1

|  |  |
| --- | --- |
| Restricted distribution  notext-bw | **IOC-XXIX/3s Pt.3**  Paris, 12 July 2017  Original: English |

**INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION**

**(of UNESCO)**

**Twenty-Ninth Session of the Assembly**

UNESCO, Paris, 21-29 June 2017

**SUMMARY REPORT**

**Part 3**

(Agenda items 3.4.1, 3.4.2, 3.4.3, 3.4.4, 3.4.6,  
7.1.1, 7.1.2, 7.1.3, 7.1.4, 7.2, 9.3 & 10.1)

**3. IOC MATTERS AND REPORTS**

3.4 REPORTS BY THE CHAIRS OF THE IOC SUB-COMMISSIONS AND REGIONAL COMMITTES

**3.4.1 IOC Sub-Commission for the Western Pacific:  
 11th Session of WESTPAC, 21-23 April 2017, Qingdao, China**

1. Dr Vo Si Tuan, Chair of WESTPAC reported on the key accomplishments over the last intersessional period, and major outcomes of the 11th intergovernmental session of WESTPAC (WESTPAC-XI, 21–23 April 2017, Qingdao, China).
2. He summarized that around 2,200 marine scientists, governmental officials and resource managers directly took part in a variety of WESTPAC activities over the last intersessional period, through its triennial WESTPAC International Marine Science Conference, two regional observing systems: Northeast Asian-Global Ocean Observing System (NEAR-GOOS) and Southeast Asian-Global Ocean Observing System (SEAGOOS); fourteen marine scientific projects/programmes/working groups, and Regional Training and Research Centres (RTRCs).
3. He informed the Assembly that the IOC visibility and leadership have been strengthened and enhanced in the region via the vibrant WESTPAC. WESTPAC demonstrates the strategic role between IOC global objectives and national programmes and actions, enabling regional needs and priorities to be reflected in development of global agendas, and adapting global objectives to meet regional and national needs and priorities.
4. In particular, he highlighted the WESTPAC International Scientific Conference (Formerly known as “WESTPAC International Symposium”) has evolved into the largest gathering for marine scientists in the region. The 10th WESTPAC International Scientific Conference (17–20 April 2017, Qingdao, China) attracted immense interest with the participation of over 700 scientists, governmental officials and resource managers from 21 countries and many international programmes/organizations within and outside the region.
5. He highly appreciated the inauguration of the IOC Regional Training and Research Centre on Marine Biodiversity and Ecosystem Health (RTRC-MarBEST) at the Indonesian Institute of Sciences, Indonesia, and the effective operation of the IOC Regional Training and Research Centre on Ocean Dynamics and Climate (RTRC-ODC) at the First Institute of Oceanography, State Oceanographic Administration of China. He reported that two voluntary commitments were made by the Sub-Commission to the UN Ocean Conference, geared at driving implementation of Sustainable Development Goal 14 and its associated targets.
6. Dr Vo briefed that the Sub-Commission, at WESTPAC-XI, emphasized the pivotal role of WESTPAC in achieving IOC’s roadmap in the region, which includes: (i) translating sustainable development policies into concrete action at national level; (ii) implementing sub-regional and regional programmes relevant to sustainable development; (iii) identifying gaps in ocean research capacities for sustainable development of marine resources; (iv) facilitating capacity building, especially through the Regional Research and Training Centres; and (v) sharing best practices and lessons learned to address regional needs.
7. In terms of the SDG 14, the Sub-Commission further expressed its commitments to assisting Member States in the implementation of SDG 14, which will be fulfilled through: (i) strengthening regional collaborative research, especially on marine pollution and ocean acidification, and marine biodiversity; (ii) disseminating scientific knowledge and facilitating information sharing and science-policy interface; (iii) transfer of marine technology and capacity development; (iv) provision of technical assistance to address specific needs of its Member States; and (v) forging, if necessary, a regional platform with other partners for countries to share their progress, lessons learned, technology innovation and best practices in SDG 14 implementation.
8. With respect to the implementation of IOC Capacity Development Strategy, 2015-2021, the Sub-Commission will continuously accord priority to capacity development, and employ inclusive, adaptive and self-driven approaches to capacity development with guiding principles to focus on user needs at the regional and national levels, to foster North-South and South-South collaboration, and to link trainings to the attainment of research goals addressing critical development challenges in the region. The Sub-Commission decided to intensify its efforts in: (i) development of “IOC Regional Network of Training and Research Centres on Marine Science” through the establishment of IOC Regional Training and Research Centres (RTRCs) in national marine research institutes and/or universities; (ii) inclusion of capacity development into WESTPAC research programme and conduct of tailored national and regional trainings or training workshops in Member States on a rotation basis; (iii) “Training-Through-Research” through the engagement of early career scientists into WESTPAC research programmes; and (iv) establishment of “WESTPAC Best Young Scientist Award” and “WESTPAC Young Scientist Travel Grant” to nurture young science leaders and facilitate international exposure of young scientists.
9. He informed that WESTPAC decided to establish: (i) two new projects respectively on marine micro plastics and harmful jellyfish; (ii) two working groups on Ocean Oxygen Network (WESTPAC O2NE), and Energy and Materials Exchange Between Land and Open Ocean; and (iii) an open-ended Intersessional Working Group on the second Cooperative Study of the Kuroshio and Adjacent Regions (CSK-2).
10. Dr Vo expressed his great appreciation to the Government of Indonesia for its kind offer to host the 11th WESTPAC International Marine Science Conference in 2020 and 13th WESTPAC Session in 2021, and the Government of Philippines to host the 12th WESTPAC Session in 2019, and the Government of Bangladesh to host WESTPAC future sessions or other events.
11. He recognized that WESTPAC has been prospering due to the ever-increasing ownership of Member States and the highly dedicated and professional staff at the WESTPAC Office. Notwithstanding, the Sub-Commission expressed its concern over the incompatibility of the current size of the WESTPAC Office and the scope of IOC activities in the region, which results in the increasing difficulty to maintain IOC’s visibility and leadership in the region. Therefore, the Sub-Commission strongly recommended that the WESTPAC office be reinforced.
12. Several Member States made commitments of support for WESTPAC, which, inter alia, include: Thailand will continue hosting and supporting the operation of the WESTPAC Office; Indonesia will provide quality regular trainings at the newly established RTRC-MarBEST and host the 11th WESTPAC International Marine Science Conference in 2020; the Republic of Korea will intensify its efforts in marine biodiversity conservation; China will increase its voluntary contribution to WESTPAC, in addition to its provision of regular trainings at RTRC-ODC and other training facilities, conduct of joint research and hosting of WESTPAC workshops; Japan will continue to make financial contributions to WESTPAC in support of its programme implementation.
13. The representatives of 10 Member States took the floor. The following Member States chose to provide records of their plenary intervention on this agenda item for the informational annex to the meeting report: Bangladesh, China, Indonesia, Japan, Malaysia, Republic of Korea and the Russian Federation.
14. The Assembly adopted Decision IOC-XXIX/3.4.1.

**IOC Sub-Commission for the Western Pacific (WESTPAC)**

The Assembly,

Having considered the executive summary report of the 11th Session of the IOC Sub-Commission for the Western Pacific, Qingdao, China, 21–23 April 2017 (IOC/WESTPAC-XI/3s),

Expresses its deep appreciation to:

* the Government of Thailand for hosting and supporting the WESTPAC Office;
* the Government of China for hosting and co-organizing the 10th WESTPAC International Scientific Conference (17–20 April 2017, Qingdao, China) and 11th WESTPAC Intergovernmental Session (21–23 April 2017, Qingdao, China);
* the Government of Indonesia, through its Indonesian Institute of Sciences, for hosting the Regional Training and Research Center on Marine Biodiversity and Ecosystem Health, and the Government of China, through its State Oceanic Administration and First Institute of Oceanography for hosting the Regional Training and Research Center on Ocean Dynamics and Climate with annual trainings having been provided since 2011; and
* all other WESTPAC Member States for their financial and in-kind support provided to WESTPAC’s a wide range of activities;

Taking into account the pivotal role of the WESTPAC Office in IOC’s achievements in the region over the past decade, with concerns over the increasing difficulty in maintaining IOC’s visibility and leadership in the region as a result of the incompatibility of the current size of the WESTPAC Office and the scope of IOC activities in the region,

Requests the IOC Executive Secretary to reinforce the Sub-Commissions’ Secretariat, and follow up on the IOC Decision IOC-XXVIII/3.3.1 which was adopted at the 28th Session of the IOC Assembly (18–25 June 2015, Paris, France);

Accepts the report of WESTPAC-XI and the recommendations therein, including the workplan of the Sub-Commission for May 2017–May 2019;

Agrees that the regular budget for these activities will be identified as part of the overall IOC Programme and Budget Resolution XXIX-2.

