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# 정부간해양학위원회(IOC) 제28차 총회 및 제48차 집행이사회 참가 보고서

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한국해양과학기술원

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외 교 부  
Ministry of Foreign Affairs



국립해양조사원 KHOA  
Korea Hydrographic and Oceanographic Administration



기상청  
Korea Meteorological Administration



# 목 차



I. 회의개요 .....	1
II. IOC 제28차 총회 및 제48차 집행이사회 혼령 .....	2
III. IOC 의장단회의 결과 보고 .....	5
IV. 제48차 IOC 집행이사회 결과 보고 .....	7
V. IOC 해양과학의 날 활동 보고 .....	10
VI. 제28차 IOC 총회 결과 보고 .....	13
VII. 회기 중 위원회 및 작업반 회의 참가 활동 .....	47
VIII. 대양수심도 관련 회의 보고 .....	60
IX. 제28차 IOC 총회 관찰 및 평가 .....	80
X. 첨부자료 .....	83
1. 의제목록 및 시간표 .....	85
2. 제48차 IOC 집행이사회 회의록(IOC 공식 영문 요약보고서) .....	93
3. 제28차 IOC 총회 회의록(IOC 공식 영문 요약보고서) .....	101
4. 한국대표단 발언문 .....	167
5. IOC 집행이사회 선거결과 .....	191
6. 2014년 IOC 예산 집행보고 및 2015년 예산(안) .....	195
7. 의장 연설문 .....	217
8. 참가자 명단 .....	223



## I 회의개요

### □ 기간 및 장소

- 회의장소 : 파리, UNESCO 본부
- 회의일정 : '15.6.15 (IOC 의장단 회의)
  - '15.6.16 (제48차 IOC 집행이사회)
  - '15.6.17 (해양과학의 날)
  - '15.6.18~6. 25 (제28차 IOC 총회)

### □ 참석규모

- 147개 회원국 정부대표 및 옵서버, UNEP, IHO, GOOS, IODE, JOCMM, GEBCO 및 사무국 관계자 등 약 300여명

### □ 정부대표단 : 총 20명

- 수석대표 : 조신희 해양수산부 국제원양정책관
- 교체수석 : 윤종호 해양수산부 해양개발과 과장
- 대 표 : 해양수산부(정재관, 김광용, 임채호, 김정현),  
한국해양과학기술원(이윤희), 기상청(유승협),  
국립수산과학원(이준수), 국립해양조사원(이재연),  
이화여자대학교(성효현), 주유네스코대표부(정영수, 김은영)
- 자 문 : 한국해양과학기술원(변상경, 김현영, 이웅열, 함상옥),  
한국해양조사협회(최신호), 한국지질자원연구원(한현철),  
해양수산부(김정례)

## II IOC 제28차 총회 및 48차 집행이사회 훈령

### 1. 총괄

- 아국은 제26차 집행이사회('93)부터 제47차 집행이사회('14)까지 22회 연속 집행이사국이자 '11년 이후 의장국으로서 IOC 내에서 선도적인 역할을 담당하고 있는 바,
  - 아국의 위상 제고를 위해 각 의제별로 아국의 입장을 표명하고 관련 활동을 발표하는 등 회의에 적극적으로 참여·발언할 것.
- 회의 및 국제 동향을 면밀히 파악하여 아국의 관련 정책 수립과 전략에 참고할 수 있도록 할 것.
- 본 훈령에 명시되지 않은 사안 중 경미한 사항은 수석대표의 재량으로 대처하되, 중대 사안에 대해서는 본부에 청훈하여 처리하고, 회의 종료 후 20일 이내에 결과보고서를 제출할 것.

### 2. 세부지침

- IOC 의장 선출시 의장 후보자가 아국에 우호적이거나 중립적인 인사인지 파악한 후 후보자 또는 소속국 정부의 지지요청에 대응할 것.
  - 의장 후보자에 대한 아국의 지지는 외교부 유네스코 대표부 등과 협의 후 국익을 고려하여 수석대표의 재량으로 결정할 것.
- 아국은 IOC 의장국으로서 IOC 집행이사국이었으나 의장의 임기만료로 집행이사국 지위가 종료되므로 가능한 한 집행이사국으로 선임될 수 있도록 할 것.

- 세계해양과학보고서(GOSR)는 아국을 포함한 회원국간의 해양과학 협력을 활성화하는 계기가 될 수 있음을 고려하여 향후 추진일정에 적극 협력할 것.
- 아국이 주관하는 IOC의 주요 활동에 대한 논의시 아국의 기여가 직접 또는 타 회원국의 발언을 통하여 알려지도록 노력할 것.
  - 특히, “세계 해양탄소 조정사업”, “4대 소외지역 운용해양학 서비스 활성화 포럼” 및 “동남아 산호밀집해역 서식종 DNA 분류 및 가입조사”에 대한 아국의 지원과 기여를 적극 홍보하고,
  - 사업이 종료된 후에도 그 취지와 효과가 지속되도록 회원국의 관심을 유도할 것.
- 아국이 참여하고 있는 IOC프로그램에 대한 아국의 활동실적을 알리고 지속적인 참여의사를 표명하며, 그 외 IOC 프로그램에 대하여는 내용을 검토하여 참여를 결정할 것.
  - 전세계 해양관측시스템 사업(GOOS: Global Ocean Observing System)
  - 해양학과 해양기후학 관련 WMO-IOC 기술위원회(JCOMM: Joint WMO
  - IOC Technical Commission for Oceanography and Marine Meteorology)
  - WMO-IOC-ICSU 세계 기후조사 프로그램(WCRP: WMO-IOC-ICSU World Climate Research Programme)
- 일본, 중국 등 주변국과 해양영유권, 해양지명 및 해저지명 표기문제 등이 거론되거나 그러한 문제에 영향을 미칠 수 있는 동향이 있는 경우 반드시 본부에 청훈하여 대처할 것.

