLME+ Project Document; and the decisions of the CLME+ Project Steering Committee.

1. OPENING OF THE MEETING

Mr Cesar Toro, Head of the Secretariat of the UNESCO/IOC Sub-Commission for the Caribbean and Adjacent Regions (IOCARIBE) and representative of the Intergovernmental Oceanographic Commission (IOC), addressed the meeting on behalf of Mr Vladimir Ryabinin, Assistant Director General of UNESCO and Executive Secretary of IOC. He reminded participants attending the meeting that the Technical Task Team will discuss the general approach towards contributing to sustainable management of marine resources in the Caribbean and North Brazil Shelf Large Marine Ecosystems (CLME+ region) and to the achievement of the GEF/UNDP [CLME+ Project](#) (“CLME+: Catalysing implementation of the Strategic Action Programme (SAP) for the Sustainable Management of shared Living Marine Resources in the Caribbean and North Brazil Shelf Large Marine Ecosystems”) Outcome for Component 2, namely a conceptual description of a sustainable online “training portal,” to be collaboratively developed and linking those CLME+ stakeholders that are either providing or searching for, or that could potentially finance training opportunities on CLME+ SAP-relevant matters, with each other. This general outline will be complemented by a more detailed technical implementation plan, the “Work Plan,” with associated “Terms of Reference”.

2. CLME+: SETTING THE SCENE

2.1 INTRODUCTION AND PRESENTATION OF THE CLME+ SAP AND PROJECT

Mr Patrick Debels, Regional Project Coordinator of the CLME+ Project (UNDP/GEF), made a presentation where he summarized the CLME+ project talking about its objectives, products, goals, strategy, among other topics, in order to make the participants of the meeting aware of the essence of the CLME+ project.

Abstract

In 2013, countries bordering and/or located within the Caribbean and North Brazil Shelf Large Marine Ecosystems (the “CLME+ region”) adopted a 10-year Strategic Action Programme for the Sustainable Management of shared Living Marine Resources of the Caribbean and North Brazil Shelf Large Marine Ecosystems, the “CLME+ SAP.” This “SAP”, which has been politically endorsed by more than 20 countries, provides a roadmap towards sustainable living marine resources management, to be achieved by strengthening and consolidating cooperative governance arrangements at the regional and sub-regional levels. As an ambitious “umbrella” SAP, its implementation cannot be achieved through a single project, nor by a single organization. Rather, better articulation and collaboration will be required among the different organizations with a mandate for marine resources management in the CLME+. Enhancing the capacity of CLME+ stakeholders will be key to ensuring successful implementation of the CLME+ SAP.

The development objective of the CLME+ Project is to facilitate Ecosystem-Based Management (EBM) and the implementation of the Ecosystem Approach for the management of key Fisheries (EAF) in the CLME+ region in the next decade, in order to ensure the sustainable and climate-resilient provision of goods and services from shared living marine resources.

The 5-year CLME+ Project (2015–2020) will kick-start the implementation of the 10-year CLME+ SAP through a series of activities and outputs structured under 5 distinct Project Components/Outcomes. Project activities will address the different root causes of environmental degradation, which were identified under the predecessor project “CLME.”

2.2 PRESENTATION OF THE TERMS OF REFERENCE (TORS) FOR THE TECHNICAL TASK TEAM (TTT), AND THE IMPLEMENTATION SCHEDULE

Mr Cesar Toro, Head of Secretariat of the IOC Sub-Commission for the Caribbean and Adjacent Regions (IOCARIBE) made a presentation entitled “Terms of Reference (TORS) for the Technical Task Team (TTT), and the Implementation Schedule.”

Abstract

Overarching CLME+ Project Development Objective:

The development objective of the CLME+ Project is to facilitate Ecosystem-Based Management (EBM) and the implementation of the Ecosystem Approach for the management of key Fisheries (EAF) in the CLME+ region in the next decade, in order to ensure the sustainable and climate-resilient provision of goods and services from shared living marine resources.

The 5-year CLME+ Project (2015–2020) will kick-start the implementation of the 10-year CLME+ SAP through a series of activities and outputs structured under 5 distinct Project Components/Outcomes. Project activities will address the different root causes of environmental degradation, which were identified under the predecessor project “CLME.”

CLME+ Project Component 2

Outcome: Enhanced institutional and stakeholder capacity for sustainable and climate-resilient sLMR (shared Living Marine Resources) management at regional, sub-regional, national and local levels (with special attention to regional and sub-regional organizations with key roles in SAP implementation).

Output # 1: Strategy and tool(s) providing CLME+ stakeholders with access to training and capacity building opportunities/materials on issues of key/cross-cutting importance for the CLME+ SAP Strategies (related to CLME+ Project Output 2.5 (O2.5))

Activities under OUTPUT # 1

The Technical Task Team (TTT) will be tasked to draft the Strategy, the Work Plan and Terms of Reference for the information products that are required under the Strategy: portal of training opportunities, repository of training materials. The TTT should particularly:

- Provide a detailed description of the conceptual, schematics and desired functionality for each product with special attention to: the way content is acquired (manual entry or content harvesting); the update cycle (timing) and user interface (how the portal can be consulted);
- Draft a Sustainability Plan for the implemented solutions, including a proposal for sustainable financing;
- Map the most relevant, existing stakeholder empowerment and training/capacity building initiatives, mechanisms, materials and associated portals (targeting governmental bodies, civil society, CBOs, FFOs), within the CLME+ region and/or serving the CLME+ region;
- Review relevant online software platforms already in place amongst the partnership and compare these with the requirements;
- Recommend an online software platform solution(s) based on one or more existing platforms;

- Provide overview of required technical work, cost and timing to implement the two products as a joint product/service for the partnership
- M&E and reporting on portal/repository performance (visitor stats, geographic distribution of visitors, use of the different sections, ...)

The following aspects should be taken into account for the design and implementation of the portal(s)/repository:

- UNDP/GEF CLME+ Project and CLME+ Partnership branding.
- CLME+ SAP root causes, strategies and sub-strategies.
- Avoidance of replication; consider and, where feasible, build upon what may already have been put in place by other initiatives/projects/organizations.
- “Partnership” approach; acknowledges and seeks integration of existing work/efforts, especially where proven “long-term” sustainability track record or perspectives exist.
- After-project Sustainability.
- Sensitivity for gender and minority groups.
- Desired (minimum) functionality to include:
 - Attractive, inviting GUI, reflective of current state-of-the-art and design tendencies; tailored.
 - At least version in English and Spanish (preferable also in French).
 - Possibility of accessing the portal both as a stand-alone portal as well as a portal embedded within, or directly accessible through the CLME+ web portal (the latter is to be developed & implemented by the CLME+ PCU) (“integration” in terms of CLME+ branding & functionality).
 - Calendar functionality.
 - Geospatial GUI – visualizing location of workshops/ training opportunities (consider incorporation of “time slider”).
 - Advanced search functionality; keywords linkable to CLME+ SAP strategies, concepts, topics and priorities.
 - Scalability/replicability: possibility to consider the CLME+ portal(s)/repository as “prototype” for application in other LME’s; liaise with LME: LEARN/IW:LEARN and possibly other IW/LME projects, both in the region and globally, and explore possibility of pooling resources into the development and implementation of the portal.
 - Detailed portal/repository M&E data, easily accessible for CLME+ PCU, Advisory Body and TTT; key stats visible to the broader public, M&E mechanism should be built in such a way that it allows to answer the questions: (a) how successful were we in enhancing awareness among CLME+ stakeholders on relevant training/capacity building opportunities; (b) how successful is it in addressing CLME+ stakeholders’ training/capacity building needs.

3. POTENTIAL USEFUL PLATFORMS, FUNCTIONALITIES & TOOLS

In this item, each representative was invited to provide a brief presentation on their agency / institution strategies and tools for training and capacity building opportunities/ materials, and propose preliminary proposals on collaborative activities.

Mr Tim Deprez from Ghent University made an introduction to Marine Training portal.

Abstract

In order to boost the development of “Blue Careers”, the EMBRC (European Marine Biological Resource Centre) Marine Training Platform offers an overview of current Marine and Maritime training, whilst being a supporting framework to foster new Blue Growth training initiatives and supporting exchange of best practice including a set of tools for the hosting and advertisement of Blue Career focussed trainings. In the forthcoming period, next to increasing the visibility of new trainings, the platform will expand its services for end-users. The supporting framework committed to training organizers will offer a dedicated e-Learning Platform and tailor-made solutions for extensive advertisement, application and registration follow-up, dissemination of training material, and discerning certification.

The purpose of the Marine Training Platform is to

- Group and advertise Marine Training Initiatives in a coherent and integrated way;
- Attract and actively capture new training initiatives;
- Offer services to training organizers:
 - Application / Registration / and Trainee Follow-up
- Offer a dedicated e-Learning Platform;
- Facilitate e-trainings;
- Offer services to trainees and serve as:
 - A single access point to investigate training possibilities,
 - A single access point to register to training possibilities,
 - A platform through which Training Grants can be advertised and promoted.
- Allow long-term follow-up of both trainings and trainees.

Mr Pablo Lloret from Cap-Net UNDP, made an introduction to Virtual Campus.

Abstract

The Cap-Net Virtual Campus is built on a web platform and is proposed as a transversal platform for all Cap-Net activities, for associated networks, and for allies who wish to benefit from online learning. The campus will serve both face-to-face courses and new virtual courses.

- Online education works. It is growing and it is here to stay. Online education is financially and environmentally efficient.
- It does not replace or compete with face-to-face education. It completes it. Thanks to online education we can expand our outreach Cap Net & Online Capacity development.
- We are filling a gap and responding to demands.
- Ideas for 2019 add new type of courses self-paced “flag ship” courses on key topics and main partners “Cap Talks´s” Webinars.
- Very high and unattended demand for water online courses from all regions.
- Accept many participants, knowing in advanced that some will drop off. To aim for 80 active participants.
- Do not underestimate the value of a good course coordination and facilitation.

- Significant savings in tickets, hotel, meals. However, high quality staff time is needed (in kind!). Effective and efficient solution in times of low funding.
- An online course is not about a list of readings available in a website.
- Feedback from experienced facilitators and general and individual follow up by the coordinator are key.
- Course duration matters. Try not to exceed 8 weeks.

Cap Net online courses have specific aspects, which make them “real” courses:

- Progressive content coverage in modules,
- Compulsory readings,
- Assignments to be delivered,
- Participatory forums,
- Quizzes to close each module,
- Suggested readings, videos, web sites,
- Course evaluation form.

Mr Maurice McNaughton from University of the West Indies (Centre of Excellence & Innovation) made an introduction to Scaling Digital Literacy in the Caribbean.

Abstract

Caribbean School of Data (CSOD).

A Business Model for scalable digital capacity building.

Big Idea: Increasing employability and economic opportunities for at risk youth across the Caribbean through digital literacy and data skills training.

Establishing a distributed, scalable digital skills training capability through a network of regional partners in seven (7) countries across the Caribbean.

Developing a portfolio of multilingual, modular, training courses to deliver digital literacy competencies and basic and advanced data skills.

Training at least 1,500 marginalized youth in seven (7) countries across the Caribbean over a two-year period.

Building a vibrant virtual community of CSOD trainees, alumni, mentors and prospective employers to help in realizing the strength and earning potential of data and digital literacy.

CSOD Partnerships

- Local country training partners

Country level partners in the target countries will form a key component of the CSOD' innovative blended learning delivery model to enable regional scale through local presence.

- Community based Organizations (CBO)

CBO partners will provide important touchpoints and the locus of engagement with the target beneficiaries to facilitate the outreach, recruitment as well as ongoing support for the capacity building activities.

- Education Partners

CSOD partners will seek dialogue and partnerships with local and regional education bodies, especially in the secondary and TVET (Technical and vocational education and training) domains, to address issues such as alignment and certification.

- Private Sector Partners

Increased employment and employability through digital literacy and data skills training, is one of the primary goals of this initiative. Private sector partners can provide job opportunities, funding, mentorship and other forms of support for the youth participants.

Mr Ned Dwyer from International Coastal Atlas Network (ICAN) made an introduction to Coastal Web Atlases (CWAs).

Abstract

The International Coastal Atlas Network (ICAN) Project of the IODE (<http://ican.iode.org>) is made up of a community of practice of organizations and individuals who focus on scoping and implementing data interoperability approaches to Coastal Web Atlases (CWAs). A key objective of the project is to share experiences and to find common solutions to CWA development (e.g., user and developer guides, handbooks and articles on best practices, information on standards and web services, expertise and technical support directories, education, outreach, and funding opportunities, etc.), while ensuring maximum relevance and added value for the end users.

The network Members have a global reach, but the majority of active members are based in Europe, the Americas and Africa. Every two years, ICAN organizes an international workshop to discuss and share experiences about CWA development and applications (e.g. Marine Spatial Planning, Ocean Literacy). Moreover, from time to time it organizes regional workshops to discuss issues of specific interest at a regional level. Members also contribute to expert groups, workshops, seminars and training courses some organized under the auspices of IOC-IODE. ICAN representatives have contributed to CMA (Caribbean Marine Atlas) developments.