**3.4.2 IOC Sub-Commission for the Caribbean and Adjacent Regions:  
14th Session of the IOCARIBE, 26-28 April 2017, Cartagenas de Indias, Colombia**

1. The IOCARIBE Chair, Mr Francisco Brizuela (Mexico) reported on the progress achieved in IOCARIBE focal programmes in 2016–2017: IODE and related Ocean Data and Information Network for the IOCARIBE and South America Regions (ODINCARSA); the Caribbean Marine Atlas Phase 2 (CMA2); IOCARIBE-GOOS; HAB-ANCA; ICAM; IBCCA; “CLME+: Catalyzing 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;” development of the draft IOCARIBE Medium-Term Strategic Science Plan (2017–2026) (IOC/SC-IOCARIBE-XIV/6 Prov.); and Capacity-Development implementation plan, including the work and activities carried out in the Ocean Teacher Global Academy Centre Invemar (Colombia).
2. He specifically reported on: (i) the implementation of the CLME+ Project; (ii) the Caribbean Marine Atlas phase 2 (CMA2); (iii) Tsunami and Other Coastal Hazards Early Warning System, and recognized their contribution in increasing Member States capacities to ecosystem management and disaster risk reduction. He also noted that the proposed preliminary outline and concept paper for the CLME+ reporting mechanism as a basis for the development of the “State of the Marine Ecosystems and associated Economies in the Caribbean and North Brazil Shelf Large Marine Ecosystems” was endorsed by IOCARIBE within the context of the IOCARIBE Medium-Term Strategic Science Plan (2017–2026) and its Main Lines of Action: (i) Oceans and Climate; (ii) Ocean Science; (iii) technology and sustainable use of Coastal and Ocean Resources with special emphasis on Large Marine Ecosystems and Integrated Coastal Area Management; and (iv) Extreme Natural Hazards,
3. Mr Brizuela informed the Assembly about the current and new IOCARIBE projects: GEF-funded Integrating Water, Land and Ecosystem Management in Caribbean Small Island Developing States (GEF IWEco) Project led by UNEP. He noted the efforts made to obtain funding for the “Partnership for Sustainable Management of Ocean and Coasts in Latin America (Central and South America)” project. IOCARIBE-GOOS assets build upon Member States’ regional priorities and partnering with the substantial existing observing programme of the Tsunami and Other Coastal Hazards Warning System for the Caribbean and Adjacent Regions-CARIBE-EWS. Pilot projects may include working with UNDP, GEO, and other partners to determine how IOCARIBE-GOOS can provide support to the proposed UNDP 4M—Multipurpose Marine Monitoring Mechanism Project. Also he noted IOCARIBE support to the “CIFDP-C Coastal Inundation Forecasting Demonstration Project in the Caribbean,” developed by WMO and IOC within the JCOMM framework, with a pilot in Hispaniola Island (Dominican Republic and Haiti) to be completed in 2018.
4. Mr Brizuela referred to HAB-ANCA work and main recommendations to: (i) enhance regional participation in, and the implementation of, the IOC Ciguatera Strategy; (ii) foster regional collaboration by financial or in-kind contributions to ANCA to carry out its Action Plan, 2017–2019, including preparation of a project focused on Ciguatera-causing organisms, toxins, contaminated seafood and the epidemiology; and the work developed with regional organizations and IAEA. He stressed the need to continue promoting the inter-regional work on ciguatera, especially, with IOC WESTPAC. Mr Brizuela referred to the design and development of a Sargassum tracking and forecasting system including a Pilot Project / prototype to test the concept. The system should provide the region with an important tool to minimize the impact of Sargassum rafts on its coastlines by allowing for the mobilization of resources to intercept/manage the seaweed, as well as promoting best practices for managing/utilizing any Sargassum which is collected. IOC Global programmes including IODE, HAB, GOOS, OBIS and regional presence such as IOCARIBE-GOOS, CMA, ANCA, should contribute to and guide the development and operation of the tracking and forecasting system.
5. Mr Brizuela highlighted the importance of the Training Programme “Promote and Facilitate the Conduct of Marine Scientific Research (MSR) under the United Nations Convention on the Law of the Sea (UNCLOS),” developed in partnership with DOALOS, and the outcome of the Workshop carried out in St. Lucia, on 2–5 May 2017, with the support of the Republic of Korea.
6. Noting IOCARIBE Member States’ concern in understanding the extent of the ocean acidification (OA) impact on marine ecosystems and the need for soundly-based observational data and ecosystem response, the Sub-commission established an open-ended working group. The response should include enhancing monitoring and data sharing regionally and globally to improve modelling of ocean acidification impacts, and communicating this information through an outreach strategy with the management community and public, while strengthening the links and actively participating in the Latin American Ocean Acidification Network (LAOCA) (<http://laoca.cl/es/>), a regional network of the Global Ocean Acidification Observation Network (GOA-ON).
7. The Sub-commission decided to remain actively engaged in and promote IOCARIBE Member States participation in the UN World Ocean Assessment.
8. The IOCARIBE Chairperson informed on the main outcomes of the IOCARIBE 35th Anniversary—International Marine Science Conference “Development & Evolution of Marine Sciences over three Decades and the contribution of IOC-IOCARIBE for the Foreseen Future”—held in Cartagena, Colombia on 24–25 April 2017.
9. Referring to the IOCARIBE 35th Anniversary, Mr Brizuela thanked the Governments of Colombia, Flanders (Kingdom of Belgium), Sweden, United States of America, Barbados, Canada, the Republic of Korea, Mexico, and Venezuela for their support to IOCARIBE for more than three decades.
10. The Assembly noted the successful development of the IOCARIBE programmes and projects, and Member States reiterated their commitment for their implementation, while agreeing to actively participate in IOCARIBE projects and programmes.
11. The Assembly recognised the efforts carried out by IOCARIBE in capacity development and institutional strengthening, and noted the critical importance of building national capacities in ocean sciences and disaster risk reduction. The Assembly noted the progress achieved in CLME+ project and recognised its contribution in increasing Member States’ capacities to ecosystem management.
12. Member States stressed the need to continue strengthening cooperation and collaboration with scientists and experts in the Region.
13. The Assembly highlighted the importance of the Training Programme “Promote and Facilitate the Conduct of MSR under UNCLOS” for increasing Member States capacity on ocean sciences and improving access to new technologies.
14. Member States welcomed the reinforcement of the IOCARIBE Sub-commission by the restoration of the current IOCARIBE Secretary´s full time position in Cartagena.
15. The Assembly expressed appreciation to the Government of Colombia for continued hosting of the secretariat and for its support by seconding experts working as IOCARIBE staff.
16. The representatives of six Member States took the floor. The following Member States chose to provide records of their plenary intervention on this agenda item for the informational annex to the meeting report: Argentina and United Kingdom.
17. The Assembly adopted Decision IOC-XXIX/3.4.2.