- 특히, 대양수심도(GEBCO) 규정의 개정 관련, 개정안의 조문별 수정사항에 대해 국익이 최대한 확보될 수 있도록 심도 있게 분석하여 신속하고 적절하게 대응토록 할 것.
- GEBCO 규정 관련 ‘14년 PICES 총회시 개최한 한·중 양자회의 내용을 바탕으로 한·중간 긴밀한 협조 관계를 유지하고, 기타 국가와의 협력으로 개정안 재상정시 효율적으로 대응할 것.



### III IOC 의장단회의 결과 보고

#### 1. 2015년도 IOC의장단 회의

- 회의 일시: 2015년 6월 15일 오전
- 회의 장소: 유네스코본부 지하1층 회의실
- 회의 주재: 변상경 IOC의장
  - ※ 본 회의는 비공개회의로 변 의장 외 타 대표단장/원은 참석·배석 불가 하였음
- 본 회의는 IOC 전현직 임원들이 제28차 총회 및 제48차 집행이사회 개최계획에 대한 검토·자문을 취지로 함
- 제28차 총회 회기 중 병설운영 될 각종 위원회 구성계획(안)이 보고됨
  - 위원회(3): 재정 위원회, 결의안 위원회, 선거후보자 지명위원회
  - 작업반(3): 제28차 총회 의제 중 제2차 국제공동인도양탐사(IIOE-2), 대양수심도(GEBCO), 거버넌스 재구성 작업반, 개도국 해양과학역량강화 등 3개 안건에 대한 사전 심의조정
- GEBCO관련 의제에 관해 IOC사무국내 동 업무 책임자인 Julian Barbière 가 보고함
  - GEBCO 운영규정 및 절차규정 개정안 수정(안)
  - GEBCO 거버넌스(양 관련기구 즉 IOC, IHO와의 관계)를 재구성할 회기 간 워킹그룹의 직무권한규정(안)
- 의장단은 상기 의제 상정심의일(6.22)이전에 “회기 중 작업반(Sessional Working Group)”을 운영 할 것을 결정하고, 좌장, 시간, 장소, 참석자 등 회의구성에 대해서는 사무국에 일임함

## 2. IOC 지역위원회 회의

- IOC 사무총장 Dr. Vladimir Ryabinin과 부의장 Dr. Adoté Blim Blivi의 주관으로 지역위원회 프로그램과 IOC사무국 프로그램 간의 소통 증대 필요성과 방법에 대해 논의함
  - 전 지구 규모의 프로그램과 지역 규모의 프로그램의 연계성 강화
  - 회원국의 해양문제를 해결하는 신규 프로그램 공동 개발 등

## IV 제48차 IOC 집행이사회 결과 보고

### 1. 개 회

- 회의 일시: 2015년 6월 15일 오전 10시
- 회의 장소: 유네스코 본부 Room IV 회의실
- 변상경 의장은 IOC절차규칙 12(2)에 따라 제28차 총회 사전기획조정 역할(Steering Committee)을 수행하기 위한 제48차 집행이사회 개회를 선언함
- 변 의장은 본 회의가 신임 Vladimir Ryabinin사무총장이 사무총장 자격으로 최초 참석하는 IOC 회원국 정부간회의임을 알리며 회원국을 대표하여 환영함

### 2. 의제채택 및 서기지정

- 집행이사회는 제안된 의제를 원안대로 채택함
- Mr. Frederico Antonio Saraiva Nogueira(브라질)을 서기로 지정함

### 3. 회기 중 상설위원회 구성계획 승인

- 변 의장은 당차 총회 회기 중 구성될 3개 위원회의 구성계획을 다음과 같이 잠정함(확정은 총회에서 이루어짐)
  - 선거후보 지명위원회
    - 위원장: Javier Valladares(아르헨티나)
    - 간사: Thorkild Aarup

- 결의안 위원회
  - 위원장: Terry Schaefer(미국)
  - 간사: Julian Barbière
  
- 재정 위원회
  - 위원장: Peter Haugan(노르웨이)
  - 간사: Ksenia Yvinec

### 3.1 회기 중 4개의 실무작업반(Working Group) 설치

- 역량강화(Capacity Building) 실무작업반
  - 좌장: Adoté Blim Blivi(토고)
  - 위원국: 의장은 그룹5 전원 참석 독려
  - 설치목적/활동계획: 2015~2021 계획안 제출, 승인요청 예정
  
- 국제공동인도양탐사(IIOE-2) 실무작업반
  - 좌장: Satheesh Chandra Shenoi(인도)
  - 간사: Nick D'adamo
  - 설치목적/활동계획: 실행전략기조안 점검검토
  