Capacity building is an ongoing major activity of ICAN. It achieves this by ensuring Member representatives are available to participate in relevant face-to-face and remote training activities, through programmes such as Ocean Teacher Global Academy (OTGA) and others. Furthermore, ICAN is making available its training materials such as technical cookbooks, handbooks and guides for the use of CLME + activities. All such resources can be catalogued in the CLME + capacity building portal to be developed.

ICAN is exploring the potential of developing a mentorship programme, where experienced web atlas developers are connected with emerging atlas developers in order to support them through the development process. CLME + organizations could become early adopters in this programme.

Some members of ICAN have significant capacity in the use of Earth Observation technologies (e.g. space borne sensors) for coastal and ocean management and can support CLME + organizations in capacity building through linkages with initiatives such as the European Space Agency funded Coastal Thematic Exploitation Platform project.

Mr Luis Castellanos from Sistema de Integración Centroamericana (SICA) made an introduction to the Regional Environmental Observatory (OAR) of the Central American Commission on Environment and Development (CCAD).

Abstract

Regional Environmental Observatory

AOR is a specialized regional tool that provides the Council of Ministers and other relevant stakeholders with up-to-date and timely information for decision making, derived from the proposed actions contained in the Regional Environmental Strategy Framework 2015–2020 (ERAM).

It seeks to consolidate the different information products generated in a single portal, ordered according to the following themes:

1. Water Resource Management
2. Climate Change
3. Forests and Biodiversity
4. Environmental Quality
5. Trade and Environment
6. Funding Mechanisms

Ms Candice Sankars is a freelance eLearning Instructional Designer and made a presentation to Online Training Content in the Value Chain.

Abstract

Successful examples of e-learning portals, platforms and products already demonstrate effective human capital development. As such, an examination of “value” along the 3 key areas of e-learning segmentation: content, technology and services would be beneficial.

Mrs Sankars focused on the area of content, and used a modified version of Porter’s Value Chain (or VC Analysis) to outline a content value chain and critical decision-making questions for the delivery of online training to adults. The stages used along the value chain were: content research/sourcing; content planning, structure & development; content authorization & access; content marketing and delivery; and content consumption. Suggestions were also based on success stories and lessons learned across the value chain, and on similar projects in the past. Among these were the adoption and use of: official course templates, LMS governance (content inclusion, content lifecycle, content ownership policies etc.), Communications and advocacy plan, course analytics, monitoring, evaluation and reporting templates. Decision-making questions at each identified stage in the value chain were used to make the scope of the proposed initiative more discernible to team members.

Mr Anton Ellenbroek from the Food and Agriculture Organization of the United Nations (FAO) made an introduction to FAO Capacity Building in Fisheries.

Abstract

FAO Rome presented a part of its capacity development portfolio related to online information management, with a focus on SDG 14.4.1. Presented solutions range from data collection tools for artisanal fisheries (such as Artfish and SSFK that is developed with Santa Lucia, Trinidad and Tobago and Panama, or the mobile data collection App Platform SmartForms), fisheries data harmonization (such as the iMarine VRE for WECAFC), geospatial data management (such as the Vulnerable Marine Environments VRE and the FIRMS Map Viewer),

and SDG 14.4.1 training (in an interactive eLearning stock analysis tool). FAO has implemented the Fisheries and Resources Monitoring System (FIRMS), and in particular the WECAFC-FIRMS partnership (some 50 stocks). Although most presented capacity building is of course fisheries sector oriented, also spatial planning, statistics and ecological issues are covered at regional and global level.

FAO will continue, through the FIRMS partnership and other activities, to support fisheries and aquaculture related capacity development, and the CLME+ project can continue to liaise with FAO Headquarters and regional office on collaborations. For specific capacity development activities related to the above, FAO can assist in establishing knowledge platforms or services.

Ms Claudia Delgado from OceanTeacher Global Academy made an introduction to OTGA Concept and Network.

Abstract

The OceanTeacher Global Academy (OTGA) Project aims at building equitable capacity related to ocean research, observations and services in all IOC Member States.

UNESCO/IOC's International Oceanographic Data and Information Exchange (IODE) Programme has built a comprehensive Learning Management System (OceanTeacher) that, in combination with classroom training, has trained thousands of marine professionals since from 120 countries since 2005. This success demonstrates the expertise within IODE and its potential to expand the use of this methodology to other IOC programmes. The OTGA Project can support other existing training programmes of the IOC and make the OceanTeacher e-Learning Platform widely available. The OceanTeacher Global Academy benefits all IOC Member States with special emphasis on developing regions. The regional implementation methodology enables the training programmes to be self-driven with great attention to local requirements, language and culture. Equally substantial attention is given to local ownership as the Regional Training Centres (RTCs), supported by the host countries. In addition, the OceanTeacher Global Academy validates the expertise available in developing regions and promotes their self-reliance in terms of specialized technical training and higher education related to ocean science, observation and data/information management.

The specific objectives of the OceanTeacher Global Academy (OTGA) Project are:

- Promoting the establishment, and assisting with the start-up, of Regional Training Centres (OTGA RTCs) that will plan, organize and implement training courses that are of relevance to, and serve needs within their region;
- Promoting the use of local experts as lecturers and training assistants by the OTGA Regional Training Centres;
- Promoting the collaboration between the OTGA Regional Training Centres by enabling (through advanced information technology) lecturers from multiple regions to contribute lectures;
- Further developing the OceanTeacher Learning Management System to cover multiple IOC (and associate) programmes.

Mr Alejandro Acosta from the Gulf and Caribbean Fisheries Institute (GCFI) made a presentation entitled "A scientific forum for fisheries and marine resource management in the Gulf of Mexico and the wider Caribbean."

Abstract

To advance the goals of sustainable use, wise management, conservation, and restoration of marine and estuarine fisheries and resources in the region by providing a forum for the

exchange of information and perspectives among decision makers, scientists, managers, educators, resource users, and students.

“Building Capacity through Scientific Exchange”

Offered to all Caribbean based fisheries professionals a training opportunity at the University of Florida, USA.

“Objective: Facilitating Resiliency in Fisheries and Associated Ecosystems.”

A four-month training will focus on:

- (1) Fisheries governance and policy,
- (2) Community based fisheries co management,
- (3) Data collection and analysis methods or
- (4) Learning GIS.

CLME+ Partnership

Identify Science Policy Gaps in the countries sharing the Caribbean and North Brazil Shelf Large Marine Ecosystems.

1. Expand the knowledge base required for implementation of Ecosystem Approach of Key Fisheries including flyingfish; spiny lobster; and shrimp and groundfish in the CLME+ region.
2. Expand the knowledge base to support habitat protection and restoration in the CLME+ region.
3. Expand the knowledge base required for the efficient and cost effective reduction of LBS pollution in the CLME+.

Ms Margarita Ontiveros from the National Council of Science and Technology (CONACYT) of Mexico made an introduction to Virtual Training Center to CONRICYT.

Abstract

The Training Center of Consorcio Nacional de Recursos de Información Científica y Tecnológica [National Consortium of Scientific and Technological Information Resources, CONRICYT] has as a goal to foster information literacy as regards information retrieval skills.

Contents

Each module comprises a topic and must follow a thematic structure from the simplest to the most complex knowledge.

At the end of each Module, end users have to assess themselves to find out whether they reached or not the objectives of the module in question.

Didactic design of the content

In the platform, each course will have its own space, which will be divided into Modules and these, in three sections.

LMS authoring tools for distance education

These tools are edition programs from open source educational websites with them, web contents can be produced with no need for technical expertise in programming, and they are intuitive and easy to use.

Possible uses for these tools:

- a. Create a website with its corresponding main menu
- b. Implement multimedia content
- c. Export projects, mainly in two formats: independent website and SCORM
- d. Create interactive activities such as:
 - Multiple choice questionnaires,
 - True false,
 - Short answer.
- e. The content generated can be viewed with the most important web browsers: Chrome, Mozilla Firefox, Internet Explorer and Safari

Ms. Laura Jaramillo from Conservation International (CI) made an introduction to the Ocean Health Index (OHI).

Abstract

CI presented the Ocean Health Index (<http://www.oceanhealthindex.org/>), which is a comprehensive framework for evaluating the conditions of many things people value about oceans. A collaborative initiative between the National Center for Ecological Analysis and Synthesis (NCEAS) and Conservation International, OHI is the first ocean assessment tool to scientifically compare and combine key elements from all dimensions of the ocean's health – biological, physical, economic and social. By integrating information from many different disciplines and sectors, the Index represents a significant advance over conventional single-sector approaches to assessing ocean condition.

The OHI utilizes nearly 200 global data sets that provide information on ocean and coastal habitats and species, ocean physical attributes (temperature, acidification), ocean economies, fisheries, mariculture, and natural products, and human use.

While all of these data are open access, they are often locked in spreadsheets, making it hard to quickly visualize overall trend information or make comparisons with local datasets.

In partnership with Esri (Environmental Systems Research Institute), OHI will be able to unlock these data and lower the barriers for ocean managers to better understand their regional ocean health and make sustainable ocean management decisions.

Ocean Health Hubs will make engaging ocean governments more efficient by streamlining ocean data management, target setting, and communication into one tool that can be easily accessed and updated by multiple collaborators (citizens, scientists, managers, non-profits, and governmental agencies).

These data visualization and collaboration centres will allow for faster progress on establishing ocean policies and advancing ocean priority setting. The Ocean Health Hubs can be used as

the first step in regional OHI+ assessments or on their own to track ocean conservation investments and sustainable ocean management within a region.

Ms Paula Sierra from Marine and Coastal Research Institute (INVEMAR, Colombia), made an introduction to Caribbean Marine Atlas.

Abstract

Caribbean Marine Atlas (CMA) has a goal to offer a digital online platform that supports process as Integrated Coastal Zone Management (IZCM) and Ecosystem-Based Management (EBM). These platforms can be a storage system for spatial files (as shapes, images, etc.) that are the result of the virtual training courses. The CMA information can have access through web services (<https://www.caribbeanmarineatlas.net/developer/>).

The clearinghouse mechanism (CHM), provide to the users in Member States with direct and rapid access to relevant sources of information, practical expertise in the transfer of marine technology, as well as to facilitate effective scientific, technical and financial cooperation to that end.

This platform has great versatility to upload information, extract structured data from web services and using web scraping for direct extraction from web pages. It is useful to index data about the availability of the courses. However, is not useful to structure data content and reference material to virtual training.

Mr Christopher Corbin from the Caribbean Environment Programme of the United Nations Environment Programme (UNEP-CEP) made an introduction to Pollution & Communications Secretariat to the Cartagena Convention.

Abstract

“Mr Chris Corbin, representing the Cartagena Convention Secretariat and Regional Seas Programme for the Wider Caribbean Region (Caribbean Environment Programme) presented an overview of the geographical scope and mandate of their programme. He highlighted the major areas of focus as the protection and conservation of marine biodiversity and the control, prevention and reduction of pollution from land and marine-based sources.

Several capacity building and training activities have been organized by their Secretariat to assist Governments in complying with their national Convention obligations. These were designed to enable more effective use of management tools and approaches; support improved national and regional oceans governance; empower persons including resource managers; youth; local communities; support enforcement and informed policy & decision-making; facilitate data and information generation, analysis, sharing and reporting and help respond to environmental risks and hazards.

Mr Corbin highlighted some of the lessons learned from their capacity building and data sharing activities including the importance of using existing regional frameworks and institutions and targeting multiple stakeholders/users with one of the main challenges being the sharing of sensitive water quality data. The success of networks such as CAMPAM for Marine Protected Area Managers and Professional/Community Exchanges were highlighted.

Mr Corbin then identified some of the frameworks as well as existing tools and mechanisms managed and/or under development by the Secretariat. These frameworks include use of: Government Experts for Biodiversity & Pollution; Regional Activity Centres, Collaborating Agencies & Partners, and Regional Nodes forming a supporting Regional Activity Network for provision of training and capacity building.

He concluded by emphasizing the importance of defining: (1) Modality for Training; (2) Audience; (3) Level - Regional, National, or Local; (4) Training opportunities, and recommended that training should consider the target audience, language and culture; should include both formal and informal opportunities; and consider different delivery mechanisms including Massive Open Online Courses (MOOCs), Online Courses and Blended Training. The increased importance of Citizen Science and the incorporation of Social Media and Digital Tools were singled out.

He concluded by reiterating the importance of having ongoing Monitoring & Evaluation of the effectiveness of any Training carried out as well as the use of the proposed portal with the underlying basis of ensuring Institutional & Financial Sustainability.”

4. STAKEHOLDERS MAPPING, PLATFORM FUNCTIONALITIES & DELIVERY MECHANISMS, CONTENT, MATERIALS, PARTNERSHIPS

The participants were organized into two groups, each of these to discuss two main themes of the product:

Group 1. The development of the technical and operational part of the web portal. System design & architecture - overview of relevant technology solutions.

NAME	AFFILIATION
Tim Deprez	Ghent University
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Luis Castellanos	Sistema de Integración Centroamericana (SICA)
Anton Ellenbroek	FAO
Margarita Ontiveros	CONACYT
Leonardo Arias	Marine and Coastal Research Institute (INVEMAR, Colombia)
Julian Pizarro	Marine and Coastal Research Institute (INVEMAR, Colombia)

Group 2. The development of the content, materials, partnerships and tools contained in the web portal. Identification of training and capacity building, opportunities/materials on issues of key/cross-cutting importance for the CLME+ SAP Strategies.