**IOC Sub-Commission for the Caribbean and Adjacent Region (IOCARIBE)**

The Assembly,

Having considered the executive summary report of the 14th Session of the IOC Sub-Commission for the Caribbean and Adjacent Region (IOCARIBE), Cartagena de Indias, 26–28 April 2017 (IOC/SC-IOCARIBE-XIV/3s),

Accepts the report of IOCARIBE-XIV and the recommendations therein;

Expresses appreciation to:

* the Government of Colombia for continued hosting of the Secretariat and for its support by seconding experts working as IOCARIBE staff;
* the Government of Flanders (Kingdom of Belgium) for their continuous support to IOCARIBE programmes;
* the Republic of Korea for their support to the UNCLOS MSR Training Programme; and
* the Government of Mexico for their support to IOCARIBE-XIV session;

Agrees that the regular budget for these activities will be identified as part of the overall IOC Programme and Budget Resolution XXIX-2.

**3.4.3 IOC Sub-Commission for Africa and the Adjacent Island States:  
 4th Session of IOCAFRICA, 6-8 March 2017, Alexandria, Egypt**

1. The Chairperson of the IOC Sub-Commission for Africa and the Adjacent Island States (IOCAFRICA), Prof. Mohamed Said (Egypt), reported on the major outcomes of the 4th Session of the Sub-Commission (6–8 March 2017, Alexandria, Egypt). He highlighted the progress made in the implementation of the IOCAFRICA work programme, in particular in capacity development, ocean observations and monitoring, ocean data and information management, ocean sciences and assessment, and public awareness on ocean issues. Prof. Said noted that the partnerships, the Sub-Commission had established with other organizations and projects, including WIOMSA, the FAO/EAFNANSEN project, the International Atomic Energy Agency, the IGAD Climate Prediction and Application Centre in particular, have enabled it to implement a wide range of activities.
2. Prof. Said pointed out that the Sub-Commission had established four working groups, each headed by an IOCAFRICA Officer, to support the IOCAFRICA Secretariat and assist in the development and coordination of programmes on: (i) Ocean Observations and Monitoring; (ii) Ocean Data and Information Management); (iii) Ocean Sciences and Assessments; and (iv) Capacity Development and Public Awareness in Marine Science and Technology.
3. Prof. Said informed the session that the Sub-Commission plans to organize a Pan-African Conference on Marine Science and Technology in October 2018. This will provide a forum to review progress in the development of ocean sciences in the region and look at how the ocean science research and education can assist the region in achieving the development goals set out in the African Union’s Agenda 2063 and the UN 2030 Agenda for Sustainable Development.
4. The Assembly commended the considerable progress that has been made in implementation of the IOCAFRICA work plans, and noted the challenges and limitations faced by the IOCAFRICA Secretariat, including staffing and resources.
5. The Assembly also noted the relevant national and regional initiatives that were highlighted by Member States, and requested the IOCAFRICA Secretariat to facilitate the development of partnerships and collaboration between such initiatives in order to ensure that expertise and facilities available in the region can be utilised optimally in support of IOCAFRICA programmes.
6. The Assembly welcomed the offer of Egypt to host a Pan-African Conference on Marine Science and Technology in 2018 and noted that such a conference will boost the development of marine sciences in the region.
7. The representatives of 10 Member States took the floor. The following Member States chose to provide records of their plenary intervention on this agenda item for the informational annex to the meeting report: Egypt and South Africa.
8. The Assembly adopted Decision IOC-XXIX/3.4.3.

**IOC Sub-Commission for Africa and the Adjacent Island States (IOCAFRICA)**

The Assembly,

Having considered the executive summary report of the 4th Session of the IOC Sub-Commission for Africa and the Adjacent Island States, Alexandria, Egypt, 6–8 March 2017,

Noting the progress made in the implementation of the IOCAFRICA work programme 2015–2017, especially in capacity development, and the challenges faced by the Sub-Commission,

Acknowledges the support provided by various Member States for the development and implementation of the programmes of the Sub-Commission, and urges Member States from the region and beyond to consider seconding of staff and providing financial and/or in-kind support to enable IOCAFRICA achieve its mandate, including the organization of the Pan African Conference on Marine Science and Technology in 2018;

Accepts the report of IOCAFRICA-IV and the recommendations therein;

Agrees that the regular budget for these activities will be identified as part of the overall IOC Programme and Budget Resolution XXIX-2.

**3.4.4 IOC Regional Committee for the Central Indian Ocean:  
 6th Session of IOCINDIO, 24-25 May 2017, Kuwait City, Kuwait**

1. Dr M. A. Atmanand, Chair of the IOC Regional Committee for the Central Indian Ocean (IOCINDIO), introduced this agenda item. He recalled that; (i) IOCINDIO endorsed the Executive Summary Report and Recommendations of the Fifth Session of the IOC Regional Committee for Central Indian Ocean (IOCINDIO-V) which was successfully organised with the support of the Government of India in Chennai, India, 25–27 April 2016; and (ii) the IOC Executive Council at its 49th Session (Paris, France, 7–10 June 2016) adopted Resolutions EC-XLIX.1 and EC-XLIX.2, which requested the Executive Secretary to develop a project proposal to be funded by extrabudgetary resources in 2016–2017 (Complementary Additional Programme, CAP) in support of IOCINDIO based on national and regional needs and priorities. These Resolutions also called for the organisation of the IOCINDIO Strategic Revitalisation Scoping Workshop to be followed by the Sixth Session of IOCINDIO in 2017 prior to the 29th Session of the IOC Assembly. The IOC Secretariat in close collaboration with the IOCINDIO Officers and experts developed the IOCINDIO Complementary Additional Project proposal entitled “Re-activation of the IOC Regional Committee for the Central Indian Ocean (IOCINDIO) fostering national and regional capacity building towards the implementation of the 2030 Sustainable Development Goals on Climate Change (SDG 13) and Ocean (SDG 14) in the region”.
2. Dr Atmanand emphasized that the Indian Ocean is vital not only for the Member States in the region, but also for the global community due to the global impacts of the regional ocean phenomena occurring in the basin. IOCINDIO, as an IOC regional intergovernmental body, involves several countries at various stages of development. The diversity in development in the region should be seen as a useful asset and a strength, rather than a weakness. For instance, the advances in ocean science and technology in countries including India is of added importance for cooperation in the region. Income generated from the exploration and exploitation of oil and gas in the Gulf countries provide an excellent justification for the needed investments in development of coastal and offshore engineering and technology for monitoring managing oil spills in the inner Regional Organization for the Protection of the Marine Environment (ROPME) Sea Area.
3. Within the framework of the IOCINDIO project proposal added to the CAP, the Member States of IOCINDIO committed themselves to the reactivation of the Committee. The Government of Kuwait through the Kuwait Institute for Scientific Research (KISR), hosted IOCINDIO-VI on 24–25 May 2017 and the preceding IOCINDIO Revitalisation Scoping Workshop (22–23 May 2017), in Kuwait City, Kuwait. The Chairperson expressed the deep gratitude of the Committee to the Government of Kuwait for supporting all costs of the meetings as detailed in the IOC invitation Letter (IOC Circular Letter 2669 dated 25 April 2017). The total budget of the two meetings amounted to US$88,505 supported by Kuwait involving the Kuwait Institute for Scientific Research (KISR), Kuwait Foundation for the Advancement of Sciences (KFAS) and ROPME. The Government of India also provided a financial contribution amounting to US$5,000 to support the meetings and subsequent follow-up activities. The IOC Secretariat made available US$30,000, as a result of the contributions from India and Kuwait.
4. In conclusion, the IOCINDIO Chair presented the IOCINDIO-VI Recommendations together with the project proposals elaborated and adopted at IOCINDIO-VI. He underscored that full implementation of these proposals require the participation and contribution of all IOCINDIO Member States with the support from IOC Member States and partners. He informed the Assembly that IOCINDIO Member States are invited to provide additional topics for project development based on their national needs and priorities. A list and description of the preliminary project proposals as well as the recommendations are presented in the Summary Report (IOCINDIO-VI/3s) for consideration by the Assembly. He invited the Assembly to provide further advice and guidance on funding opportunities for the full implementation of IOCINDIO-VI project proposals that will lead towards the full reactivation of the Committee.
5. The Assembly commended the Officers and the Secretariat for the rapid progress of IOCINDIO following the successful organisation of IOCINDIO-V. Several Member States renewed their support to the full reactivation and functioning of the Committee. The Assembly called for synergy and exchange of best practices with ongoing initiatives, including the IIOE-2, the African Decade of Ocean, as well as closer cooperation with WESTPAC and IOCAFRICA.
6. India as a contributor to the organisation of IOCINDIO-V and sponsor for the organisation of IOCINDIO-VI, renewed its commitment to the Committee. Kuwait, as the main sponsor of IOCINDIO-VI, also renewed its commitment for supporting the implementation of initial IOCINDIO work plans.
7. The Assembly favourably noted the report of IOCINDIO-VI and would consider these proposals to be included in the Complementary Additional Proposals for the ongoing biennium as well as for the upcoming one. The Assembly will also consider providing regular programme budget and/or extra budgetary resources for the implementation of the project proposals.
8. The representatives of 8 Member States took the floor. The following Member States chose to provide records of their plenary intervention on this agenda item for the informational annex to the meeting report: Bangladesh, Indonesia, Malaysia, Oman, Tanzania and United Kingdom.
9. The Assembly adopted Decision IOC-XXIX/3.4.4.