- 대양수심도 검토(GEBCO Review) 실무작업반
  - 좌장: Craig Mclean(미국)
  - 간사: Julian Barbière(IOC 사무국)
  - 설치목적/활동계획: GEBCO운영위원회(GGC) 규정개정안 최종 검토. GEBCO 프로젝트에 대한 IHO와 IOC의 역할·기여도 점검 및 그에 따른 조정안 수립(좌장은 GGC 규정개정안을 이번 총회에서 가결되도록 하겠다는 의지를 밝힘)

### ○ IOC의 미래(Future of IOC) 실무작업반

- 좌장: Peter Haugan(노르웨이)
- 간사: Ksenia Yvinec
- 비고: 회기 간 위원회를 회기 중 실무작업반으로 연장 운영

## 3.2 총회 및 IOC 과학의 날 시행계획

- 총회 개최계획은 전일 의장단회의에서 검토 된 바 추가검토 없었음
- Luis Valdés 해양과학부장은 2015년 6월 17일 IOC 과학의 날 행사의 양대 테마와 초청연사를 보고함:
  - 주제1. 글라이더 이용한 해양조사
    - 초청연사1: 영국 엑스터의대 로라 플레밍 교수
    - 초청연사2: 미국 스캇 글렌 교수(고해상도4D관측)
    - 초청연사3: 남아프리카공화국 케이프타운대학교 해양연구소, 존 필드 교수(인도양에서 세계 대양까지 50년 회고)
  - 주제2. 북극연구의 장애물 극복방안
  - 포스터세션: IOC 산하 프로그램 소개

## 4. 차기 개최시기

- 제49차 집행이사회는 2016. 6.7(화) -6.10(금)에 소집할 것을 잠정적으로 결정함

## 5. 회의록 채택 및 폐회

- IOC 집행이사회는 회의록을 채택하고 폐회함.

## V IOC 해양과학의 날 활동 보고

### 1. 한·중 대표단 간 전략공조 협의

- 우리측 참석자: 해양수산부 윤종호 해양개발과장, 한국해양과학기술원 이운호 국제협력부장, 김현영 국제개발협력담당, 이웅열 KOC간사

중국측 참석자: 중국 국가해양국 국제합작사 국제기구과 Feng Jun

※ 타 중국대표(Jainfang Chen, Yang Yanfeng, Weidong Yu 등)은 17일(수) 저녁 파리도착 예정

- 중국의 기본입장 청취

- GEBCO의 발전을 위하여 IHO, IOC 양 기구의 균형이 필요함 (일개 특정기구 편중 지양)
- GEBCO 운영의 효율성도 중요하지만 효율을 위하여 모든 주요 의사결정권을 의장 1인 혹은 소수에게 집중시키면 궁극적으로 손해임
- GEBCO에 정치적 의도를 가진 개입에 반대함

- 한국의 기본입장 개진

- 중국의 입장에 동의함
- 다만, GEBCO 규정개정(안) 통과를 전제로 한 타협 논의가 진행될 경우를 대비한 대책 마련을 제안

- 한·중 양국간 논의 사항

- Preamble 2)

GEBCO의 명명대상 해저지명의 범위를 국제수역(international water)에

한정치 않고 모든 해역을 대상으로 하는 것은 IOC 회원 각국의 영해에 대한 권리를 침해할 수 있음. UN해양법에 위배될 가능성을 시사함. 동 항목과 연계하여 개정안 ToR 11의 첫 단어 “Engage”...를 현재 ToR 9의 “Cooperate”로 채택 주장

- RoP 1.4

특정교육훈련과정 출신자 중 1인을 GGC 위원장이 5년 임기의 읍져버로 선정하여 특별 영입하는 조항은 다른 국제기구나 프로그램에서 찾을 수 없는, 전례가 없는 비정상적인 규정임으로 무조건 삭제 (삭제 외 다른 대안 없음)

※ 절차규정 (RoP) 3.1에서 제시된 회원국이 읍져버를 대표로서 GEBCO 회의에 파견할 수 있다는 규정 활용 가능

- RoP 1.6

전문가 초청 권한을 GGC가 아닌 위원장에게 주는 것은 유사한 사례가 있음을 고려하여, ‘the chair’를 ‘the committee’로 원안 복귀를 주장하거나, 문단 가장 뒤의 ‘with the support of Guiding Committee Members’에서 ‘Members’삭제를 요구함으로써 committee 동의를 필요하게 함

- ToR 9.

GGC에게 GEBCO 산하 모든 단위조직(상설분과, sub-committee 및 비상설그룹, 실무작업반)의 개폐권을 부여하는 것은 GEBCO에게 IOC의 모든 권한을 위임하는 과도한 사항이며, GEBCO에 대한 IOC의 영향력을 약화시키는 결과를 초래한다는데 인식을 같이함. 대응 방안으로 1) GEBCO에 대한 IOC 회원국의 참여와 역할의 중요성과 IOC의 국제사회 기여 측면에서 GEBCO의 중요성을 강조, 2-1) 개정안에 ‘양 기구 허락을 득하여..., “with permission of IOC’를 추가, 혹은 2-2) 현 안(ToR 8)을 그대로 유지(현 안에는 상설분과 sub-committee는 GGC가 IOC에 개설을 제안(propose)하도록 하여 IOC의 승인을 필요로 함. 비상설 작업반의 경우는 GGC가 독자적으로 개폐할 수 있도록 되어 있음