NAME	AFFILIATION
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5. GROUP REPORTING IN PLENARY

5.1 SUMMARY OF GROUP NO 1.

Development of the technical and operational part of the web portal. System design & architecture - overview of relevant technology solutions.

Summary of Discussions on the Training/Capacity Building Platform:

Functional and User Requirements:

- A place to find formal courses,
- A place to find content and resources,
- A place to find trainers,
- An archive for (or gateway to) training resources,
- Needs to support multilingual interface; content is in original language only,
- Ability for users to report errors,
- Ability for users to upload course details subject to approval by administrators,
- Insure structure search.

Audience:

- Students (undergrads),
- Professionals,
- Practitioners,
- Trainers,
- Government officers,
- Researchers,
- Policy/decision-makers.

Existing Resources:

- Technical:
 - Marine Training.eu, based on the Drupal Framework and on the XCRI – CAP standard,
 - CKAN – an out of the box system (a tool for making open data websites),
 - Build a new platform from scratch,
 - Use a profile of the standard in order to ensure minimum set of fields gathered.
- Content:
 - An inventory of 777 courses (BS, MS, and PhD) in the Americas,
 - A subset of these from the CLME + could be entered as a starting point,

- FAO training in relation to SDG 14 (e.g. sustainable fisheries) : the requirements of the Projects,
- FAO/WECAFC has data on stocks and fisheries,
- CMA 2 to underpin geospatial capacity building,
- Consider not just courseware but other resources (e.g. meetings, events, other capacity building materials),
- Should allow finding self-training materials: maps; training materials; POGO is one example,
- Maps, atlases, and other resources should be captured,
- Moodle and other interactive courses.
- Resources Required:
 - Allocate a responsible person in the secretariat to decide priorities,
 - Need people for the data entry,
 - Ten records per day-person can be entered,
 - There needs to be a design that takes on board different user journeys through the platform,
 - If Marine Training.eu chosen, then an agreement needed to be developed,
 - Ensure that a content QA plan is in place.
- Institutional Interactions:
 - Provide incentives to course providers; if they provide records to the portal, you offer them a customised course presentation page that they can embed in their own websites;
 - Start with some university” ambassadors” to showcase such a collaboration.
- Possible case studies:
 - Training and CB in relation to the SDGs,
 - Training and capacity building towards MSP.
- Evolution and Sustainability:
 - Need a core group to oversee and maintain the platform,
 - Consider how to measure impact,
 - Consider how it can evolve towards being a collaborative platform,
 - Virtual Research Environments (e.g. ESA-TEPs. iMarine) are platforms that offer the possibility of geospatial data analysis for CLME+ goals,
 - Marine Training. EU has sustainability guaranteed for a number of years,
 - How do we get info from NGOs, government agencies, etc. in the platform,
 - Incentives to providers of formal course e.g. embed our website in theirs,
 - Scalable and modular.

5.2 SUMMARY OF GROUP NO 2.

Development of the content, materials, partnerships and tools contained in the web portal. Identification of training and capacity building, opportunities/materials on issues of key/cross-cutting importance for the CLME+ SAP Strategies.

The first purpose is to define what kind of content should the portal have considering that the countries are interested in using the EBA (Ecosystem Based Adaptation) for the management of the resources; and that a permanent coordination system is being prepared. Therefore, the task of this team is to determine what kind of training will lead them to this end. What are the topics that are needed for them to manage their resources?

For example, it is a known fact that one of the barriers to achieve EBA is the weak governance structure; therefore, the countries need to develop the capacities in order to understand fully their functions.

Basic Contents:

To develop a proposal for basic contents it is necessary to identify:

- a. Core areas: Governance, pollution, fisheries, climate change, marine biodiversity. Additionally, transboundary subjects that are vital for the coordination and regional management of the ecosystems.
- b. Targeted audience: Governments, senior policy makers, country's representatives in international conventions, and the stakeholders with some input in the management of the marine resources (private sector),
- c. Potential partners,
- d. Materials,
- e. Identification of knowledge gaps,

Trainings:

1. Governance:
 - 1.1 Institutions, policy and regional legislation in the Caribbean,
 - 1.2 Leadership and decision making,
 - 1.3 MSR/UNCLOS (Possible alliance),
 - 1.4 Small scale fisheries governance (Too big to ignore),
 - 1.5 Long term mechanisms for financial sustainability of CLME+ region,
 - 1.6 Disaster preparation (risk reduction, natural hazards),
 - 1.7 Development of Safeguards and inclusion of traditional knowledge, minority groups and gender equality,
 - 1.8 Species identification for commercial purposes (strengthening capacities of borders officials),
 - 1.9 Reporting methods towards SDGs.
2. Pollution:
 - 2.1 Pollution literacy 101,
 - 2.2 Monitoring and analysis and reporting of pollutants (Priority most important pollutants),

- 2.3 Appropriate Communication of the collected Pollution data (Ex: story maps and social media),
 - 2.4 Technology choices for the management of the pollution,
 - 2.5 Best practices for prevention and reduction,
 - 2.6 Circular economy,
 - 2.7 Economic and social assessment of the impacts of pollution,
 - 2.8 Mitigation of the Harmful Algae Blooms (IOC).
3. Fisheries:
- 3.1 Fisheries 101 (managers and fisherfolk) concepts and terminology and methods,
 - 3.2 Stock assessment,
 - 3.3 EBA to fisheries and fisheries sustainability,
 - 3.4 New technologies for the control and surveillance of the resources,
 - 3.5 Traceability and eco-labeling,
 - 3.6 Data limited situations for decision making,
 - 3.7 Fisheries regulation,
 - 3.8 Conflict resolution technics (successful experiences),
 - 3.9 Exchange “in fisheries” (ex. between fishermen from industrial and artisanal sectors),
 - 3.10 Relation between fisheries and pollution,
 - 3.11 Socioeconomic context and assessment.
4. Climate Change (CC):
- 4.1 Climate change for financial institutions in Latin America and the Caribbean (Inter-American Development Bank [IADB]),
 - 4.2 Climate change impacts on ecosystems (oceans acidification, coral bleaching vs temperature),
 - 4.3 Climate change adaptation and mitigation (INVEMAR, British Columbia),
 - 4.4 Climate change science in negotiations (SDG Academy),
 - 4.5 Climate change International Legislation framework,
 - 4.6 Green development and CC (United Nations Institute for Training and Research [UNITAR]),
 - 4.7 CC modeling and scenarios (decision support system),
 - 4.8 Disaster preparation (risk reduction, natural hazards) ,
 - 4.9 Sargassum management (Gulf and Caribbean Fisheries Institute [GCFI]).
5. Marine Biodiversity:
- 5.1 MPA (OTGA),
 - 5.2 Marine Habitat conservation,
 - 5.3 Ecosystems good and services valuation,
 - 5.4 Marine spatial planning,

- 5.5 Integrated Coastal zone Management,
 - 5.6 OBIS Biodiversity data management (Ocean Biogeographic Information System [OBIS]),
 - 5.7 Blue Economy,
 - 5.8 International Legislation framework (Convention on Biological Diversity [CBD], United Nations Convention on the Law of the Sea [UNCLOS], Convention on International Trade in Endangered Species of Wild Fauna and Flora [CITES]),
 - 5.9 Tourism best practices,
 - 5.10 Exploration and exploitation: petrol, oil, carbon,
 - 5.11 Restoration (corals, mangroves....),
 - 5.12 Invasive species.
6. Crosscutting contents (*TBD*):
 - 6.1 Communications,
 - 6.2 Ocean literacy,
 - 6.3 Social economical contexts and challenges.

Alliances / Partnerships

1. International Oceans (IO) Institute
2. Canari
3. Non-Governmental Organizations (NGOs)
4. International Atomic Energy Agency (IAEA)
5. Food and Agriculture Organization of the United Nations (FAO)
6. Inter-American Development Bank (IDB)
7. Conservation training (TNC online)
8. Ocean Biogeographic Information System (OBIS)
9. EDX Platform for education and learning
10. International Maritime Organization (IMO)
11. MetEd
12. Secretaries of the international agreements
13. INVEMAR-RTC LAC (OTGA)

Materials and tools:

- Existing platforms and initiatives,
- Depending on the methodology decided for the classes.

6. MANAGEMENT ARRANGEMENTS, STRATEGY AND WORK PLAN

Audience:

- The idea is to start defining the audience that are the CMLE + stakeholders such as policy makers, political level and the management level such as the technicians (Ministries, agencies, officers...), there are also the regulatory persons and the ones

related to enforcement, monitoring and data analysis, private sector, decision makers, and the ones who communicate the decisions, academy and researchers, NGOs

- Suggestion: include the policy cycle, visual clarity to remember us why this is the targeted audience.
- The general public will not be excluded, so it is important to include the communities, students, amongst others.
- Strategically is better to prioritize the people surrounding (responsible for) the policy cycle and then expand it to the general public.
- It would be dangerous to restrict the audience at this point. For a TTT is better to include all the sectors and later on prioritize.

Topics:

These have to be related to the CLME+, and as a strategy, the project could do a baseline and a survey with the focal points.

When the group 2 was discussing the contents, it was more regarding the topics and scoping the umbrella area that could respond to the needs of the region.

It could be useful to have a sort of cross cutting to the sub subjects. Ex: integrated approaches, from reef to ridge, amongst others. The task is for the project team to do so.

In the group 2 document, the references in (brackets) are courses or trainings that already exist

The group reviewed the proposal for the areas that are recommend for the portal.

The **search engine** should be able to link these topics with broad standardized **thematic categories**.

Functionality:

- It is very important to map the available resources such as marine training, OTGA. Other more generic platforms were not discussed in the group.
- It is important to have alliances that may have other solutions.
- It would be useful a matrix comparing the groups identified actors.
- The features of the portal such as a catalog are key.
- TTT recommends the adoption of Marine training as a starting point of collaboration and acknowledges that other solutions are available.
- The Drupal platform proposed allows tailoring to the region's requirements.
- This is considering the time and budgeted limitations.
- In the marine training is necessary to consider the number of data collected, which requires a lot of manpower. It would be necessary to consider that they needed a person working full time for 2 years.

- Adopt a minimum profile and standard to minimize the resources requirements.
- The platform could offer something in return to the people that offer the courses.
- Adaptation of the attributes.
- The professional exchanges and student internships are an opportunity.

What are the minimum elements in order to apply this platform?

- Establish the **collaboration** between platforms and agencies.
- **Data loading in the platform- source of information.**
- **Design the system and interfaces/ user experience CLME Customize.**

What is the most relevant content to upload in the platform?

- Location of the server is not a relevant issue if it serves the region.
- Does the platform harvest the content or is it uploaded?
- How many people will have access and membership?
- Feedback on the different platforms and trainings being used by the CLME+.
- Repository of what exists as a catalogue.
- The platform will have a membership or alliances to access it.
- The solution has to have a lot of marketing.
- Survey to the countries to determine their needs and interests. GCFI can help with their mailing list. The other members of the team could also help with this.
 - This to gain the recognition and their inputs.
 - What kind of training have you already done in the last 3 years? (formal, short term, long term and topics or thematic (click for the topic)
 - Where did you go to find out the available training? link
 - Would you be interested in a portal containing marine training opportunities?
 - No open questions.
 - Link providing.
 - Communications strategy to avoid multiple efforts.
 - Introduction and deadline.
 - Candice is going to send a text document for the TTT to review and to send it through survey monkey.
- Conclusion: Existing platform and tailor it to include the topics relevant for CLME +.

- Include a consultative process to validate the initiative with some key stakeholders (regional, practitioners, amongst others).
- Prioritize the content using the resources that are known and recognized by the group.
- Alliances with particular agencies to be able to share their resources.

What do we need to achieve the deadline and the estimate costs?

- For the platform to be online there is a great need of time. On the other hand, with the EU marine training platform that would be easier.
- Assuming that the platform is ready in a couple of months, does the secretary has the resources to upload the information? What are the minimum requirements?
- The platform has to be at least as good as the webpage of the CLME+.
- The implementation could be divided in 5 subparts:
 - Identify the profile,
 - Review the web design and define if it is in accordance with the project,
 - Otherwise, we need to develop the interface,
 - Implement the minimum attributes as well as the web design,
 - Upload the system.
- It is easier to use the existing design, so the platform has the same identity.
- It is necessary to review if the functionalities of marine training to respond to the necessities of the CLME+.
- Big worries: are the agencies interested (have the capacity) in other entities having their information? Is it possible to harvest directly?
- Web scrapping VS person who is in charge of uploading the information.
- **Data on every course has to be in the platform in order to be searched. So we have to harvest the information by:**
 - Link.
 - By hand pulling the information and copying, it in the platform because not all the formats are the same (excels by hand). These people need to be trained.
 - At this stage, it is not possible to make an automatic process. Maybe in a long term, when the project can probe the value of the tool and offers something interesting in exchange.
 - Use of multilanguage.
- There are many variables for the time estimation.