**IOC Regional Committee for the Central Indian Ocean (IOCINDIO)**

The Assembly,

Having considered the executive summary report of the 6th Session of the IOC Regional Committee for the Central Indian Ocean, Kuwait City, Kuwait, 24–25 May 2017,

Noting with appreciation the progress achieved since the 5th Session of the Committee in Chennai, India, April 2017; leading to the successful organisation of IOCINDIO-VI, in Kuwait City, Kuwait,

Congratulates the IOCINDIO Officers and the Secretariat for keeping the momentum for a proactive reactivation of the Committee,

Accepts the report of IOCINDIO-VI and the recommendations therein;

Requests the IOC Executive Secretary to:

* continue providing staff time for the coordination, development and implementation of the resulting proposals and activities recommended at the IOCINDIO-VI session;
* support the IOCINDIO Officers in their efforts for mobilising bilateral and multilateral partnerships for financial and in-kind resources, notably from the Indian Ocean Rim Association, The World Bank, the Global Environment Facility, the European Union/European Commission, the United Nations Environmental Funds including the Adaptation Funds, the Green Climate Funds, etc.;

Agrees that the regular budget for these activities will be identified as part of the overall IOC Programme and Budget Resolution XXIX-2.

*[Item 3.4.5 to be found in Part 4]*

**3.4.6 Proposal to Establish the International Training Centre on Operational Oceanography hosted by the Indian National Centre for Ocean Information Services (INCOIS) of Ministry of Earth Sciences, as a UNESCO Category 2 Centre**

1. Mr Julian Barbière, Head of Marine Policy and Regional Coordination, introduced this item by informing the Assembly of the proposal submitted by India for the establishment of a Category 2 UNESCO International Training Centre on Operational Oceanography, to be hosted by the Indian Centre for Ocean Information (INCOIS) as presented in document IOC-XXIX/2 Annex 7.
2. He described the potential role of the Centre as a mechanism for providing advanced training in operational oceanography and data management, in mitigation of marine hazards and capacity development, to the countries of the Indian Ocean Rim, Africa and Small Island States of the Indian Ocean. He further emphasized that the proposed Centre could support UNESCO and IOC’s objectives as they relate to global priority Africa, the implementation of 2030 Agenda and IIOE-2.
3. Mr Barbière gave a brief overview of the Integrated Comprehensive Strategy for Category 2 Centres under the auspices of UNESCO as presented in UNESCO document 37 C/18 Part 1 and its attachments and pointed out that in compliance with this strategy, a feasibility study of the proposal has been carried out, and a fact-finding mission was organized from April 29 to 2 May 2017 financially fully covered by India. The report of the mission is available as an Addendum to document IOC-XXIX/2 Annex 7.
4. The mission concluded that the objectives, functions and facilities of INCOIS, as a host institution of a future Training Centre, fully meet the requirements of a Category 2 Centre for Operational Oceanography and its mandate is highly relevant to UNESCO and IOC strategic objectives and priorities.
5. He specially emphasized that using the IOC Capacity Development Strategy, 2015–2021, the Centre may become an important and valuable instrument to provide substantial inputs to UN SDGs and adequately address the decisions of UN Ocean Conference in areas of managing and protecting marine environment.
6. During the mission, the draft Agreement between the Government of India and UNESCO was discussed and developed based on the Model Agreement presented in Attachment 2 of document 37 C/18 Part 1. In accordance with this Agreement, the Government of India expressed readiness to provide necessary financial, administrative and technical support for the Centre operations.
7. The Centre will be guided by the Governing Board. The Board membership will be open to all Member States of IOC which are interested in the activities of the Centre, and provide the necessary notification for membership to the Board.
8. Finally, Mr Barbière pointed out that in case of endorsement of the establishment of the Centre by the Assembly, the Assembly decision regarding the Indian Proposal, the draft Agreement and a feasibility study report will be submitted to the Director-General of UNESCO for consideration of the Executive Board of UNESCO at this year session.
9. Mr Barbière’s introduction was followed by the description of available and planned INCOIS facilities and research and training activities introduced by INCOIS Director, Professor Satheesh Shenoi. He emphasized that these facilities will be provided to meet the proposed Centre objectives and will give future trainees every opportunity to benefit from expertise and experience of the Institute in improving operational oceanographic capabilities of the countries they represent. Finally, he demonstrated the letters of support, received from several countries from the region and around the world, to the establishment of the Centre.
10. The Assembly expressed full support to the establishment of the Centre highlighting the benefits the Indian Ocean Rim countries and countries of Africa will gain through improving their research capacities, fostering regional cooperation, facilitating data collection and exchange.
11. The Assembly stressed great potential of the Centre in knowledge sharing and advocating innovative approaches in capacity development and training. Special acknowledgement was expressed concerning the readiness of the Centre to provide valuable support to SIDS in ocean resources use and protection.
12. The delegate from South Africa noted that the Centre when established, will complement the Centre being developed in his country to serve the African countries, and further enhance South-South cooperation. These two Centres when established and operational will contribute to closing the gap along the east coast of Africa in activities related to IOC programmes such as IIOE-2, GOOS and others.
13. The representatives of seven Member States took the floor.
14. The Assembly adopted Decision IOC-XXIX/3.4.6.

**Proposal to Establish the International Training Centre on   
Operational Oceanography (India) as a Category 2 UNESCO Centre**

The Assembly,

Having examined Document IOC-XXIX/2 Annex 7 and Addendum,

Recalling rules of procedure for the establishment of UNESCO Category 2 Centres and UNESCO and IOC Medium-Term Strategy high-level objectives,

Noting that the proposal and fact-finding mission report conclusions fully correspond to the principles and guidelines of those documents,

Noting further that the creation of the International Training Centre on Operational Oceanography (India) as a Category 2 UNESCOCentre would be highly valuable for implementing international and regional cooperation in the areas of ocean and coastal research, marine hazards mitigation, management and capacity development,

Endorses the Proposal to Establish the International Training Centre on Operational Oceanography hosted by the Indian Centre for Ocean Information (INCOIS) of the Ministry of Earth Sciences as a UNESCO Category 2 Centre;

Requests the IOC Executive Secretary to forward this decision to the Director-General of UNESCO;

Urges Member States of IOC to support activities of the Centre when established, by participating in the work of the Centre Governing Board and making firm commitments for financial contribution to the Centre activities.