- 새롭게 개설되는 GEBCO Review 그룹 직무권한 규정 검토  
향후 1년간 활동하게 될 GEBCO Review 그룹의 직무권한규정(TOR) 개정안은 IOC의 책임을 줄이는 방향으로 설정되어 있는 바, 오히려 IOC와 회원국의 책임과 역할을 강조하는 방향으로 개정되어야 함. 이러한 방향을 염두에 두고 직무권한규정을 면밀히 검토해야 함
- 상기 정정요청을 발언할 시 개정안을 공격적인 어조보다 GEBCO의 발전을 진심으로 희구하는 어조 유지가 필요함

## 2. GOOS Steering Committee 위원직 진출타진

- IOC 서태평양 지역 분과위원회(WESTPAC)회의에서 차기 GOOS Steering Committee 위원직에 국립수산과학원 이준수 연구사가 출마함

## 3. 주UNESCO 한국대사 예방

- 정부 대표단(해양수산부 윤종호 해양개발과장, 한국해양과학기술원 이운호 국제협력부장, 김현영 국제개발협력담당, 이용열 KOC간사, 기상청 유승협 사무관, 국립수산과학원 이준수 연구사)는 오후 7시 주 UNESCO 한국대표부 김병현 대사 관저를 예방하여 제28차 IOC 총회 현안을 보고 하였고, 김 대사는 대표단을 격려하였음

## 4. 한국대표단 선·후발대 합류

- 정부 대표단(해양수산부 윤종호 해양개발과장, 한국해양과학기술원 이운호 국제협력부장, 김현영 국제개발협력담당, 이용열 KOC간사)는 이날 오후 6시 프랑스 현지에 입국한 해양수산부 김광용 해양영토과장, 임채호 서기관, 김정현 사무관, 이재연 주무관, 이화여자대학교 성효현 교수, 한국지질자원연구원 한현철 책임연구원, 한국해양조사협회 최신희 본부장 일행을 파리시내 몽빠르나스 Traiteul Japonis에서 만나 지난 3일간 진행상황을 공유하고 향후 5일간의 일정을 설명함



## VI IOC 제28차 총회 결과 보고

### 회의 의 제

#### 1. 개회

#### 2. 회기 구성

- 2.1 의제 채택
- 2.2 서기 지정
- 2.3 회기 중 위원회 구성
- 2.4 안건, 회의 일정 및 기념강의 소개

#### 3. IOC 현황보고, IOC의 지역분과위원회 및 프로그램과 예산

- 3.1 IOC 현황에 대한 의장 보고
- 3.2 2014-2015년 프로그램과 예산 실행에 관한 사무총장 보고
- 3.3 IOC분과 위원회와 지역위원회 의장 보고
  - 3.3.1 IOC 서태평양분과위원회
    - 제10차 IOC/WESTPAC 총회, 2015년 5월 12-15일, 태국, 푸켓
  - 3.3.2 IOC 카리브해 및 주변지역분과위원회
    - 제13차 IOCARIBE 총회
  - 3.3.3 IOC 아프리카 및 주변지역분과위원회
    - 제3차 IOCAFRICA 총회, 2015년 4월 13-15일, 케냐, 나이로비
  - 3.3.4 IOC 지역위원회 회의 보고
- 3.4 2016-2017년 프로그램(안)과 예산(안) 소개
- 3.5 제38차 UNESCO 총회에 2014-2015년도 IOC활동 보고

#### 4. IOC의 미래

## 5. 해양연구

- 5.1 IOC 세계해양과학보고서(GOSR) 현황보고
- 5.2 WMO-IOC-ICSU 세계기후연구프로그램(WCRP) 보고 및 검토
- 5.3 제2차 국제인도양 탐사(50주년 기념)

## 6. 정책 평가 및 정보

- 6.1 UN 세계환경평가
- 6.2 대양수심도(GEBCO) 지침 및 규정개정안 수정위원회

## 7. 관측 시스템 및 데이터 관리

- 7.1 관측 시스템
  - 7.1.1 세계해양관측시스템(GOOS)
  - 7.1.2 WMO-ICSU-IOC-UNEP 세계기후관측시스템(GCOS)
  - 7.1.3 해양학 및 해양기상 합동기술위원회(JCOMM)
- 7.2 데이터 관리
  - 7.2.1 국제 해양학 데이터 및 정보 교류:  
제23회 IODE 총회, 2015년 3월 16-20일, 벨기에, 브루제

## 8. 조기경보 및 서비스

- 8.1 지역별 지진해일 경보 시스템
  - 8.1.1 태평양 지진해일 경보 및 저감시스템 정부간 협력그룹:  
제26차 IGC/PTWS 총회, 2015년 4월 22-24일, 미국, 하와이
  - 8.1.2 인도양 지진해일 경보 및 저감시스템 정부간 협력그룹:  
제10차 ICG/IOTWS 총회, 2015년 3월 24-26일, 오만, 무스카트
  - 8.1.3 카리브해 및 주변지역 지진해일 및 연안지역 위험 지진해일 조기경보 정부간 협력그룹(ICG/CARIBE) :  
제9차 ICG/CARIBE-EWS 총회, 2015년 4월 18-22일,  
네덜란드, 신트마르턴
  - 8.1.4 북동대서양, 지중해 와 그 관련지역 지진해일 저감시스템 정부간 협력그룹: 제11차 ICG-NEAMTWS 총회, 2014년 11월 12-14일,  
키프러스, 니코시아