- There is a need of a discussion with the Marine Training platform developers to determine the critical phases and in order to adapt.
- In **7 months** we could have beta version in accordance with the collected data. The project can collect the information and develop the web page at the same time. The time depends on the goals of the project in terms of the information they want to publish.
- It is important to start raising the awareness of the CLME on this matter so the collection of the data will be easier.

An estimation of cost is very hard to achieve, but we know that it is necessary to have a full time operator. That is trained in feeding the beta version.

There is a way of sharing the information through an application that allows the agencies to feed the information in the platform because of the use of the same interface. **It is important to consider how these alliances are going to be.**

How is going to be the update of the platform?

- With a modification of the selected web page for an automatic harvesting from the original sources.
- With a harvesting semi-automatic because de data are not complete so that would need manual process.
- When there are no resources, some has to it manually through a format. Entities will be in charge of that and they will need to have to will to feed the platform.

Do we have any idea of how many courses on these fields are available?

Human resources:

- Coordination manager,
- IT (designer developer) - probably a team at different scales,
- Entry person,
- Charge of the allies?
- Communications person.

The partners of the CLME should provide some resources so they feel as a part of the initiative

Where is it going to be hosted? That also represent some costs.

The idea is for the platform to go operational in July 2020. For that, it is necessary to determine:

- Content (# of courses),
- Feeding system-integration features,
- User base.

Sustainability plan:

- Effective IT system that is easily upgraded,
- Estimation of future costs,
- Allocation of funds of external GEF projects,
- Use of the alliance with Marine Training (cost),
- Allocation resources from the secretary and the CLME+,
- Publicity- communications strategy –networks-social media,
- Real capacity building program.

It is necessary that all the allies feed their own platform.

The future integration of the training and capacity-building portal with capacity building activities in the region will have to be described. In the first step, we inventory the sources and content of the training but we are not validating the impact of it on capacity building, and CLME+ does not provide support for online, customized training. A next phase should consider if and how CLME+ can deliver effective training and capacity building.

7. MAIN TECHNICAL TASK TEAM RECOMMENDATION

Among the main tasks, the Technical Task Team was tasked to **Review** relevant online software platforms already in place amongst the partnership and compare these with the requirements, and based on that review, to **Recommend** an online software platform solution(s) based on one or more existing platforms.

Considering the review carried out by the Technical Task Team and the time and financial and human resources allocated / available to develop and implement the capacity-development (CD) portal, the TTT **recommended** to develop the CLME+ CD, training portal by using as basis and core platform “**MarineTraining**” of the University of Ghent. (Ref. <http://www.marinetraining.eu/>)

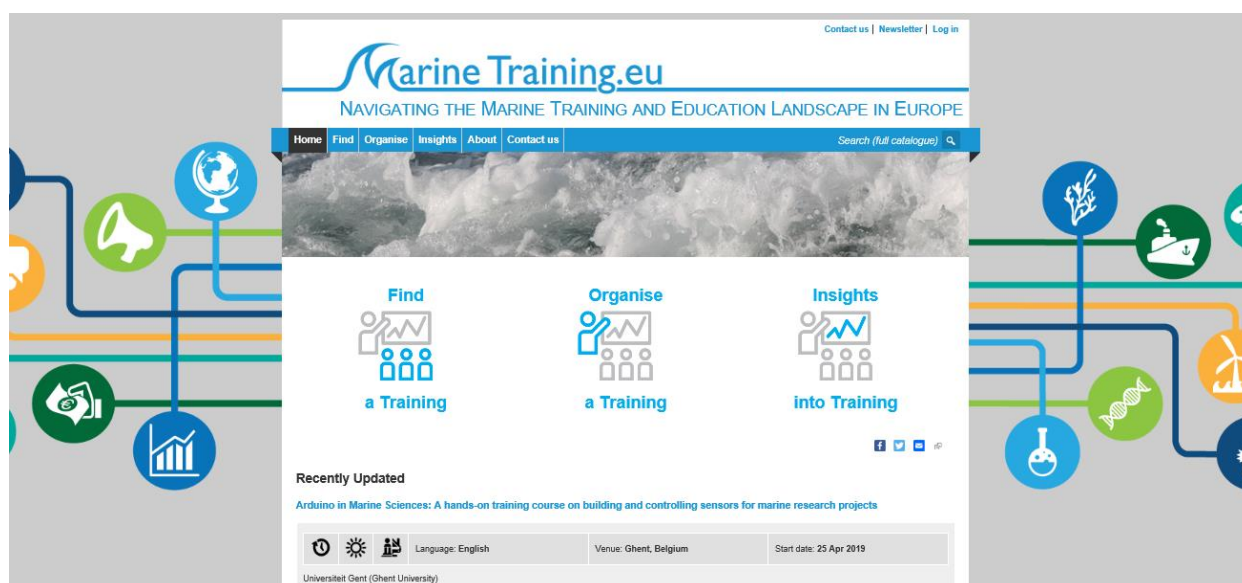


Figure 1. Marine Training portal from University of Ghent .

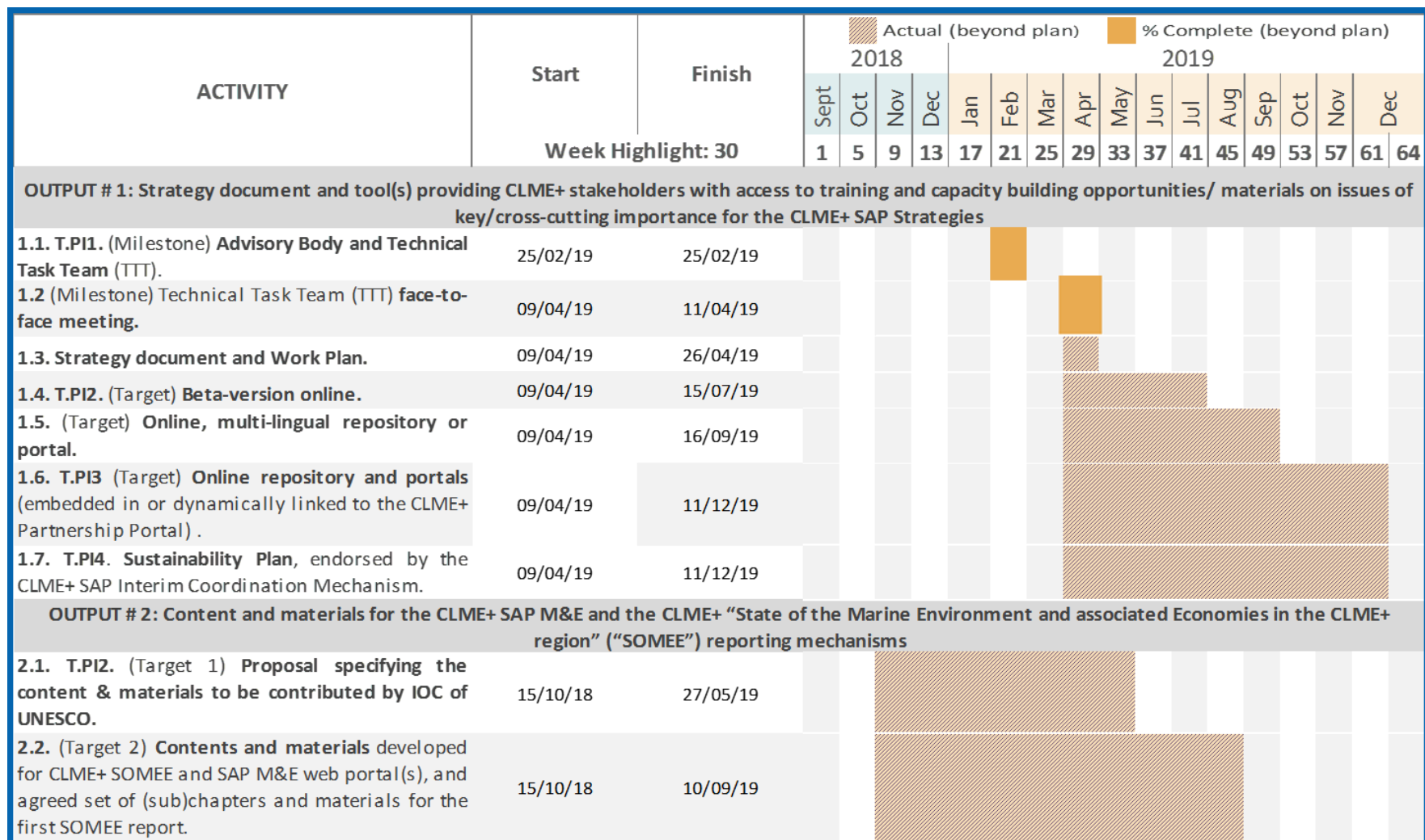


Figure 2. Logframe and deadlines

ANNEX I

PROVISIONAL AGENDA

TUESDAY, 9 APRIL 2019

Session 1
09h00–10h00

- 1. OPENING OF THE MEETING**
 - 1.1 Welcome
 - 1.2 Adoption of the Agenda
 - 1.3 Introduction of participants
- 2. CLME+: SETTING THE SCENE**
 - 2.1 Introduction and presentation of the CLME+ SAP and project.
 - 2.2 Presentation of the Terms of Reference (TORs) for the Technical Task Team (TTT), and the Implementation Schedule

10h00–10h20 Break

Session 2
10h20–12h00

- 2.3 Presentation of the Output #1 to be developed: Strategy document and tools providing CLME+ stakeholders with access to training and capacity building opportunities/ materials on issues of key/cross-cutting importance for the CLME+ SAP Strategies.

3. POTENTIAL USEFUL PLATFORMS, FUNCTIONALITIES & TOOLS

Each representative will be invited to provide a brief presentation on their agency / institution strategies and tools for training and capacity building opportunities/ materials, and to make preliminary proposals on collaborative activities.

1. Ghent University - Marine Training platform
2. Cap-Net PNUD – LA WETnet.
3. University of the West Indies (Centre of Excellence & Innovation)
4. ICAN

12h00–13h30 Lunch break

Session 3
13h30–17h30

5. SICA
6. Candice Sankarsingh
7. FAO (iMarine)
8. IODE & OTGA
9. GCFI
10. CONACYT – CONRICyT
11. Conservation International

12. INVEMAR-CMA2.

13. UNEP-CEP.

17h30–17h45 Group1 and Group 2 organisation.

WEDNESDAY, 10 APRIL 2019

Session 1
08h30–12h00

4. STAKEHOLDER MAPPING, PLATFORM FUNCTIONALITIES & DELIVERY MECHANISMS, CONTENT, MATERIALS, PARTNERSHIPS.

- 4.1 Participants will be divided in 2 groups:
- Group 1 will be responsible for contributing to the development of the technical and operational part of the web portal. System design & architecture - overview of relevant technology solutions.
 - Group 2 will be responsible for contributing to the development of the content, materials, partnerships and tools contained in the web portal. Identification of training and capacity building, opportunities/materials on issues of key/cross-cutting importance for the CLME+ SAP Strategies

12h00–13h30 Lunch break

Session 2
13h30–15h30

5. GROUP REPORTING IN PLENARY

- 5.1 Summary of the working groups. Group 1 and Group 2 will report in plenary and summarize their main recommendations and conclusions

15h30–15h50 Break

Session 3
15h50–17h30

5.2 Functionality requirements

Based on the results obtained from the workshop so far, the functionality requirements, delivery mechanisms, contents and materials for the platform will be discussed.

THURSDAY, 11 APRIL 2019

Session 1
08h30–12h00

6. MANAGEMENT ARRANGEMENTS, STRATEGY AND WORK PLAN

Elaboration of the Draft Strategy Document and Work Plan, detailing conceptual design & scheme for the online “training opportunities & materials” portal, and associated implementation steps).

Based on the results from the previous agenda items, the objective, output, and associated timeline and management arrangements will be reviewed, and revised –as applicable.

12h00–13h30 Lunch break

Session 2

13h30–17h00

Continuation and finalization of item 6, Management Arrangements, and Work Plan. Summary of the TTT recommendations.