**7. EARLY WARNING AND SERVICES**

7.1 REGIONAL TSUNAMI WARNING SYSTEMS

**7.1.1 Intergovernmental Coordination Group for the Pacific Tsunami Warning and Mitigation System: 27th Session of ICG/PTWS, 28-31 March 2017, Tahiti, France**

1. Ms Filomena Nelson (Samoa), Chair of the Intergovernmental Coordination Group for the Pacific Tsunami Warning and Mitigation System (ICG/PTWS), introduced this item. Ms Nelson reported on recent progress of the ICG/PTWS, including on the Enhanced Products developed by the North-West Pacific Tsunami Advisory Center (NWPTAC) that will start to be issued in parallel with current products in the second half of 2017, with a change-over date proposed for 2018. She further reported that the ICG/PTWS endorsed the recommendations of the South China Sea Regional Working Group of the South China Sea Tsunami Advisory Centre (SCSTAC), hosted by China, which will initiate trial operations in late 2017.
2. She further reported that the ICG/PTWS at its 27th Session decided to move the next biennial PacWave exercise to the months of September through to November 2018 to support the International Disaster Risk Reduction Day (13 October) and the World Tsunami Awareness Day (5 November). It also decided to continue the Task Team on Evacuation Planning and Mapping (TEMPP) to support the preparation of tsunami evacuation maps and associated response plans for tsunami-vulnerable coastal communities, and the Task Team on Future Goals and Performance Monitoring, to look into performance monitoring measures and develop a PTWS Status Report.

[*Discussion and Decisions on this item is provided under item 7.2*]

**7.1.2 Intergovernmental Coordination Group for the Indian Ocean Tsunami Warning and Mitigation System: 11th Session of ICG/IOTWMS, 18-20 April 2017, Kuala Lumpur, Malaysia**

1. Mr Andi Eka Sakya, Chair of the Intergovernmental Coordination Group for the Indian Ocean Tsunami Warning and Mitigation System (ICG/IOTWMS), introduced this item. He reported on the key activities of the ICG/IOTWMS since it was last reported to the Assembly. He informed that the 11th Session of the ICG/IOTWMS was held in Putrajaya, Malaysia from 18 to 20 April 2017. He highlighted the results of the IOWave16 exercise (7–8 September 2016) indicating that all 24 active Member States participated. About 60,000 people from 12 IOTWMS Member States conducted coastal evacuation during the IOWave16. He informed the Assembly that efforts in the intersessional period were focussed on enhancing Tsunami Service Provider (TSP) services to conform to the IOTWMS service definition, capacity building of Member States through trainings and workshops to enhance risk assessment, awareness and preparedness and develop integrated Standard Operating Procedures. There has been increased engagement amongst countries in the North West Indian Ocean region for enhancing an end-to-end warning system. He informed that, during the intersessional period, the earthquake of 7.8 magnitude to the southwest of Sumatra on 2 March 2016 resulted in the TSPs issuing tsunami threat information. He also informed that a formal partnership agreement between the IOC and the Agency for Meteorology, Climatology and Geophysics of Indonesia was signed to support sustainability and continuation of the Indian Ocean Tsunami Information Centre (IOTIC) until 2022.
2. Mr Andi Eka Sakya informed the Assembly that the ICG/IOTWMS would continue to focus on community awareness and preparedness. A new Task Team on “Capacity Assessment of Tsunami Preparedness” has been established to oversee capacity assessment of tsunami preparedness as well as to develop guidelines and pilot implementation of a TsunamiReady programme in the Indian Ocean. He highlighted the importance of data sharing among North-West Indian Ocean Member States to improve warning capability in the Makran region. The ICG will also conduct two joint TSP/NTWC/DMO/Media training workshops on Standard Operating Procedures in the intersessional period, subject to the availability of funding, IOWave 18 tsunami drill and also a sub-regional tsunami drill among the Member States of the North-West Indian Ocean.

[*Discussion and Decisions on this item is provided under item 7.2.*]

**7.1.3 Intergovernmental Coordination Group for the Tsunami and Other Coastal Hazards Warning System for the Caribbean and Adjacent Regions: 12th Session of the ICG/CARIBE-EWS, 10-12 May 2017, Puntarenas, Costa Rica**

1. Ms Christa Hillebrandt-Andrade, Chair of the Intergovernmental Coordination Group for the Tsunami and Other Coastal Hazards Warning System for the Caribbean and Adjacent Regions (ICG/CARIBE-EWS). She highlighted the results of the Caribe Wave17 exercise that mobilized 740,000 people on 23 March 2017.
2. Ms Hillebrandt-Andrade reported on other results of the 12th Session of the Intergovernmental Coordination Group for the Tsunami and Other Coastal Hazards Warning System for the Caribbean and Adjacent Regions, hosted in Puntarenas, Costa Rica, 10–12 May 2017. The Group decided to establish a Task Team on Global Navigation Satellite System (GNSS) under Working Group 1 on Monitoring and Detection Systems to complement the seismic and sea level data. It also established a Group of Experts (GoE) on Work and Implementation Plan to enhance the warning system by including other coastal hazards. She noted that 52 communities in the Caribbean have implemented a community based performance recognition programme. Based on the 2015, IOC approved CARIBE-EWS TsunamiReady guidelines, St. Kitts and Nevis and the British Virgin Islands have received TsunamiReady recognition in 2016–2017. She also highlighted that 100% of CARIBE-EWS nations and territories have designated Tsunami Contact and Warning Focal Point(s).

[*Discussion and Decisions on this item is provided under item 7.2.*]

**7.1.4 Intergovernmental Coordination Group for the Tsunami Early Warning and Mitigation System in the North-Eastern Atlantic, the Mediterranean and Connected Seas: 12th Session of ICG/NEAMTWS, 26-28 September 2016, Bucharest, Romania**

1. Mr Ahmet Yalciner, Chair of the Intergovernmental Coordination Group for the Tsunami Early Warning and Mitigation System in the North-Eastern Atlantic, the Mediterranean and Connected Seas (ICG/NEAMTWS) introduced this item. He reported on the developments of the ICG/NEAMTWS notably the ICG led accreditation of NEAMTWS candidate Tsunami Service Providers (CTSPs). Four Candidate Tsunami Service Providers [CENtre d'Alerte aux Tsunamis (France), Istituto Nazionale di Geofisica e Vulcanologia—Centro Allerta Terremoti (Italy), National Observatory of Athens (Greece) and Kandilli Observatory and Earthquake Research Institute (Turkey)] have been accredited and are now labelled Tsunami Service Providers (TSPs). He noted the intention of Portugal to start its national tsunami warning operating in 2017.
2. He informed that NEAMWave17 Tsunami exercise will take place in the first week of November 2017 prior to the World Tsunami Awareness Day (5 November). Two tsunami information meetings are planned in Tunisia and Spain in September 2017 to inform about the NEAMWave17 exercise and NEAMTWS.
3. Mr Yalciner underlined that continued development of the NEAMTWS depends on the active involvement of Member States and their Civil Protection Authorities (CPAs) in the routine activities of the ICG. He also emphasized that for NEAMTWS to improve its performance there is a need to improve real-time exchange of seismic and sea-level data with countries along the southern rim of the Mediterranean Sea, and he appealed for Member States to engage and support this development.
4. Finally, Mr Yalciner emphasized the importance of the NEAM Tsunami Information Centre (NEAMTIC), which works in tandem with the NEAMTWS, and invited Member States through funding and secondments to contribute to its maintenance and further improvement.