8.2 해양 위험 대비를 위한 세계 협력 경보 및 저감시스템(TOWS-WG)

8.3 유해조류증대: 제12차 IPHAB 총회, 2015년 4월 28-30일, 파리, 유네스코

## 9. 역량강화

9.1 IOC역량강화전략을 위한 회기간 실무작업반 보고

## 10. 지속가능한 개발 및 행정

10.1 UN 협력

10.2 연안역 통합관리 프로그램(ICAM)

10.3 국제 극지방 협력 계획(IPPI)

## 11. 행정 및 관리

11.1 2016-2017년도 예산(안)에 관한 재정위원장의 보고

11.2 UNESCO의 정부간 조직 업무방식을 고려한 UN 합동 감시부의 권고에 따른 IOC의 자체평가

11.3 집행이사회 및 위원회 위원 선출

13.3.1 위원회 의장 선출

13.3.2 위원회 부의장 선출

13.3.3 집행이사회 위원 선출

11.4 제29차 총회 및 제49차 및 제50차 집행이사회 일시 및 장소 준비

## 12. 주요 보고서 및 결의안 채택

## 13. 폐회

## 1. 개 회

- 2015년 6월 18일(목) 오전 10시, 변상경 의장은 제28차 IOC 총회의 개회를 선언함
- UNESCO사무총장 Irina Bokova는 월드오션데이 행사에서 프랑스 수상이 언급 한 “숲과 바다는 지구의 두 허파”를 인용하고 RIO+20, SDG 등 최근 UN차원에서 중요시되는 정책목표들과 해양의 상관성을 적시 하면서 인류 공동의 과제 해결노력에 IOC의 역할이 막대함을 강조함
- 변 의장은 신임 IOC사무총장을 총회에 소개함
- 총회는 캐나다 IOC대표, 러시아 레브 칼린 교수, 영국 스코틀랜드해양연구소장, EURO-GOOS사무총장, 스페인 해양데이터관리센터장 등 그동안 해양과학과 IOC 발전에 헌신해오다 지난 1년 내 타계한 석학들을 기리며 묵념함

## 2. 회기구성

### 2.1. 의제채택

- 의장은 사무국이 제안한 의제(안)을 원안대로 채택함.
- 집행이사국과 의장단 입후보 마감일 6월 19일(금) 오후 6시임을 상기함

### 2.2. 서기지정

- 아르헨티나의 추천 및 브라질의 재청에 의해 Mr. Carlo Elisca S. CEROME(아이티)가 당차 회의 회의록 작성을 위한 서기로 지정됨

### 2.3. 회기중 위원회 구성

- 선거후보 지명위원회 (Nominations Committee)

- 위원장: Javier Valladares(아르헨티나, 전 IOC의장)
  - 간사: Thorkild Aarup
  - 위원국: 일본, 미국, 중국, 인도, 프랑스, 터키, 사우디, 스페인, 쿠바  
이집트, 불가리아, **한국**, 러시아, 영국
- 결의안 위원회(Resolutions Committee):
- 위원장: Terry Schaefer(미국)
  - 간사: Julian Barbière(IOC 사무국)
  - 위원국: 아르헨티나, 호주, 미국, 말레이시아, 프랑스, 인도, 중국, 터키,  
이란, 튀니지, 일본, 영국, 코트디부아르, 포르투갈, 그리스, **한국**,  
태국, 에콰도르
- 재정 위원회(Financial Committee):
- 위원장: Professor Peter M. Haugan(노르웨이)
  - 간사: Mr. Ksenia Yvincec(IOC 사무국)
  - 위원국: 호주, 스페인, 독일, 남아공, 캐나다, 미국, 일본, 러시아, 말레  
이시아, 영국, 코트디부아르, 중국, 벨기에, 브라질, 캐나다, 카메  
룬, 그리스, 인도, 프랑스, 터키, 포르투갈, 트리니다드토바고,  
**한국**, 모리셔스, 태국, 아르헨티나, 덴마크, 이집트
- 인도양공동조사계획 점검위원회(IIOE-2)
- 위원장: Sateech Shenoi(인도)
  - 간사: Nick D'Adamo
  - 위원국: open-ended
- GEBCO Review 실무작업반
- 위원장: Criag McLean(미국)

- 간사: Julian Barbière
- 위원국: 아르헨티나, 일본, 프랑스, 콜롬비아, 중국, 불가리아, 포르투갈, 튀니지, 터키, 캐나다, 영국, 호주, 스페인, 말레이시아, 러시아, 탄자니아, 아일랜드, **한국**, 영국, 인도, 모나코, IHO, GEBCO

○ 역량강화 실무작업반(IOC Capacity Building)

- 위원장: Adoté Blim Blivi(토고)
- 간사: Peter Pissierssens
- 위원국: 호주, 미국, 일본, 영국, 코트디부아르, 세네갈, 말레이, 모리셔스, 사우디아라비아, 독일, 남아공, 이집트, 케냐, 중국, 벨기에, 브라질, 카메룬, 프랑스, 인도, 나이지리아, 포르투갈, 트리니다드토바고, **한국**, 태국, 아르헨티나, 탄자니아