CLOSING OF THE MEETING

ANNEX II

PROVISIONAL TIMETABLE

Hrs.	TUESDAY / MARTES 9 April/Abril	WEDNESDAY / MIERCOLES 10 April/Abril	THURSDAY / JUEVES 11 April/Abril
09:00	08:30 – 0900 Registration. 1. OPENING OF THE MEETING 1.1 Welcome 1.2 Adoption of the Agenda 1.3 Introduction of participants 2. CLME+: SETTING THE SCENE 2.1 Introduction and presentation of the CLME+ SAP and project. 2.2 Presentation of the Terms of Reference (TORs) for the Technical Task Team (TTT), and the Implementation Schedule <i>- Group Photo</i>	4. STAKEHOLDER MAPPING, PLATFORM FUNCTIONALITIES & DELIVERY MECHANISMS, CONTENT, MATERIALS, PARTNERSHIPS. 4.1 Participants will be divided in 2 groups: • Group 1. System design & architecture - overview of relevant technology solutions. • Group 2. Content, materials, partnerships and tools contained in the web portal.	6. MANAGEMENT ARRANGEMENTS, STRATEGY AND WORK PLAN Elaboration of the Draft Strategy Document and Work Plan
10:00	COFFEE BREAK / CAFÉ	COFFEE BREAK / CAFÉ	COFFEE BREAK / CAFÉ
10:20	2.3 Presentation of the Output #1 3. POTENTIAL USEFUL PLATFORMS, FUNCTIONALITIES & TOOLS 1) Ghent University - Marine Training platform 2) Cap-Net PNUD – LA WETnet. 3) University of the West Indies. 4) ICAN	Continuation and finalization of item 4.	• Continuation of item 6. Management Arrangements, and Work Plan.
12:00	LUNCH / ALMUERZO	LUNCH / ALMUERZO	LUNCH / ALMUERZO
13:30	5) SICA 6) Candice Sankarsingh 7) FAO (iMarine) 8) IODE & OTGA 9) GCFI	5. GROUP REPORTING IN PLENARY 5.1 Summary of the working groups. Group 1 and Group 2 will report in plenary and summarize their main recommendations and conclusions.	Continuation of item 6, Management Arrangements, and Work Plan.
15:30	COFFEE BREAK / CAFÉ	COFFEE BREAK / CAFÉ	COFFEE BREAK / CAFÉ
15:50	10) CONACYT – CONRICyT 11) Conservation International 12) INVEMAR-CMA2. 13) UNEP-CEP.	5.2 Functionality requirements Based on the results obtained from the workshop so far, the functionality requirements, delivery mechanisms, contents and materials for the platform will be discussed.	Continuation and finalization of item 6, Management Arrangements, and Work Plan. Summary of the recomendations.
17:30	17h30-17h45 Group1 and Group 2 organisation.		7. CLOSING OF THE MEETING
After dark	• 18:00 Informal get together		

ANNEX III

PROVISIONAL LIST OF PARTICIPANTS



TECHNICAL TASK TEAM WORKSHOP CLME+ PROJECT

(Cartagena, Colombia 9 – 11 April 2019)

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ANNEX IV

LIST OF ACRONYMS

CBD	Convention on Biological Diversity
CBO	Community based Organizations
CC	Climate Change
CCAD	Central American Commission on Environment and Development
CHM	clearinghouse mechanism
CI	Conservation International
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CLME	Caribbean Large Marine Ecosystem
CMA	Caribbean Marine Atlas
CONACYT	National Council of Science and Technology
CONRICYT	National Consortium of Scientific and Technological Information Resources
CSOD	Caribbean School of Data
CWAs	Coastal Web Atlases
EAF	Ecosystem Approach for the management of key Fisheries
EBA	Ecosystem Based Adaptation
EBM	Ecosystem-Based Management
EMBRC	European Marine Biological Resource Centre
ERAM	Regional Environmental Strategy Framework
FAO	Food and Agriculture Organization of the United Nations
FIRMS	Fisheries and Resources Monitoring System
GCFI	Gulf and Caribbean Fisheries Institute
GEF	Global Environment Facility
IAEA	International Atomic Energy Agency
ICAN	International Coastal Atlas Network
IDB	Inter-American Development Bank

IMO	International Maritime Organization
INVEMAR	Marine and Coastal Research Institute
IOC	Intergovernmental Oceanographic Commission (UNESCO)
IOCARIBE	IOC Sub-Commission for the Caribbean and Adjacent Regions
IZCM	Integrated Coastal Zone Management
MSR	Marine Scientific Research
NGO	Non-Governmental Organization
OAR	Regional Environmental Observatory
OBIS	Ocean Biogeographic Information System
OHI	Ocean Health Index
OTGA	OceanTeacher Global Academy
PPIS	Programmes, projects and initiatives
RTC	Regional Training Centres
SAP	Strategic Action Programme
SDG	Sustainable Development Goal
SICA	Sistema de Integración Centroamericana
TTT	Technical Task Team
UNCLOS	United Nations Convention on the Law of the Sea
UNDP	United Nations Development Programme
UNEP-CEP	Caribbean Environment Programme of the United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNITAR	United Nations Institute for Training and Research

IOC Workshop Reports

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No.	Title	Languages	No.	Title	Languages	No.	Title	Languages
1	CCOP-IOC, 1974, Metallogenesis, Hydrocarbons and Tectonic Patterns in Eastern Asia (Report of the IDOE Workshop on); Bangkok, Thailand, 24-29 September 1973 UNDP (CCOP).	E (out of stock)		5-9 June 1978 (UNESCO reports in marine sciences, No. 5, published by the Division of Marine Sciences, UNESCO).		40	24-29 September 1985. IOC Workshop on the Technical Aspects of Tsunami Analysis, Prediction and Communications; Sidney, B.C., Canada, 29-31 July 1985.	E
2	CICAR Ichthyoplankton Workshop, Mexico City, 16-27 July 1974 (UNESCO Technical Paper in Marine Sciences, No. 20).	E (out of stock) S (out of stock)	20	Second CCOP-IOC Workshop on IDOE Studies of East Asia Tectonics and Resources; Bandung, Indonesia, 17-21 October 1978	E	40 Suppl.	First International Tsunami Workshop on Tsunami Analysis, Prediction and Communications, Submitted Papers; Sidney, B.C., Canada, 29 July-1 August 1985.	E
3	Report of the IOC/GFCM/ICSEM International Workshop on Marine Pollution in the Mediterranean; Monte Carlo, 9-14 September 1974.	E, F E (out of stock)	21	Second IDOE Symposium on Turbulence in the Ocean; Liège, Belgium, 7-18 May 1979.	E, F, S, R	41	FAO/IOC/WMO/IAEA/UNEP Project on Monitoring of Pollution in the Marine Environment of the West and Central African Region (WACAF/2); Dakar, Senegal, 28 October-1 November 1985.	E
4	Report of the Workshop on the Phenomenon known as 'El Niño'; Guayaquil, Ecuador, 4-12 December 1974.	E (out of stock) S (out of stock)	22	Third IOC/WMO Workshop on Marine Pollution Monitoring; New Delhi, 11-15 February 1980.	E, F, S, R	41	IOC Workshop on the Results of MEDALPEX and Future Oceanographic Programmes in the Western Mediterranean; Venice, Italy, 23-25 October 1985.	E
5	IDOE International Workshop on Marine Geology and Geophysics of the Caribbean Region and its Resources; Kingston, Jamaica, 17-22 February 1975	E (out of stock) S	23	WESTPAC Workshop on the Marine Geology and Geophysics of the North-West Pacific; Tokyo, 27-31 March 1980.	E, R	43	IOC-FAO Workshop on Recruitment in Tropical Coastal Demersal Communities; Ciudad del Carmen, Campeche, Mexico, 21-25 April 1986.	E (out of stock) S
6	Report of the CCOP/SOPAC-IOC IDOE International Workshop on Geology, Mineral Resources and Geophysics of the South Pacific; Suva, Fiji, 1-6 September 1975.	E	24	Workshop on the Inter-calibration of Sampling Procedures of the IOC/WMO/UNEP Pilot Project on Monitoring Background Levels of Selected Pollutants in Open-Ocean Waters; Bermuda, 11-26 January 1980.	E (out of stock)	44	IOC-FAO Workshop on Recruitment in Tropical Coastal Demersal Communities, Submitted Papers; Ciudad del Carmen, Campeche, Mexico, 21-25 April 1986.	E
7	Report of the Scientific Workshop to Initiate Planning for a Co-operative Investigation in the North and Central Western Indian Ocean, organized within the IDOE under the sponsorship of IOC/FAO (IOFC)/UNESCO/EAC; Nairobi, Kenya, 25 March-2 April 1976.	E, F, S, R	25	IOC Workshop on Coastal Area Management in the Caribbean Region; Mexico City, 24 September- 5 October 1979.	E, S	44 Suppl.	IOCARIBE Mini-Symposium for the Regional Development of the IOC-UN (OETB) Programme on 'Ocean Science in Relation to Non-Living Resources (OSNLR)'; Havana, Cuba, 4-7 December 1986.	E
8	Joint IOC/FAO (IPFC)/UNEP International Workshop on Marine Pollution in East Asian Waters; Penang, 7-13 April 1976	E (out of stock)	26	CCOP/SOPAC-IOC Second International Workshop on Geology, Mineral Resources and Geophysics of the South Pacific; Noumea, New Caledonia, 9-15 October 1980.	E	45	AGU-IOC-WMO-CPPS Chapman Conference: An International Symposium on 'El Niño'; Guayaquil, Ecuador, 27-31 October 1986.	E
9	IOC/CMG/SCOR Second International Workshop on Marine Geoscience; Mauritius 9-13 August 1976.	E, F, S, R	27	FAO/IOC Workshop on the effects of environmental variation on the survival of larval pelagic fishes. Lima, 20 April-5 May 1980.	E	46	CCALR-IOC Scientific Seminar on Antarctic Ocean Variability and its Influence on Marine Living Resources, particularly Krill (organized in collaboration with SCAR and SCOR); Paris, France, 2-6 June 1987.	S
10	IOC/WMO Second Workshop on Marine Pollution (Petroleum) Monitoring; Monaco, 14-18 June 1976	E, F E (out of stock) R	28	WESTPAC Workshop on Marine Biological Methodology; Tokyo, 9-14 February 1981.	E	47	IOC Workshop on the Biological Effects of Pollutants; Oslo, 11-29 August 1986.	E
11	Report of the IOC/FAO/UNEP International Workshop on Marine Pollution in the Caribbean and Adjacent Regions; Port of Spain, Trinidad, 13-17 December 1976.	E, S (out of stock)	29	International Workshop on Marine Pollution in the South-West Atlantic; Montevideo, 10-14 November 1980.	E (out of stock) S	47	Workshop on Sea-Level Measurements in Hostile Conditions; Bidston, UK, 28-31 March 1988.	E
11 Suppl.	Collected contributions of invited lecturers and authors to the IOC/FAO/UNEP International Workshop on Marine Pollution in the Caribbean and Adjacent Regions; Port of Spain, Trinidad, 13-17 December 1976	E (out of stock), S	30	Third International Workshop on Marine Geoscience; Heidelberg, 19-24 July 1982.	E, F, S	48	IBCCA Workshop on Data Sources and Compilation, Boulder, Colorado, 18-19 July 1988.	E, S
12	Report of the IOC/FAO/UNEP International Workshop on Marine Pollution in the Caribbean and Adjacent Regions; Port of Spain, Trinidad, 13-17 December 1976	E, F, S	31	UNU/IOC/UNESCO Workshop on International Co-operation in the Development of Marine Science, and the Transfer of Technology in the context of the New Ocean Regime; Paris, France, 27 September-1 October 1982.	E, F, S	49	IOC-FAO Workshop on Recruitment of Penaeid Prawns in the Indo-West Pacific Region (PREP); Cleveland, Australia, 24-30 July 1988.	E
13	Report of the IOC/FAO/UNEP International Workshop on Marine Pollution in the Gulf of Guinea and Adjacent Areas; Abidjan, Côte d'Ivoire, 2-9 May 1978	E, F, S	32 Suppl.	Papers submitted to the UNU/IOC/UNESCO Workshop on International Co-operation in the Development of Marine Science, and the Transfer of Technology in the Context of the New Ocean Regime; Paris, France, 27 September-1 October 1982.	E	50	IOC Workshop on International Co-operation in the Study of Red Tides and Ocean Blooms; Takamatsu, Japan, 16-17 November 1987.	E
14	IOC/FAO/WHO/UNEP International Workshop on Marine Pollution in the Gulf of Guinea and Adjacent Areas; Abidjan, Côte d'Ivoire, 2-9 May 1978	E, S	33	Workshop on the Improved Uses of Research Vessels; Lisbon, Portugal, 28 May-2 June 1984.	E	51	International Workshop on the Technical Aspects of the Tsunami Warning System; Novosibirsk, USSR, 4-5 August 1989.	E
15	CPPS/FAO/IOC/UNEP International Workshop on Marine Pollution in the South-East Pacific; Santiago de Chile, 6-10 November 1978.	E (out of stock)	34	Papers submitted to the IOC/FAO Workshop on the Improved Uses of Research Vessels; Lisbon, 28 May-2 June 1984	E	52	Second International Workshop on the Technical Aspects of Tsunami Warning Systems, Tsunami Analysis, Preparedness,	E
16	Workshop on the Western Pacific, Tokyo, 19-20 February 1979.	E, F, R	35	IOC/UNESCO Workshop on Regional Co-operation in Marine Science in the Central Eastern Atlantic (Western Africa); Tenerife, 12-17 December, 1963.	E, F, S	53		
17	Joint IOC/WMO Workshop on Oceanographic Products and the IGOS Data Processing and Services System (IDPSS); Moscow, 9-11 April 1979.	E, F, S	36	CCOP/SOPAC-IOC-UNU Workshop on Basic Geo-scientific Marine Research Required for Assessment of Minerals and Hydrocarbons in the South Pacific; Suva, Fiji, 3-7 October 1983.	E	54		
17 suppl.	Papers submitted to the Joint IOC/WMO Seminar on Oceanographic Products and the IGOS Data Processing and Services System; Moscow, 2-6 April 1979.	E	37	IOC/FAO Workshop on the Improved Uses of Research Vessels; Lisbon, Portugal, 28 May-2 June 1984.	E	55		
18	IOC/UNESCO Workshop on Syllabus for Training Marine Technicians; Miami, U.S.A., 22-26 May 1978 (UNESCO reports in marine sciences, No. 4 published by the Division of Marine Sciences, UNESCO).	E (out of stock), F, S (out of stock), R	38	Papers submitted to the IOC/FAO Workshop on the Improved Uses of Research Vessels; Lisbon, 28 May-2 June 1984	E	56		
19	IOC Workshop on Marine Science Syllabus for Secondary Schools; Llantwit Major, Wales, U.K.,	E (out of stock), S, R, Ar	39	IOC/UNESCO Workshop on Regional Co-operation in Marine Science in the Central Indian Ocean and Adjacent Seas and Gulfs; Colombo, 8-13 July 1985.	E	57		