[*Discussion and Decisions on this item is provided under item 7.2.*]

7.2 GLOBAL COORDINATION OF WARNING AND MITIGATION SYSTEMS FOR OCEAN HAZARDS (TOWS-WG-X), 23-24 FEBRUARY 2017, PARIS, FRANCE

1. Mr Alexander Postnov, Chair of the Working Group on Tsunamis and Other Hazards Related to Sea-Level Warning and Mitigation Systems (TOWS-WG) introduced this item. He reported on the decisions and recommendations of the 10th meeting of TOWS-WG.
2. Member States commended the work of ICG/PTWS, ICG/IOTWMS, ICG/NEAMTWS, ICG/CARIBE-EWS and TOWS-WG.
3. The Assembly noted the need for continued efforts by Member States to maintain and enhance the IOTWMS especially with respect to strengthening tsunami awareness and response. Australia confirmed that it will continue to provide underpinning funding support to the ICG/IOTWMS Secretariat for at least the next two years, having done so since 2005.
4. Some Member States noted that despite the improvement in NEAMTWS, the recent low magnitude earthquakes and small tsunamis in Greenland and South of the Greek Islands underscored the limitations of NEAMTWS, and the need to further raise awareness on tsunami risk in the region.
5. Portugal informed the Assembly that they will host ICG/NEAMTWS–XIV in Lisbon, 21–23 November 2017, and will take the opportunity to launch Portugal’s Operational Tsunami Warning Centre.
6. Following the adoption of the decision for this item, accreditation certificates were provided to the four Tsunami Service Providers from NEAMTWS.
7. The Assembly noted the high number of participants in Tsunami exercises in the Caribbean and noted the excellent results of the IOWave exercise in the Indian Ocean. The Assembly appreciated the value of the services provided by Tsunami Service Providers (TSPs) in all regions. Member States elaborated their support of the Tsunami Warning Systems through a variety of mechanisms, including data sharing and support of seismic and sea level observational networks, as well as direct extra budgetary support of regional and global Tsunami Networks. Some Member States also expressed concern over continuing data buoy vandalism and the need of more research on local field tsunamis. Several organizations also emphasized mutual benefit of collaboration with the IOC Tsunami programmes including on warning services for navigators, bathymetry, warning dissemination through common protocols and increased public awareness through the World Tsunami Awareness Day (WTAD).
8. The Representatives of 18 Member States and 4 observers (IHO, UNISDR, WMO and GEBCO) took the floor. The following Member States chose to provide records of their plenary intervention on this agenda item for the informational annex to the meeting report: Australia, Canada, Chili, Egypt, India, Japan, Malaysia, Oman, Peru, Republic of Korea, Turkey, GEBCO, UN-ISDR and WMO.
9. The Assembly adopted Decision IOC-XXIX/7.2.

**Tsunami and Other Coastal Hazards Warning Systems**

The Assembly,

Having considered the executive summary reports of the recent sessions of the Intergovernmental Coordination Groups for: the Pacific Ocean Tsunami Warning and Mitigation System (ICG/PTWS-XXVII), The Indian Ocean Tsunami Warning and Mitigation System (ICG/IOTWMS-XI), the Tsunami and Other Coastal Hazards Warning System for the Caribbean and Adjacent Regions (ICG/CARIBE EWS-XII), the North-Eastern Atlantic, the Mediterranean and Connected Seas Tsunami Warning and Mitigation System (ICG/NEAMTWS-XIII), and the report of the Working Group on Tsunamis and Other Hazards Related to Sea-Level Warning and Mitigation Systems (TOWS-WG-X),

Acceptsthe reports by the IOC/ICGs and TOWS-WG;

Notes with satisfaction the progress made during the intersessional period, including:

1. three exercises (CARIBEWave 2017, IOWave 2016, PACWave 2017) and regular communication tests carried out;
2. the expertise that the PTWS Task Team on Evacuation Planning and Mapping has established with regards to this programme, as well as the interest in the new PTWS course Tsunami Evacuation, Maps, Plans, and Procedures (TEMPP) and the CARIBE-EWS Pilot Caribbean Tsunami Ready Programme among some Member States;
3. Tsunami Ready recognition achieved by St Kitts & Nevis, Cedeño (Honduras) and Ostional (Costa Rica);
4. the renewal of the Memorandum of Understanding between UNESCO and the Government of Barbados for the hosting of the Caribbean Tsunami Information Center—CTIC;
5. the accreditation of the four TSPs in NEAMTWS (CENtre d'Alerte aux Tsunamis (France), Istituto Nazionale di Geofisica e Vulcanologia—Centro Allerta Terremoti (Italy), National Observatory of Athens (Greece) and Kandilli Observatory and Earthquake Research Institute (Turkey);
6. the development by DBCP of an educational strategy to address buoy vandalism;
7. **Pacific Tsunami Warning and Mitigation System (PTWS)**

Recognizes the critical contribution of the Oceania Regional Seismic Network (ORSNET) to the PTWS and appreciates the French Government's contribution that helped establish this key network and the intention of the Vanuatu Government to continue to administrate the network pending availability of resources;

Requests ORSNET Member countries and other PTWS Members States to urgently seek funding resources with relevant development partners to sustain this important network;

Welcomes and appreciates the USA's offer to restart the NOAA/PTWC Heads-up SMS service, discontinued in October 2014, as a two-year trial project for PTWS and CARIBE-EWS Member States;

Endorses the Northwest Pacific Tsunami Advisory Center Enhancing Tsunami Products as presented in ICG/PTWS-XXVII report (Annex IV) and requests the NWPTAC to start issuance of experimental NWPTAC Enhancing Products in parallel with current products in the second half of 2017;

Endorses the starting of trial operations of the South China Sea Tsunami Advisory Centre (SCSTAC) in late 2017, with specific date to be decided by the Steering Committee of the ICG/PTWS to be announced by the IOC Secretariat to South China Sea Region Member States through circular letter at least 60 days in advance;

**II. Indian Ocean Tsunami Warning and Mitigation System (IOTWMS)**

Notes with appreciation that the Indian Ocean Data Coverage (IODC) service previously operated by the now-decommissioned EUMETSAT Meteosat-7 satellite has been taken over by Meteosat-8 ensuring continuity of real-time sea level data for tsunami warnings;

Notes with concern the instances of Tsunami Buoy Vandalism in the IOTWMS region;

Notes the importance of seismic data for timely and accurate determination of tsunami threat by TSPs, and urges Member States, especially in the North West Indian Ocean, to provide all relevant real-time seismic data;

Congratulates ICG/IOTWMS Member States for the success of the IOWave 16 exercise in advancing tsunami readiness in the region by mobilizing 60,000 participants in community drills in 12 countries;

Welcomes the establishment of a new ICG/IOTWMS Task Team on "Capacity Assessment of Tsunami Preparedness" to oversee capacity assessment of tsunami preparedness of IOTWMS Member States, develop guidelines for a Tsunami Ready programme in the Indian Ocean, guide pilot implementation and contribute to development of consistent global guidelines;

1. **Tsunami and Other Coastal Hazards Warning System for the Caribbean   
   and Adjacent Regions (CARIBE-EWS)**

Appreciates the efforts of the Government of Barbados for renewing the MOU to host the CTIC and appreciates those of the Executive Secretary to include support for the CTIC director position in Barbados in the IOC budget;

Recognizes the potential benefit of high rate, real-time GNSS data to improve earthquake and tsunami detection and assessment, and welcomes the establishment of a dedicated Task Team on Global Navigation Satellite System (GNSS) under Working Group 1 on Monitoring and Detection Systems;

Notes with interest the establishment of a Group of Experts (GoE) on Work and Implementation Plan to enhance the warning system by including other coastal hazards;

Welcomes the establishment of a new ICG/CARIBE-EWS Tsunami Ready Task Team to support the piloting of the CARIBE-EWS Tsunami Ready guidelines and contribute to the development of consistent global guidelines that are harmonized between the ICGs;

Notes the priority to create tsunami evacuation maps and welcomes the establishment of a joint Task Team of Working Group 2 on Hazard Assessment and Working Group 4 on Public Awareness, Education and Resilience to improve capacity building in the region in order to have Tsunami Evacuation Maps for as many coastal communities as possible;

Congratulates ICG/CARIBE-EWS Member States for the success of the CARIBEWave 17 exercise in advancing tsunami readiness in the region by mobilizing over 740,000 participants, and notes that CARIBEWave 18 will take place on Thursday, 15 March 2018 commencing at 1400 UTC with three scenarios for the Member States to choose from (Barbados, Colombia and Puerto Rico);