※ 집행이사회 시 상기 위원장 내정자는 가급적 많은 개발도상국 특히 모든 아프리카국 대표들이 본 작업반회의에 참여해줄 것을 희망하였음

○ IOC의 미래 전략구상 실무작업반(The Future of IOC)

- 위원장: Peter Haugan(노르웨이)
- 간사: Ksenia Yvinec
- 위원국: 덴마크, 미국, 일본, 영국, 세네갈, 쿠바, 스페인, 러시아, 독일, 알제리, 남아공, 아르헨티나, 호주, 에콰도르, 말레이시아, 모로코, 콜롬비아, 중국, 칠레, 캐나다, 브라질, 그리스, 프랑스, 핀란드, 인도네시아, 이란, 인도, 파키스탄, 필리핀, 포르투갈, 터키, 튀니지, 태국, **한국**, 이집트, 토고

※ 한국대표단은 계획한 대로 모든 위원회/작업반에 위원국으로 참가 등록 후 기구 내 주요 현안을 심층검토하기로 함

## 2.4. 회의일정과 회의자료 소개

- IOC 사무총장은 총회 일정소개에 앞서 6월 17일(수) 성공적으로 개최된 IOC해양과학의 날 행사결과를 요약·보고함
- 이에 대해 일본대표(Mr. Michida)는 IOC해양과학의 날 발표내용 중 차세대 해양관측기술 소개가 매우 유익했으나 초청연사가 모두 IOC 제1지역그룹(북미 및 유럽)출신 이었던바 차후에는 지리적 안배가 있기를 희망함
- 예산부족으로 휴식시간에 다과를 제공 못 하는 사무국을 대신하여 일본정부가 제공한 커피브레이크가 11:30~11:45에 있었음

## 3. 법정보고

### 3.1. 의장보고

- 변상경 의장은 자신이 의장으로 재직한 지난 4년간의 IOC역사를 회고하며 동 기간 중 회원국과 사무국의 협조에 사의를 표명함
- 지난 2년간 주요 사안 법정 보고
  - 2014-2021 IOC 전략계획 수립
  - IOC-WMO 양 기구 임원 상호교류방문 격년시행
  - 사무총장 교체 경과
  - 지역별 운용해양학회(2그룹 바르나 2012, 3그룹 리오 2013, 4그룹 방콕 2013, 5그룹 나이로비 2015) 등
- 아울러 지난 1년간 주요 출장실적을 소개함:
  - 2014.11.24.~25 인도네시아 지진해일참사 10주년 국제지진해일 조기경보 학회 개최

- 2015.04 아프리카지역총회 참석
- 2015.05.12.~15 서태평양지역총회 참석
- 2014 10 28 제4회 APEC해양장관회담(샤먼)
- 2014 해양정상회담(중국, 청도)
- 2015 5 22~24 무나카타 에코100 포럼(무나카타)
- 2015 2 동경대 해양연 국제협력센터 설립10주년 기념식
- 2014 10 23~24 여수국제해양포럼

○ IOC미래에 대한 조언;

- UNESCO에서 기능적으로 분리된 기구인바 차별성과 책임감을 지녀야 함
- IOC의 시작은 국제해양과학연구협력이었으나 회원국 당면 과제 해결을 위해 해양예보서비스 및 기후해양변화 예측서비스에 중점을 두어야 함
- 해양과학기술분야에서 앞선 회원국들은 아프리카, 태도국의 지속가능한 해양개발을 도와야 함

○ 의장보고 후 중국대표는 자신이 IOC참석이 처음인데 기구 전반에 대해 잘 설명해주신 점, 그리고 최근 중국에서 열린 2개의 해양행사에 참석해 주신 점에 대해 감사를 표함

○ 프랑스는 중국발언에 공감하며, 지구시스템에서 바다의 중요성은 물론 해양산성화로 인한 생물종 멸종으로부터 프랑스 국민을 지키기 위해 IOC에 지속참여 및 기여할 것을 약속함

○ 일본은 의장이 참석한 무나카타 포럼이 차세대를 해양에 참여시킨다는 점에서 중요하므로 앞으로도 계속 참여해줄 것을 요청함

○ 한국은 한국이 지원한 세계지역별 운용해양포럼에서 보인 의장의 지도력을 평가하며 지속적인 지원을 시사함



- 토고는 해양관측역량이 부족한 아프리카 국가들에게 의장이 주도한 아프리카-서태평양지역 연계가 유익했다고 평가하면서 아울러 바다에서 가장 중요한 조건은 인간의 안전이므로 아프리카 해상안전 포럼에 대한 관심과 참여를 요청함
- 이란은 자국이 IOC와 연계하여 추진 중인 지역교육훈련과정 개최 계획을 홍보함
- 파키스탄은 개도국의 운용해양학역량강화 사업의 지속강화를 희망함