No.	Title	Languages	No.	Title	Languages	No.	Title	Languages
	Observation and Instrumentation. Submitted Papers; Novosibirsk, USSR, 4-5 August 1989.			Meeting for the Organization of an International Conference on Coastal Change; Bordeaux, France, 30 September-2 October 1992.		103	Liège, Belgium, 5-9 May 1994.	E
59	IOC-UNEP Regional Workshop to Review Priorities for Marine Pollution Monitoring Research, Control and Abatement in the Wider Caribbean; San José, Costa Rica, 24-30 August 1989.	E, F, S	83	IOC Workshop on Donor Collaboration in the Development of Marine Scientific Research Capabilities in the Western Indian Ocean Region; Brussels, Belgium, 12-13 October 1992.	E	104	IOC Workshop on GIS Applications in the Coastal Zone Management of Small Island Developing States; Barbados, 20-22 April 1994.	E
60	IOC Workshop to Define IOCARIBE-TRODERP proposals; Caracas, Venezuela, 12-16 September 1989.	E	84	Workshop on Atlantic Ocean Climate Variability; Moscow, Russian Federation, 13-17 July 1992	E	105	Workshop on Integrated Coastal Management; Dartmouth, Canada, 19-20 September 1994.	E
61	Second IOC Workshop on the Biological Effects of Pollutants; Bermuda, 10 September-2 October 1988.	E	85	IOC Workshop on Coastal Oceanography in Relation to Integrated Coastal Zone Management; Kona, Hawaii, 1-5 June 1992.	E	Suppl.	BORDOMER 95: Conference on Coastal Change; Bordeaux, France, 6-10 February 1995.	E
62	Second Workshop of Participants in the Joint FAO-IOC-WHO-IAEA-UNEP Project on Monitoring of Pollution in the Marine Environment of the West and Central African Region; Accra, Ghana, 13-17 June 1988.	E	86	International Workshop on the Black Sea; Varna, Bulgaria, 30 September - 4 October 1991	E	106	Conference on Coastal Change: Proceedings; Bordeaux, France, 6-10 February 1995	E
63	IOC/WESTPAC Workshop on Co-operative Study of the Continental Shelf Circulation in the Western Pacific; Bangkok, Thailand, 31 October-3 November 1989.	E	87	Taller de trabajo sobre efectos biológicos del fenómeno «El Niño» en ecosistemas costeros del Pacífico Sudeste; Santa Cruz, Galápagos, Ecuador, 5-14 de octubre de 1989.	S only (summary in E, F, S)	107	IOC/WESTPAC Workshop on the Paleographic Map; Bali, Indonesia, 20-21 October 1994.	E
64	Second IOC-FAO Workshop on Recruitment of Penaeid Prawns in the Indo-West Pacific Region (PREP); Phuket, Thailand, 25-31 September 1989.	E	88	IOC-CEC-ICSU-ICES Regional Workshop for Member States of Eastern and Northern Europe (GODAR Project); Obninsk, Russia, 17-20 May 1993.	E	108	IOC-ICSU-NIO-NOAA Regional Workshop for Member States of the Indian Ocean - GODAR-III; Dona Paula, Goa, India, 6-9 December 1994.	E
65	Second IOC Workshop on Sardine/Anchovy Recruitment Project (SARP) in the Southwest Atlantic; Montevideo, Uruguay, 21-23 August 1989.	E	89	IOC-CEC-ICES Regional Workshop for Member States of Eastern and Northern Europe (GODAR Project); Obninsk, Russia, 17-20 May 1993.	E	Suppl.	UNESCO-IHP-IOC-IAEA Workshop on Sea-Level Rise and the Multidisciplinary Studies of Environmental Processes in the Caspian Sea Region; Paris, France, 9-12 May 1995.	E
66	IOC ad hoc Expert Consultation on Sardine/Anchovy Recruitment Programme; La Jolla, California, U.S.A., 1989	E	90	IOC-ICSEM Workshop on Ocean Sciences in Non-Living Resources; Perpignan, France, 15-20 October 1990.	E	109	UNESCO-IHP-IOC-IAEA Workshop on Sea-Level Rise and the Multidisciplinary Studies of Environmental Processes in the Caspian Sea Region; Submitted Papers; Paris, France, 9-12 May 1995	E
67	Interdisciplinary Seminar on Research Problems in the IOCARIBE Region; Caracas, Venezuela, 28 November-1 December 1989.	E (out of stock)	91	IOC Seminar on Integrated Coastal Management; New Orleans, U.S.A., 17-18 July 1993.	E	110	First IOC-UNEP CEPPOP Symposium; San José, Costa Rica, 14-15 April 1993.	E
68	International Workshop on Marine Acoustics; Beijing, China, 26-30 March 1990.	E	92	Hydroblack'91 CTD Inter-calibration Workshop; Woods Hole, U.S.A., 1-10 December 1991.	E	Suppl.	IOC-ICSU-CEC regional Workshop for Member States of the Mediterranean - GODAR-IV (Global Oceanographic Data Archeology and Rescue Project) Foundation for International Studies, University of Malta, Valletta, Malta, 25-28 April 1995.	E
69	IOC-SCAR Workshop on Sea-Level Measurements in the Antarctica; Leningrad, USSR, 28-31 May 1990.	E	93	Réunion de travail IOCEA-OSNLR sur le Projet « Budgets sédimentaires le long de la côte occidentale d'Afrique » Abidjan, Côte d'Ivoire, 26-28 juin 1991.	E	111	Chapman Conference on the Circulation of the Intra-Americas Sea; La Parguera, Puerto Rico, 22-26 January 1995.	E
69 Suppl.	IOC-SCAR Workshop on Sea-Level Measurements in the Antarctica; Submitted Papers; Leningrad, USSR, 28-31 May 1990.	E	94	IOC-UNEP Workshop on Impacts of Sea-Level Rise due to Global Warming; Dhaka, Bangladesh, 16-19 November 1992.	E	112	IOC-IAEA-UNEP Group of Experts on Standards and Reference Materials (GESREM) Workshop; Miami, U.S.A., 7-8 December 1993.	E
70	IOC-SAREC-UNEP-FAO-IAEA-WHO Workshop on Regional Aspects of Marine Pollution; Mauritius, 29 October - 9 November 1990.	E	95	BMTIC-IOC-POLARMAR International Workshop on Training Requirements in the Field of Eutrophication in Semi-enclosed Seas and Harmful Algal Blooms, Bremerhaven, Germany, 29 September-3 October 1992.	E	113	IOC-IAEA-UNEP Group of Experts on Standards and Reference Materials (GESREM) Workshop; Miami, U.S.A., 7-8 December 1993.	E
71	IOC-FAO Workshop on the Identification of Penaeid Prawn Larvae and Postlarvae; Cleveland, Australia, 23-28 September 1990.	E	96	SAREC-IOC Workshop on Donor Collaboration in the Development of Marine Scientific Research Capabilities in the Western Indian Ocean Region; Brussels, Belgium, 23-25 November 1993.	E	114	IOC Regional Workshop on Marine Debris and Waste Management in the Gulf of Guinea; Lagos, Nigeria, 14-16 December 1994.	E
72	IOC/WESTPAC Scientific Steering Group Meeting on Co-Operative Study of the Continental Shelf Circulation in the Western Pacific; Kuala Lumpur, Malaysia, 9-11 October 1990.	E	97	IOC-UNEP-WMO-SAREC Planning Workshop on an Integrated Approach to Coastal Erosion, Sea Level Changes and their Impacts; Submitted Papers 1. Coastal Erosion; Zanzibar, United Republic of Tanzania, 17-21 January 1994.	E	115	International Workshop on Integrated Coastal Zone Management (ICZM) Karachi, Pakistan; 10-14 October 1994.	E
73	Expert Consultation for the IOC Programme on Coastal Ocean Advanced Science and Technology Study; Liège, Belgium, 11-13 May 1991.	E	Suppl.	IOC-UNEP-WMO-SAREC Planning Workshop on an Integrated Approach to Coastal Erosion, Sea Level Changes and their Impacts; Submitted Papers 2. Sea Level; Zanzibar, United Republic of Tanzania, 17-21 January 1994.	E	116	International Workshop on Integrated Coastal Zone Management (ICZM) Karachi, Pakistan; 10-14 October 1994.	E
74	IOC-UNEP Review Meeting on Oceanographic Processes of Transport and Distribution of Pollutants in the Sea; Zagreb, Yugoslavia, 15-18 May 1989.	E	96 Suppl.	IOC-UNEP-WMO-SAREC Planning Workshop on an Integrated Approach to Coastal Erosion, Sea Level Changes and their Impacts; Submitted Papers	E	117	IOC/GLOSS-IAPSO Workshop on Sea Level Variability and Southern Ocean Dynamics; Bordeaux, France, 31 January 1995	E
75	IOC-SCOR Workshop on Global Ocean Ecosystem Dynamics; Solomons, Maryland, U.S.A., 29 April-2 May 1991.	E	97	IOC-UNEP-WMO-SAREC Planning Workshop on an Integrated Approach to Coastal Erosion, Sea Level Changes and their Impacts; Submitted Papers	E	118	IOC-UNEP-NOAA-Sea Grant Fourth Caribbean Marine Debris Workshop; La Romana, Santo Domingo, 21-24 August 1995.	E
76	IOC/WESTPAC Scientific Symposium on Marine Science and Management of Marine Areas of the Western Pacific; Penang, Malaysia, 2-6 December 1991.	E	98	IOC Workshop on Small Island Oceanography in Relation to Sustainable Economic Development and Coastal Area Management of Small Island Developing States; Fort-de-France, Martinique, 8-10 November, 1993.	E	119	IOC-UNEP-NOAA-Sea Grant Fourth Caribbean Marine Debris Workshop; La Romana, Santo Domingo, 21-24 August 1995.	E
77	IOC-SAREC-KMFRI Regional Workshop on Causes and Consequences of Sea-Level Changes on the Western Indian Ocean Coasts and Islands; Mombasa, Kenya, 24-28 June 1991.	E	99	IOC Workshop on Small Island Oceanography in Relation to Sustainable Economic Development and Coastal Area Management of Small Island Developing States; Fort-de-France, Martinique, 8-10 November, 1993.	E	120	IOC Workshop on Ocean Colour Data Requirements and Utilization; Sydney B.C., Canada, 21-22 September 1995.	E
78	IOC-CEC-ICES-WMO-ICSU Ocean Climate Data Workshop Goddard Space Flight Center; Greenbelt, Maryland, U.S.A., 18-21 February 1992.	E	100	IOC-UNEP-WMO-SAREC Planning Workshop on an Integrated Approach to Coastal Erosion, Sea Level Changes and their Impacts; Submitted Papers	E	121	International Training Workshop on Integrated Coastal Management; Tampa, Florida, U.S.A., 15-17 July 1995.	E
79	IOC/WESTPAC Workshop on River Inputs of Nutrients to the Marine Environment in the WESTPAC Region; Penang, Malaysia, 26-29 November 1991.	E	101	IOC-UNEP-WMO-SAREC Planning Workshop on an Integrated Approach to Coastal Erosion, Sea Level Changes and their Impacts; Submitted Papers	E	122	Atelier régional IOC-CERESCOR sur la gestion intégrée des zones littorales (ICAM), Conakry, Guinée, 18-22 décembre 1995	F
80	IOC-SCOR Workshop on Programme Development for Harmful Algae Blooms; Newport, U.S.A., 2-3 November 1991.	E	102	IOC-UNEP-WMO-SAREC Planning Workshop on an Integrated Approach to Coastal Erosion, Sea Level Changes and their Impacts; Submitted Papers	E	123	IOC-EU-BSH-NOAA-(WDC-A) International Workshop on Oceanographic Biological and Chemical Data Management; Hamburg, Germany, 20-23 May 1996	E
81	Joint IAPSO-IOC Workshop on Sea Level Measurements and Quality Control; Paris, France, 12-13 October 1992.	E	103	IOC-SOA-NOAA Regional Workshop for Member States of the Western Pacific - GODAR-II (Global Oceanographic Data Archeology and Rescue Project); Tianjin, China, 8-11 March 1994.	E	124	Second IOC Regional Science Planning Workshop on Harmful Algal Blooms in South America; Mar del Plata, Argentina, 30 October-1 November 1995.	E, S
82	BORDOMER 92: International Convention on Rational Use of Coastal Zones. A Preparatory	E	104	IOC Regional Science Planning Workshop on Harmful Algal Blooms; Montevideo, Uruguay, 15-17 June 1994.	E	125	GLOBEC-IOC-SAHFOS-MBA Workshop on the Analysis of Time Series with Particular Reference to the Continuous Plankton Recorder Survey; Plymouth, U.K., 4-7 May 1993.	E
			105	First IOC Workshop on Coastal Ocean Advanced Science and Technology Study (COASTS);	E		Atelier sous-régional de la COI sur les ressources marines vivantes du Golfe de Guinée; Cotonou, Bénin, 1-4 juillet 1996.	E