1. **North-Eastern Atlantic, the Mediterranean and Connected Seas   
   Tsunami Warning and Mitigation System (NEAMTWS)**

Endorses the accreditation of the four TSPs in NEAMTWS (CENtre d'Alerte aux Tsunamis (France), Istituto Nazionale di Geofisica e Vulcanologia—Centro Allerta Terremoti (Italy), National Observatory of Athens (Greece) and Kandilli Observatory and Earthquake Research Institute (Turkey);

1. **Working Group on Tsunamis and Other Hazards Related to Sea-Level Warning and Mitigation Systems (TOWS-WG)**

Encourages Member States to:

* sustain and increase technical and financial support of the tsunami warning systems in their respective regions;
* further promote tsunami awareness in communities and among authorities through communication and tsunami wave exercises, training, information, and community preparedness and recognition programmes;
* share Tsunami source scenario data as well sea level data relevant to tsunami detection and alerts;
* densify sea level networks particularly nearby tsunamigenic sources;
* extend exercises to community level and include critical infrastructure in exercises (e.g. hospitals, fire stations, police stations, electric power plants, airports, ports and harbours);

Instructs ICGs to:

* consider piloting the CARIBE-EWS Tsunami Ready guidelines and report back to the TOWS-WG-XI with a view to develop harmonized consistent global guidelines;
* advocate World Tsunami Awareness Day (5 November) among Member States and advise them of the availability of material from the UNISDR in this regard, and share activities and materials with UNISDR and TICs;
* recommend TSPs and NTWCs to also use the Common Alerting Protocol (CAP) to facilitate warning messages to be consistently disseminated simultaneously over many warning communication systems to many applications;
* also recommend TSPs and NTWCs register with international register of alerting authorities through their WMO National Permanent Representative;
* review the educational strategy to address buoy vandalism developed by DBCP and consider contributing any education or outreach materials related to data buoy vandalism to the DBCP for inclusion in a tool kit of regionally relevant materials to counter vandalism;
* in line with IOC Assembly decision 8.2 at its 27th session, continue ICG/PTWS’ work on the Key Performance Indicators (KPI) to cover all aspects of the Tsunami Warning and Mitigation Systems, aligning as closely as possible with the Sendai Framework, and share it to the other ICGs for consideration by the Member States, and report back to TOWS-WG-XI with a view to establish global KPIs;
* encourage NTWCs disseminate tsunami bulletins to ports, harbours and other maritime authorities within their countries;
* share the results of Tsunami exercises and communication tests with WMO to facilitate improved performance of WMO related communication systems;

Decides to:

* conduct a symposium on 11–14 February 2018 in Paris on enhancing existing TSP and NTWC operational tsunami forecasting to further develop warning products and enhancing timely, accurate, reliable and effective decision-making and community response, involving experts from monitoring networks, seismology, tsunami forecast modelling and warning centres, maritime authorities, and national and local emergency management authorities with advice on product requirements;
* extend the tenure of TOWS and its Task Teams for another intersessional period with ToRs as given in IOC Resolution XXIV-14 [for TOWS-WG] and IOC/TOWS-WG-VI/3 [Annex II; for TTDMP] and ToRs for TTTWO as given in TOWS-WG-X.

**9. SUSTAINABLE DEVELOPMENT AND GOVERNANCE**

*[Item 9.1 is to be found in Part 2]*

*[Item 9.2 is to be found in Part 4]*

9.3 INTEGRATED COASTAL AREA MANAGEMENT PROGRAMME (ICAM) STRATEGY IMPLEMENTATION

1. In accordance with IOC-XXVIII/Decision 10.2, Mr Alejandro Iglesias-Campos, ICAM Technical Secretary, introduced this item and provided a progress report on the implementation of the ICAM Strategy, covering activities that are being developed in the field of Marine Spatial Planning (MSP), coastal hazards mitigation, large marine ecosystems and decision-support tools for coastal and ocean management. He highlighted the work that IOC is leading in supporting ecosystem-based management practices and highlighted the outcome of the 2nd International Conference on MSP, organized jointly with the European Commission at UNESCO in March 2017.
2. In order to move forward the global ocean agenda, and in particular, the promotion of marine spatial planning at global level, both institutions launched a Joint Roadmap defining the priority areas and strategic objectives for mutual cooperation. The Joint Roadmap encourages the development of MSP in all seas and oceans with the objective to triple the area of territorial waters benefiting from MSP by 2030, hence reaching a coverage of one third of the total surface area of waters under national jurisdictions. The Joint Roadmap was put forward to the UN Ocean Conference as voluntary commitment.
3. The five priority areas and subsequent key actions of the Joint Roadmap focus on: developing guidance on transboundary MSP; the implementation of two regional case studies in the West-Mediterranean and the South Pacific; developing the “blue economy” in the context of the 2030 Agenda; enabling ecosystem-based MSP; pursuing capacity building; and building a mutual understanding for communicating MSP.
4. The ICAM Technical Secretary also reported on the implementation progress of the European funded project AQUACROSS. The Secretariat is leading the activities dedicated to the design and development of the project’s information platform and the implementation of the case study at the Intercontinental Biosphere Reserve of the Mediterranean: Andalusia (Spain)–Morocco on the establishment of green and blue infrastructures. An MoU for this project was signed between IOC Secretariat and the Regional Ministry of Environment of the Government of Andalusia (Kingdom of Spain).
5. The Assembly was reminded that the Government of Flanders (Kingdom of Belgium) approved a third phase of the SPINCAM project (2017–2019) dedicated to the coastal and marine ecosystems integrated approach for sustainable blue growth in the Southeast Pacific.
6. The Assembly was satisfied with the technical support the IOC provided to the community of Large Marine Ecosystems (LME). A dedicated technical secretariat has been established at IOC to facilitate the sharing of knowledge related to transboundary management, the building of technical capacity, as well as supporting South-to-South and North-to-South learning in the context of the LME: LEARN project led by IOC and UNDP and funded by the Global Environmental Facility. The Technical Secretary highlighted the need to ensure the sustainability of the secretariat in IOC from 2019 in order to continue supporting the LME activities at global and regional scale.
7. The Assembly was informed of the latest guide on the design and implementation of coastal hazard mitigation actions at local level. The guide will also be available in Spanish and Portuguese by early 2018.
8. Member States were pleased that the staff of the Marine Policy and Regional Coordination Section has participated during the intersessional period in more than 50 events dedicated to training and dissemination of the objectives of the ICAM Strategy in Africa, America, Asia and Europe. The Technical Secretary emphasized the willingness to increase the number of dedicated trainings and events in collaboration with Member States and regional partners, especially in Africa and the West Pacific.
9. The Technical Secretary suggested modifying the ICAM Strategic Objectives as reflected in Document IOC-XXIX/2 Annex 18 to better reflect the evolving needs of Member States in the field of ICAM in line with the implementation of 2030 Agenda and specifically, the Sustainable Development Goal 14.
10. The representatives of eight Member States took the floor. The following Member States chose to provide records of their plenary intervention on this agenda item for the informational annex to the meeting report: China and Malaysia.
11. The Assembly adopted Decision IOC-XXIX/9.3.

**Integrated Coastal Area Management Programme (ICAM) Strategy Implementation**

The Assembly,

Reminding IOC-XXVIII/Decision 10.2,

Having examined Document IOC-XXIX/2 Annex 16,

Takes note of the progress in implementing the IOC Integrated Coastal Area Management (ICAM) Strategy, including activities related to marine spatial planning and large marine ecosystems, and of the reformulation of the ICAM Strategic Objectives;

Welcomes the Joint Roadmap launched by the IOC Secretariat and the European Commission to accelerate Marine/Maritime Spatial Planning processes worldwide;

Expresses its deep appreciation to the Kingdom of Belgium (Government of Flanders) for the continuous support to the ICAM Programme through the SPINCAM Project, Phase 3 (2017–2019) and the extra-budgetary resources provided for the organization of the 2nd International Conference on Marine/Maritime Spatial Planning;

Further expresses its appreciation to the European Commission’s Directorate General for Maritime Affairs and Fisheries for the jointly organized 2nd International Conference on Marine/Maritime Spatial Planning, the Joint Roadmap to accelerate Marine/Maritime Spatial Planning processes worldwide and the joint voluntary commitments to the Ocean Conference;

Invites Member States to support through extra-budgetary resources, as well as in-kind contributions, the ICAM Strategy and relevant initiatives related to integrated coastal area management, coastal hazards mitigation, marine spatial planning, sustainable blue growth and large marine ecosystems.