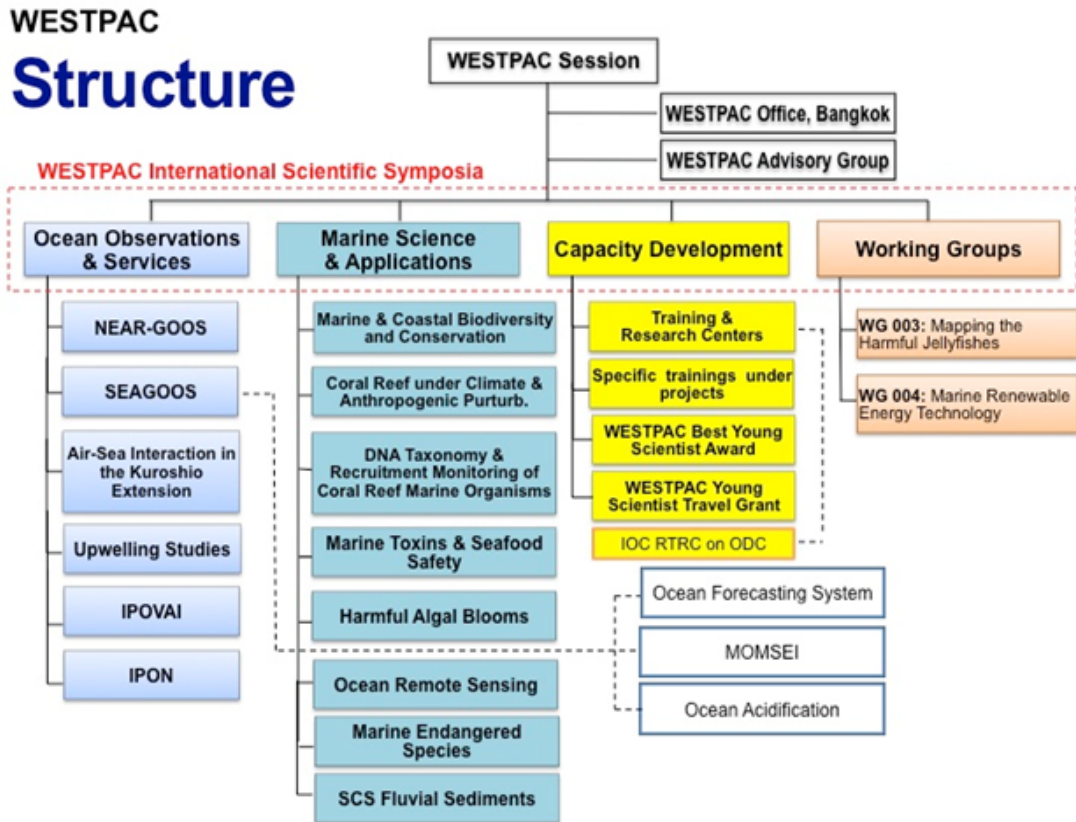
### 3.2. 사무총장 (실적 및 결산) 보고

- 사무총장은 IOC의 본령을 아래와 같이 분류·정의하며, Blue Carbon, 해양생태 시계열조사, SCOR와의 협력, GESAMP와 마이크로플라스틱 협력, 적조 특히 시구아테라를 향후 신지평으로 전망함
  - 해양과학연구
  - 해양관측 및 데이터공유
  - 운용해양학적 예보서비스
  - 정책입안자를 위한 지식정보 제공
  - 지속가능개발거버넌스
  - 역량강화
- 지난 2년간 59개 주요 사업 집행결과를 보고함
- 이에 대하여 세이셸군도, 콜롬비아 등 개도국들은 IOC사업 중 개도국 해양과학 역량강화사업에 많은 관심을 보임
- 세네갈, 케냐, 알제리, 탄자니아 등 아프리카 국가들은 기반이 취약한 신생IOCAFRICA에 대한 지원을 요청하였고, 토고는 신임 사무총장에게 IOC 거버넌스 정책 공개를 요구함

- 선진국들은 주로 자신들의 IOC 참여정당화 논리를 펴는 경우가 많았음
- 스페인 경제상황 매우 안 좋으나 과학기술 특히 해양과학은 중요하므로 참여와 기여 계속할 것이라고 피력함
- 독일은 IOC가 규모여건에 비해 너무 많은 사업을 진행하고 있다며 과부하가 걸리지 않게 속도조절을 당부함
- 노르웨이는 IODE 사무국의 벨기에 플랑다스 이전 10주년을 맞아 새로운 도약을 기대하면서 IOC과학의 날 강연 중 해양과 보건을 신지평으로 평가함
- 인도, 중국, 러시아 등은 발언기회를 자국의 실적/현황/계획 홍보채널로 활용함
- 칠레, 그라나다 등 중남미 국가들은 지진해일 등 해양재해에 대한 운용해양학적 조기경보가 중요함을 매년 강조하면서 IOCARIBE 사무국 지원을 요청함
- 쿠바는 보다 더욱 합리적인 예산집행을 주문함
- IHO는 GEBCO 성과도출과정에서 약 80%의 기여도를 갖는 IOC가 우수인력을 GEBCO에 배정해준 덕에 세계해저지형도 2014년판이 무사히 발간되었음을 알리면서 이 같은 발전을 지속하기 위하여 신진양성이 중요하다고 주장함. 앞으로 지진해일 예측취지에서 천해해저지형 조사에 힘쓸 계획임을 시사함
- 한국은 신임 사무총장이 점증하는 국제사회의 기대치와 반대로 척박한 예산 현실 사이에서 묘수를 발휘하여 글로벌 해양이슈 해결과 해양을 통한 지상문제의 해결에 앞장서주길 바라다고 표함. 또한 글로벌 이슈의 해결은 지역단위부터 시작되어야 하므로, IOC 지역분과위원회와 긴밀히 소통하여 사회적 요구를 해결할 신사업을 공동기획하고 재원을 발굴하기를 권고함. 이러한 글로벌 문제해결방식의 한 블록으로서 가치를 갖는 WESTPAC에 대한 지원을 지속할 것을 약속함