No.	Title	Languages	No.	Title	Languages	No.	Title	Languages
126	IOC-UNEP-PERSGA-ACOPS-IUCN Workshop on Oceanographic Input to Integrated Coastal Zone Management in the Red Sea and Gulf of Aden. Jeddah, Saudi Arabia, 8 October 1995.	E	127	IOC Regional Workshop for Member States of the Caribbean and South America GODAR-V (Global Oceanographic Data Archeology and Rescue Project); Cartagena de Indias, Colombia, 8-11 October 1996.	E	128	Atelier IOC-Banque Mondiale-Sida/SAREC-ONE sur la Gestion Intégrée des Zones Côtières ; Nosy Bé, Madagascar, 14-18 octobre 1996.	E
129	Gas and Fluids in Marine Sediments, Amsterdam, the Netherlands; 27-29 January 1997.	E	130	Atelier régional de la COI sur l'océanographie côtière et la gestion de la zone côtière ;Moroni, RFI des Comores, 16-19 décembre 1996.	E	131	GOOS Coastal Module Planning Workshop; Miami, USA, 24-28 February 1997	E
132	Third IOC-FANSA Workshop; Punta-Arenas, Chile, 28-30 July 1997	S/E	133	Joint IOC-CIESM Training Workshop on Sea-level Observations and Analysis for the Countries of the Mediterranean and Black Seas; Birkenhead, U.K., 16-27 June 1997.	E	134	IOC/WESTPAC-CCOP Workshop on Paleogeographic Mapping (Holocene Optimum); Shanghai, China, 27-29 May 1997.	E
135	Regional Workshop on Integrated Coastal Zone Management; Chabahar, Iran; February 1996.	E	136	IOC Regional Workshop for Member States of Western Africa (GODAR-VI); Accra, Ghana, 22-25 April 1997.	E	137	GOOS Planning Workshop for Living Marine Resources, Dartmouth, USA; 1-5 March 1996.	E
138	Gestión de Sistemas Oceanográficos del Pacífico Oriental; Concepcion, Chile, 9-16 de abril de 1996.	S	139	Sistemas Oceanográficos del Atlántico Sudoccidental, Taller, TEMA;Furg, Rio Grande, Brasil, 3-11 de noviembre de 1997	S	140	IOC Workshop on GOOS Capacity Building for the Mediterranean Region; Valletta, Malta, 26-29 November 1997.	E
141	IOC/WESTPAC Workshop on Co-operative Study in the Gulf of Thailand: A Science Plan; Bangkok, Thailand, 25-28 February 1997.	E	142	Pelagic Biogeography ICoPB II. Proceedings of the 2nd International Conference. Final Report of SCOR/IOC Working Group 93; Noordwijkerhout, The Netherlands, 9-14 July 1995.	E	143	Geosphere-biosphere coupling: Carbonate Mud Mounds and Cold Water Reefs; Gent, Belgium, 7-11 February 1998.	E
144	IOC-SOPAC Workshop Report on Pacific Regional Global Ocean Observing Systems; Suva, Fiji, 13-17 February 1998.	E	145	IOC-Black Sea Regional Committee Workshop: 'Black Sea Fluxes' Istanbul, Turkey, 10-12 June 1997.	E	146	Taller Internacional sobre Formación de Capacidades para el Manejo de las Costas y los Océanos en el Gran Caribe. La Habana, - Cuba, 7-10 de Julio de 1998/ International Workshop on Management Capacity-Building for Coasts and Oceans in the Wider Caribbean, Havana, Cuba, 7-10 July 1998	S/E
147	IOC-SOA International Training Workshop on the Integration of Marine Sciences into the Process of Integrated Coastal Management, Dalian, China, 19-24 May 1997.	E	148	IOC/WESTPAC International Scientific Symposium - Role of Ocean Sciences for Sustainable Development Okinawa, Japan, 2-7 February 1998.	E	149	Workshops on Marine Debris & Waste Management in the Gulf of Guinea, 1995-97.	E
150	Primera Sesión del Grupo de Trabajo COI sobre Algas Nocivas en el Caribe y Regiones Adyacentes (IOCARIBE-ANCA)/First Meeting of the IOC Working Group on Harmful Algae in the Caribbean and Adjacent Region (IOCARIBE-ANCA), 29 June - 1 July 1998, Havana, Cuba.	S/E (electronic copy only)	151	Taller Pluridisciplinario TEMA sobre Redes del Gran Caribe en Gestión Integrada de Areas Costeras Cartagena de Indias, Colombia, 7-12 de septiembre de 1998.	S	152	Workshop on Data for Sustainable Integrated Coastal Management (SICOM) Maputo, Mozambique, 18-22 July 1998	E
153	IOC/WESTPAC-Sida (SAREC) Workshop on Atmospheric Inputs of Pollutants to the Marine Environment Qingdao, China, 24-26 June 1998	E	154	IOC-Sida-Flanders-SFRI Workshop on Ocean Data Management in the IOCINCWIO Region (ODINEA project) Capetown, South Africa, 30 November-11 December 1998.	E	155	Science of the Mediterranean Sea and its applications UNESCO, Paris 29-31 July 1997	E
156	IOC-LUC-KMFRI Workshop on RECOSCIX-WIO in the Year 2000 and Beyond, Mombasa, Kenya, 12-16 April 1999	E	157	'98 IOC-KMI International Workshop on Integrated Coastal Management (ICM), Seoul, Republic of Korea 16-18 April 1998	E	158	The IOCARIBE Users and the Global Ocean Observing System (GOOS) Capacity Building Workshop, San José, Costa Rica, 22-24 April 1999	E
159	Oceanic Fronts and Related Phenomena (Konstantin Fedorov Memorial Symposium) - Proceedings, Pushkin, Russian Federation, 18-22 May 1998	E	160	Under preparation	E	161	Under preparation	E
162	Workshop report on the Transports and Linkages of the Intra-american Sea (IAS), Cozumel, Mexico, 1-5 November 1997	E	163	Under preparation	E	164	IOC-Sida-Flanders-MCM Third Workshop on Ocean Data Management in the IOCINCWIO Region (ODINEA Project), Cape Town, South Africa, 29 November - 11 December 1999	E
165	An African Conference on Sustainable Integrated Management; Proceedings of the Workshops, An Integrated Approach, (PACSIKOM), Maputo, Mozambique, 18 -25 July 1998	E, F	166	IOC-SOA International Workshop on Coastal Megacities: Challenges of Growing Urbanization of the World's Coastal Areas; Hangzhou, P. R. China, 27 -30 September 1999	E	167	IOC-Flanders First ODINAFRICA-II Planning Workshop, Dakar, Senegal, 2-4 May 2000	E
168	Geological Processes on European Continental Margins: International Conference and Eight Post-cruise Meeting of the Training-Through-Research Programme, Granada, Spain, 31 January - 3 February 2000	E	169	International Conference on the International Oceanographic Data & Information Exchange in the Western Pacific (ODE-WESTPAC) 1999, ICWIP '99, Langkawi, Malaysia, 1-4 November 1999	E	170	IOCARIBE-GODAR-I Cartagena, Colombia, February 2000	under preparation
171	Ocean Circulation Science derived from the Atlantic, Indian and Arctic Sea Level Networks, Toulouse, France, 10-11 May 1999	E	172	The Benefits of the Implementation of the GOOS in the Mediterranean Region, Rabat, Morocco, 1-3 November 1999	E, F	173	IOC-SOPAC Regional Workshop on Coastal Global Ocean Observing System (GOOS) for the Pacific Region, Apia, Samoa, 16-17 August 2000	E
174	Geological Processes on Deep-water European Margins, Moscow-Mozhenka, 28 Jan.-2 Feb. 2001	E	175	MedGLOSS Workshop and Coordination Meeting for the Pilot Monitoring Network System of Systematic Sea Level Measurements in the Mediterranean and Black Seas, Haifa, Israel, 15-17 May 2000	E	176	(Under preparation)	E
177	(Under preparation)	E	178	(Under preparation)	E	179	(Under preparation)	E
180	Abstracts of Presentations at Workshops during the 7th session of the IOC Group of Experts on the Global Sea Level Observing System (GLOSS), Honolulu, USA, 23-27 April 2001	E	181	(Under preparation)	E	182	(Under preparation)	E
183	Geosphere/Biosphere/Hydrosphere Coupling Process, Fluid Escape Structures and Tectonics at Continental Margins and Ocean Ridges, International Conference & Tenth Post-cruise Meeting of the Training-through-Research	E	184	Programme, Aveiro, Portugal, 30 January-2 February 2002	E	185	(Under preparation)	E
186	(Under preparation)	E	186	(Under preparation)	E	187	(Under preparation)	E
188	Geological and Biological Processes at deep-sea European Margins and Oceanic Basins, Bologna, Italy, 2-6 February 2003	E	189	Proceedings of 'The Ocean Colour Data' Symposium, Brussels, Belgium, 25-27 November 2002	E	190	Workshop for the Formulation of a Draft Project on Integrated Coastal Management (ICM) in Latin America and the Caribbean (LAC), Cartagena, Colombia, 23-25 October 2003	E
191	Taller de Formulación de un Anteproyecto de Manejo Costero Integrado (MCI) en América Latina y el Caribe (ALC), Cartagena, Colombia, 23-25 de Octubre de 2003	E	192	First ODINCARSA Planning Workshop for Caribbean Islands, Christchurch, Barbados, 15-18 December 2003	E	193	North Atlantic and Labrador Sea Margin Architecture and Sedimentary Processes - International Conference and Twelfth Post-cruise Meeting of the Training-through-research Programme, Copenhagen, Denmark, 29-31 January 2004	E
194	Regional Workshop on Coral Reefs Monitoring and Management in the ROPME Sea Area, Iran I.R., 14-17 December 2003	E	195	Workshop on New Technical Developments in Sea and Land Level Observing Systems, Paris, France, 14-16 October 2003	E	196	IOC/ROPME Planning Meeting for the Ocean Data and Information Network for the Central Indian Ocean Region	E
197	Workshop on Indicators of Stress in the Marine Benthos, Torregrande-Oristano, Italy, 8-9 October 2004	E	198	International Coordination Meeting for the Development of a Tsunami Warning and Mitigation System for the Indian Ocean within a Global Framework, Paris, France, 3-8 March 2005	E	199	Geosphere-Biosphere Coupling Processes: The TTR Interdisciplinary Approach Towards Studies of the European and North African Margins; International Conference and Post-cruise Meeting of the Training-Through-Research Programme, Morocco, 2-5 February 2005	E
200	Second International Coordination Meeting for the Development of a Tsunami Warning and Mitigation System for the Indian Ocean, Grand Baie, Mauritius, 14-16 April 2005	E	201	International Conference for the Establishment of a Tsunami and Coastal Hazards Warning System for the Caribbean and Adjacent Regions, Mexico, 1-3 June 2005	E	202	Lagoons and Coastal Wetlands in the Global Change Context: Impacts and Management Issues - Proceedings of the International Conference, Venice, 26-28 April 2004 (ICAM Dossier N° 3)	E
203	Geological processes on deep-water European margins - International Conference and 15th Anniversary Post-cruise Meeting of the Training-Through-Research Programme, Moscow/Zvenigorod, Russian Federation, 29 January-4 February 2006	E	204	Proceedings of 'Ocean Biodiversity Informatics': an international conference on marine biodiversity data management Hamburg, Germany, 29 November-1 December 2004	E	205	IOC-Flanders Planning Workshop for the formulation of a regional Pilot Project on Integrated Coastal Area Management in Latin America, Cartagena de Indias, Colombia, 16-18 January 2007	E
206	Geo-marine Research along European Continental Margins, International Conference and Post-cruise Meeting of the Training-through-research Programme, Bremen, Germany, 29 January-1 February 2007	E	207	IODE/ICAM Workshop on the development of the Caribbean marine atlas (CMA), United Nations House, Bridgetown, Barbados, 8-10 October 2007	E	208	IODE/JCOMM Forum on Oceanographic Data Management and Exchange Standards, Ostend, Belgium, 21-25 January 2008	E
209	SCOR/IODE Workshop on Data Publishing, Ostend, Belgium, 17-18 June 2008	E						