**10. CAPACITY DEVELOPMENT**

10.1 CAPACITY DEVELOPMENT STRATEGY: IMPLEMENTATION PLAN

1. Mr Peter Pissierssens, IOC Capacity Development Coordinator introduced this item. He recalled that the IOC Capacity Development Strategy, 2015–2021 was published in 2015 (IOC/INF-1332) and a dedicated IOC website was launched in April 2016 (<http://www.ioc-cd.org>). The website provides information on the strategy and offers links to capacity development opportunities offered worldwide. Member States contribute information on CD-related opportunities and activities and promote nationally the subscription to the site’s new mailing list system. Japan provided a 3-month internship (November 2016–January 2017) to assist with entering information in the website.
2. In order to assist with the implementation of the IOC Capacity Development (CD) Strategy, an ‘IOC Capacity Development Fund’ was launched in September 2016 as a resource mobilization mechanism. The Fund is intended to enable Member States to financially support very specific activities with a strong capacity development focus such as training courses, equipment provision, expert missions or any other activity responding to the Strategy outputs. In order to provide the highest possible flexibility, the maximum budget of each proposal is set to US$100,000. Proposals were invited from the IOC regional and technical subsidiary bodies. The list of proposals is open to additions any time and Member States are invited to check the list regularly on the new CD website (Fund Proposals). Regrettably, no Member States have come forward to fund any of the proposals at this date.
3. Mr Pissierssens recalled that Resolution XXVIII-2 by which the CD Strategy was adopted also called to “*develop programmatic and regionally relevant capacity development work plans based on this strategy*”. In this regard, Mr Pissierssens noted that the work plans of the global programmes and regional sub-commissions are drafted at their respective governing bodies, which meet too close to the Assembly to allow a complete review of the CD elements in 2017. Instead it was decided to: (i) request each global programme and regional sub-commission/committee to provide information on how they currently address the six outputs of the strategy; (ii) identify gaps where an output, activity or action is currently not addressed; and (iii) identify (first attempt) efforts and associated resource requirements to address the gaps. The results of this study are set out in document IOC-XXIX/2 Annex 17 (Parts 1 and 2).
4. Remedial actions for both the global and regional programmes are recommended. The document also compares the IOC CD Strategy outputs with the *IOC Criteria and Guidelines on the Transfer of Marine Technology* defined in 2005 (IOC/INF-1203) noting that a number of required tools have already been developed.
5. The document notes that IOC CD coordination is currently resourced by 20% full-time equivalent of the Head, IOC Project Office for IODE, assisted by the IODE training coordinator. This level of support is insufficient to ensure the required tasks.
6. Ms Francesca Santoro reported on IOC Ocean Literacy activities undertaken in the last intersessional period. Ms Santoro highlighted the progress made in terms of global and regional cooperation on ocean literacy. Further activities will be implemented in the framework of the Ocean Literacy for All initiative presented at the UN Ocean Conference, held in June 2017 in New York.
7. Many Member States provided information on activities organized as contributions to regional or global capacity development. Details are available in the Assembly meeting report informal annex of interventions. The Assembly urged Member States to inform the IOC Secretariat’s CD coordinator about any CD-related activity organized nationally, regionally or globally so the information can be shared with all IOC Member States through the IOC CD web site.
8. The Assembly welcomed the Ocean Literacy initiatives carried out by the IOC noting that, without involvement of young citizens and the general public, our efforts towards sustainable management of coastal areas and oceans will have no sustainable impact.
9. The Assembly noted with concern the lack of sufficient resources to coordinate IOC’s capacity development between the IOC Secretariat and the Secretariats of the regional Sub-Commissions, and noted the lack of funds to support the required capacity development activities. In this regard, the Assembly called on Member States to provide internships, secondments or in-kind human resource support, and/or financial contributions to the IOC CD Fund, or in-kind contributions to enable the implementation of CD activities. It was noted that closely linking IOC CD work plans with existing national programmes would make such support more feasible. The Assembly further requested the IOC Secretariat to issue another circular letter calling for contributions to the IOC CD fund as well as to invite other contributions to the IOC CD strategy implementation.
10. The Assembly welcomed the establishment of OceanTeacher Global Academy Regional Training Centres (OTGA RTC) and WESTPAC Regional Training and Research Centres as locally hosted, managed and supported CD centres, coordinated regionally or globally with complementary external support. It was noted that some additional regional training centres are emerging and collaboration with these should be established as well.
11. The Assembly called for a special focus on Small Island Developing States in the CD work plans.
12. The Assembly, while stressing the leading role of the IOC in ocean-related capacity development, called for closer collaboration with other organizations in this area, in order to share expertise and experience, to promote complementarity and to avoid duplication of effort.
13. The Assembly recommended that the IOC Vice-Chairs should play an advisory role in promoting CD at the regional level.
14. The representative of WMO invited IOC to collaborate with WMO within the framework of WMO’s Global Campus (<http://learn.wmo.int)>, which has a similar network of Regional Training Centres, as the two organizations could share experiences, especially taking into account their Joint Technical Commission for Oceanography and Marine Meteorology.
15. The representative of POGO (also speaking on behalf of SCOR) referred to the long history of collaboration between POGO, SCOR and IOC in the area of capacity development and welcomed continued collaboration in this regard.
16. The representatives of 17 Member States and 2 organizations took the floor. The following Member States chose to provide records of their plenary intervention on this agenda item for the informational annex to the meeting report: Australia, Belgium, China, India, Japan, Oman, Peru, Philippines, Republic of Korea, Thailand, United Kingdom, Pogo and WMO.
17. The Assembly adopted Decision IOC-XXIX/10.1.

**IOC Group of Experts on Capacity Development**

The Assembly,

Recognizing the importance of Capacity Development as one of the six functions of the IOC Medium-Term Strategy (2014–2021), enabling all Member States to participate in, and benefit from, ocean research and services that are vital to sustainable development and human welfare on the planet,

Recalling the adoption, at its 28th Session, of the IOC Capacity Development Strategy (2015–2021),

Welcoming the contributions of its Member States towards capacity development at the global and regional level through financial and in-kind contributions,

Stressing the need to share, across programmes and regions, experience and expertise in capacity development, and to coordinate efforts to increase efficiency and maximize impact,

Establishes the IOC Group of Experts on Capacity Development with the following terms of reference:

1. assist global and regional programmes with the implementation of capacity development needs assessments in a consistent manner;
2. assist global and regional programmes with the development of programmatic and regionally relevant capacity development work plans based on the IOC CD strategy and related needs assessments, building on ongoing activities and making use of existing training and education facilities;
3. assist with the mobilization of financial and in-kind resources to enable the implementation of global and regional capacity development work plans;
4. provide advice to global and regional programmes on relevant methods and tools to improve the quality and impact of CD efforts;
5. advise the Assembly on, and start implementation of, the Transfer of Marine Technology Clearing House Mechanism (CHM) as requested by the *IOC Criteria and Guidelines on the Transfer of Marine Technology* (IOC/INF-1203), making use, to the largest extent possible, of existing data and information systems already available at IOC;

Invites Member States to nominate suitable candidate members for the Group;

Instructs the Group to report to each session of the Assembly;

Decides to allocate resources in the IOC Programme and Budget Resolution XXIX-2 to cover a meeting of the group per biennium ($30,000).