No.	Title	Languages	No.	Title	Languages	No.	Title	Languages
208	JCOMM Technical Workshop on Wave Measurements from Buoys, New York, USA, 2–3 October 2008 (IOC-WMO publication)	(Under preparation)	233	2010 Meeting of the Joint IODE-JCOMM Steering Group on the Global Temperature-Salinity Profile Programme	E (electronic copy only)	263	International Coastal Atlas Network Workshop 6: Expanding Participation in Coastal Web Atlas Development and Use, 16–17 June 2013, University of Victoria, British Columbia, Canada	E (electronic copy only)
209	Collaboration between IOC and OBIS towards the Long-term Management Archival and Accessibility of Ocean Biogeographic Data, Ostend, Belgium, 24–26 November 2008	(Under preparation)	234	Ocean CO ₂ Atlas (SOCAT) Workshop, CSIRO Marine Laboratories, Hobart, Tasmania 16–18 June 2010	E (electronic copy only)	264	9th WESTPAC International Scientific Symposium, Research Directors' Forum: A Healthy and Safe Ocean for Prosperity in the Indo-Pacific region, Nha Trang, Viet Nam, 22 April 2014	E (electronic copy only)
210	Ocean Carbon Observations from Ships of Opportunity and Repeat Hydrographic Sections (IOCCP Reports, 1), Paris, France, 13–15 January 2003	E (electronic copy only)	235	The Caribbean Marine Atlas (CMA) Review and Planning Workshop and Saint Lucia National Coastal Atlas Stakeholder Event, Bay Gardens Inn, Rodney Bay, Saint Lucia, 2–6 August 2010	E (electronic copy only)	265	Electoral Group 1 Consultation on the Future of the IOC, Utrecht, The Netherlands, 26–27 May 2014	E (electronic copy only)
211	Ocean Surface pCO ₂ Data Integration and Database Development (IOCCP Reports, 2), Tsukuba, Japan, 14–17 January 2004	E (electronic copy only)	236	First Session of the IODE Steering Group for the IODE OceanDataPortal (SG-ODP-I), 20–22 September 2010, Ostend, Belgium	E (electronic copy only)	266	IOC-UNESCO-ISESCO workshop on Improving Tsunami Warning and Emergency Response in the North-Eastern Atlantic, Mediterranean and connected seas Rabat, 23–24 September 2014	A/E/F (electronic copy only)
212	International Ocean Carbon Stakeholders' Meeting, Paris, France, 6–7 December 2004	E (electronic copy only)	237	Ad hoc meeting of the IODE Steering Group for OBIS, Ostend, Belgium 18–19 November 2010	E (electronic copy only)	267	Proceedings of the First IOCAFRICA Ocean Forecasting workshop for the Western Indian Ocean region, Nairobi, Kenya, 11–15 August 2014	E (electronic copy only)
213	International Repeat Hydrography and Carbon Workshop (IOCCP Reports, 4), Shonan Village, Japan, 14–16 November 2005	E (electronic copy only)	238	Implementing Adaptation to Climate Change in Western and Eastern Africa, Nairobi, Kenya, 3–5 November 2010	E (electronic copy only)	268	Proceedings of the African Summer School on Application of Ocean Data and Modelling Products, Ghana, Kenya, April–September 2014	E (electronic copy only)
214	Initial Atlantic Ocean Carbon Synthesis Meeting (IOCCP Reports, 5), Laugavátn, Iceland, 28–30 June 2006	E (electronic copy only)	239	2nd Advisory Workshop on enhancing forecasting capabilities for North Indian Ocean Storm Surges, 11–15 February 2011, New Delhi, India	E (electronic copy only)	269	Forum on Sustained Ocean Observations and Services in IOC Group V (Africa and Arab countries)	E
215	Surface Ocean Variability and Vulnerability Workshop (IOCCP Reports, 7), Paris, France, 11–14 April 2007	E (electronic copy only)	240	Ocean Biogeographic Information System (OBIS) Infrastructure Meeting, INCOIS, Hyderabad, India, 2–4 March 2011	E (electronic copy only)	270	Second China-Africa Forum on Marine Science and Technology, 9–10 April 2015, Nairobi, Kenya	Under preparation
216	Surface Ocean CO ₂ Atlas Project (SOCAT) 2nd Technical Meeting Report (IOCCP Reports, 9), Paris, France, 16–17 June 2008	E (electronic copy only)	241	Best Practice on Tsunami and Coastal Hazards Community Preparedness and Readiness in Central America and the Caribbean, 11–13 August 2008, Panama City, Panama	E (electronic copy only)	271	WESTPAC Workshop on Research and Monitoring of the Ecological Impacts of Ocean Acidification on Coral Reef Ecosystems, Phuket, Thailand, 19–21 January 2015	E (electronic copy only)
217	Changing Times: An International Ocean Biogeochemical Time-Series Workshop (IOCCP Reports, 11), La Jolla, California, USA, 5–7 November 2008	E (electronic copy only)	242	Integrated Coastal Area Management (ICAM) Training Workshop for the English Speaking Caribbean States, 16–18 March 2011, Bridgetown, Barbados	E (electronic copy only)	272	Second IOCAFRICA Planning Meeting for the Second International Indian Ocean Expedition (IIOE-2), 6–8 October 2015, Catembe, Mozambique	E (electronic copy only)
218	Second Joint GOSUD/SAMOS Workshop, Seattle, Washington, USA, 10–12 June 2008	E (electronic copy only)	243	Cancelled		273	Cancelled	
219	International Conference on Marine Data management and Information Systems (IMDIS), Athens, Greece, 31 March–2 April 2008	E	244	SCOR/IODE/MBLWHOI Library Workshop on Data Publication, 4 th Session, British Oceanographic Data Centre, Liverpool, United Kingdom, 3–4 November 2011	E (electronic copy only)	274	First Session of the Advisory Group for the Ocean Data and Information Network for the WESTPAC Region (ODINWESTPAC), Tianjin, China, 27–28 January 2016	E
220	Geo-marine Research on the Mediterranean and European-Atlantic Margins. International Conference and TTR-17 Post-cruise Meeting of the Training-through-research Programme, Granada, Spain, 2–5 February 2009	E (electronic copy only)	245	Cancelled		275	Scientific meeting of experts for coordinated scenario analysis of future tsunami events and hazard mitigation schemes for the South China Sea region, Xiamen, China, 16–18 November 2015	E
221	Surface Ocean CO ₂ Atlas Project Pacific Regional Workshop, Tsukuba, Japan, 18–20 March, 2009 (IOCCP Report Number 12)	E (electronic copy only)	246	NEAMTIC/ICAM Workshop on Coastal Management Approaches for Sea-Level Related Hazards, Paris, UNESCO, 5–7 December 2011	E (electronic copy only)	276	Sources of Tsunamis in the Caribbean with Possibility to Impact the Southern Coast of the Dominican Republic, Santo Domingo, Dominican Republic, 6–7 May 2016	E & S
222	Surface Ocean CO ₂ Atlas Project Atlantic and Southern Oceans Regional Meeting, Norwich, UK, 25–26 June, 2009 (IOCCP Report Number 13)	E (electronic copy only)	247	Technical Workshop on the IODE OceanDataPortal, IOC Project Office for IODE, Ostend, Belgium, 27–29 February 2012	E (electronic copy only)	277	VI IOC Regional Science Planning Workshop on Harmful Algae in the Caribbean and Adjacent Regions, Santo Domingo, Dominican Republic, 26–30 October 2015 / COI – VI Taller Regional de Planificación Científica sobre Algas Nocivas en el Caribe y Regiones Adyacentes, Santo Domingo, República Dominicana, 26–30 Octubre 2015	E/S
223	Advisory Workshop on enhancing forecasting capabilities for North Indian Ocean Storm Surges, Indian Institute of Technology (IIT), New Delhi, India, 14–17 July 2009	E (electronic copy only)	248	Inter-sessional working group for updating the IOC Strategic Plan for Oceanographic Data and Information Exchange (2012–2015), Ostend, Belgium, 1–2 March 2012	E (electronic copy only)			
224	2009 International Nutrients Scale System (INSS) Workshop Report, Paris, France, 10–12 February 2009	E (electronic copy only)	249	Operational Oceanography of IOC (for Group II Member States), 20–22 March 2012 Paris, UNESCO (Advisory Workshop)	E (electronic copy only)	250	Advisory Workshop on The Future of IOC towards next ten years and its Implications for Member States, Varna, Bulgaria, 19 March 2012	E (electronic copy only)
225	Reunión subregional de planificación de ODINCARSA (Red de Datos e Información Oceanográficos para las Regiones del Caribe y América del Sur)/ ODINCARSA (Ocean Data and Information Network for the Caribbean and South America region) Latin America sub-regional Planning Meeting, Universidad Autónoma de Baja California (UABC), Ensenada (México), 7–10 December 2009, 2010	E/S (electronic copy only)	251	Second Technical Meeting of Ocean Biogeographic Information System (OBIS), Ostend, Belgium, 21–22 June 2012	E (electronic copy only)	251	Second Technical Meeting of Ocean Biogeographic Information System (OBIS), Ostend, Belgium, 21–22 June 2012	E (electronic copy only)
226	OBIS (Ocean Biogeographic Information System) Strategy and Work plan Meeting, IOC Project Office for IODE, Ostend, Belgium, 18–20 November 2009	E (electronic copy only)	252	SCOR/IODE/MBLWHOI Library Workshop on Data Publication, 5 th Session, Woods Hole Oceanographic Institution, Woods Hole, USA, 9–10 October 2012	E (electronic copy only)	252	SCOR/IODE/MBLWHOI Library Workshop on Data Publication, 5 th Session, Woods Hole Oceanographic Institution, Woods Hole, USA, 9–10 October 2012	E (electronic copy only)
227	ODINAFRICA-IV Project Steering Committee, First Session, Ostend, Belgium, 20–22 January 2010, 2010	E (electronic copy only)	253	Second IODE Workshop on Quality Control of Chemical and Biological Oceanographic Data Collections, 22–24 October 2012, IOC Project Office for IODE, Ostend, Belgium	E (electronic copy only)	253	Second IODE Workshop on Quality Control of Chemical and Biological Oceanographic Data Collections, 22–24 October 2012, IOC Project Office for IODE, Ostend, Belgium	E (electronic copy only)
228	First IODE Workshop on Quality Control of Chemical Oceanographic Data Collections, Ostend, Belgium, 8–11 February 2010, 2010	E (electronic copy only)	254	Consultation on Scientific and Technical Aspects of Sustained Ocean Observations and Services, 5 th March, 2013, Rio de Janeiro, Brazil	E (electronic copy only)	254	Consultation on Scientific and Technical Aspects of Sustained Ocean Observations and Services, 5 th March, 2013, Rio de Janeiro, Brazil	E (electronic copy only)
229	Surface Ocean CO ₂ Atlas Project Equatorial Pacific, North Pacific, and Indian Ocean Regional Workshop, Tokyo, Japan, 8–11 February 2010, 2010 (IOCCP Report Number 18)	E (electronic copy only)	255	Earthquake and tsunami hazard in Northern Haiti: Historical events and potential sources (Meeting of experts)	E (electronic copy only)	255	Earthquake and tsunami hazard in Northern Haiti: Historical events and potential sources (Meeting of experts)	E (electronic copy only)
230	SCOR/IODE/MBLWHOI Library Workshop on Data Publication, Paris, France, 2 April 2010	E (electronic copy only)	256	Sexto Taller Regional de Planificación Científica sobre Floraciones de Algas Nocivas en Sudamérica, Guayaquil, Ecuador, 22–24 Octubre 2003	S (electronic copy only)	256	Sexto Taller Regional de Planificación Científica sobre Floraciones de Algas Nocivas en Sudamérica, Guayaquil, Ecuador, 22–24 Octubre 2003	S (electronic copy only)
231	First ODINAFRICA Coastal and Marine Atlases Planning Meeting, Ostend, Belgium, 12–14 October 2009	E (electronic copy only)	257	(Under preparation)		257	(Under preparation)	
232	Eleventh International Workshop on Wave Hindcasting and Forecasting and Second Coastal Hazard Symposium, Halifax, Canada, 18–23 October 2009	E (electronic copy only)	258	(Under preparation)		258	(Under preparation)	
			259	Noveno Taller Regional-COI de Planificación Científica sobre Florecimientos de Algas Nocivas en Sudamérica, 11–13 enero 2011, Puerto Varas, Chile	S (electronic copy only) (Summary in E)	259	Noveno Taller Regional-COI de Planificación Científica sobre Florecimientos de Algas Nocivas en Sudamérica, 11–13 enero 2011, Puerto Varas, Chile	S (electronic copy only) (Summary in E)
			260	Caribbean Marine Atlas Review and Planning Meeting, Miami, USA, 10–13 December 2013	E (electronic copy only)	260	Caribbean Marine Atlas Review and Planning Meeting, Miami, USA, 10–13 December 2013	E (electronic copy only)
			261	Indo-Pacific Ocean Forum on "Charting the Future of Sustained Ocean Observations and Services", Bangkok, Thailand, 25–28 Nov. 2013	E (electronic copy only)	261	Indo-Pacific Ocean Forum on "Charting the Future of Sustained Ocean Observations and Services", Bangkok, Thailand, 25–28 Nov. 2013	E (electronic copy only)
			262	First Planning Workshop For The Ocean Data And Information Network For The Westpac Region (ODINWESTPAC), Tianjin, China, 4–7 March 2014		262	First Planning Workshop For The Ocean Data And Information Network For The Westpac Region (ODINWESTPAC), Tianjin, China, 4–7 March 2014	