### 3.3.1 IOC 서태평양지역 소위원회(WESTPAC)

- WESTPAC의장 Somkiat Khokiattiwong은 신규 사업 추진주체 신설 등 개편된 조직을 소개하면서 그에 따른 주요 실적을 보고함



- 이에 대해 말레이시아는 산호초밀집삼각해역의 생태적 가치와 그와 관련한 WESTPAC 활동에 대해 높이 평가함.
- 일본은 WESTPAC을 글로벌 이니셔티브의 지역단위 구현으로 정의 하면서 신탁기금사업 등 일본의 WESTPAC참여기여실적을 홍보함
- WESTPAC 부의장 이윤호 박사는 WESTPAC 회원국을 대상으로 하는 산호초밀집삼각해역 서식생물 종 다양성 연구역량강화사업 (DRMREEF) 의 성공적 수행에 도움을 준 관계자의 노고를 치하함

### 3.3.2 IOC 카리브지역 소위원회(IOCARIBE)

- IOCARIBE의장은 카리브해와 멕시코만 해저지형도(IBCBA) 발간을 보고 하면서 본격적인 가동을 위해서는 사무총장과 직원의 채용이 필수 적이나 오랫동안 그렇지 못했던 점을 상기시키면서 지원을 촉구함

### 3.3.3 IOC 아프리카지역 소위원회(IOCAFRICA)

- IOCAFRICA의장 Dr. Monde Mayekiso는 지난 2년간의 실적내용을 발표하며, 한국정부가 IOCAFRICA 제1~2차 총회 및 2015년 4월 한-아프리카 포럼 개최를 지원하여 준 데 대하여 사의를 표명하였음. 남아공, 탄자니아도 이에 대한 감사의 뜻을 포함

### 3.3.4. IOC 지역 간 회의결과

- 변상경 의장은 본 총회가 집약적 효율적으로 진행되고 정해진 일정대로 마쳐지도록 회원국 대표단에게 공식발언 시 의례적인 감사의 말의 반복을 지양할 것을 요청함
- 중남미국가 대표들은 지진해일 조기경보 및 그와 관련한 IOCARIBE 역할의 중요성을 역설함
- GEBCO대표는 향후 (지진해일 조기경보 생산의 재료가 되는 해저지형정보 분야에 있어) IOCARIBE 지원을 지속할 의지를 포함

## 3.5. 제 38차 UNESCO총회

- 사무총장은 2015년 11월 개최될 제38차 UNESCO총회에 제출할 2014-2015 2년간의 IOC실적자료(안)을 제출함
- 포르투갈 의견에 따라 당차총회 지적사항을 반영한 후 의장단과 협의·수정하여 확정제출하기로 함

#### 4. IOC의 미래 (The Future of IOC)

- 동 실무작업반 의장 Prof. Peter Haugan(노르웨이)가 보고서 현 상태를 보고함
- 한국은 지난 4년간 Future of IOC의 맥락에 부합하는 포럼을 동구유럽, 중남미, 동남아시아, 아프리카에서 연차 개최하여 온 것을 홍보하고 Post-2015 또는 SDG에 부합하는 해양과학기술이전에 노력할 것을 권함.

#### 5. 해양과학

##### 5.1. 세계해양과학보고서(GOSR, Global Ocean Science Report)

- 사무국 해양과학부 Luis Valdés는 작성경과를 보고하고 향후 회원국 의견을 받아 2016년 말 완성할 계획임을 보고함
- 동 업무수행을 위하여 한국정부가 전문인력(KIMST 배성환 박사)를 파견 해준 사실을 소개함
- 영국의 경우 해양과학연구 상당부분을 정부공공기관이 아닌 민간기업이 수행하고 있어 정부주도의 현황정보 취합이 쉽지않음
- 한국은 UNESCO의 권고에 따라 설치운영중인 NOC(KOC)채널이 GOSR 정보취합에 매우 유용하게 활용되었음을 발표함
- 미국은 WESTPAC이 활발하게 운영되고 있는 비결이 역내 해양문제가 잘 파악되어 있음에 비추어 이 모델을 아프리카 같은 지역에 적용하기 위해서는 GOSR이 매우 유용하리라고 평가함
- 캐나다는 인턴을 6개월 파견하여 GOSR작성업무 지원예정
- 독일은 GOSR에 배정된 예산을 문의함
- Luis Baldés는 한국, PICES 등이 지원해주고 있어 IOC예산소요가 많지 않고 Seed money정도만 소요된다고 답함

## 5.2. 세계기후연구 프로그램(WCRP, WMO-IOC-ICSU World Climate Research Programme)

- IOC, ICSU, WMO의 공동 세계기후연구프로그램
  - 입체[성층권, 육지(강수량), 해빙(탄소 등), 해양 등]데이터 취합집산
  - 모델수치 교차비교검증 프로젝트(CMIPs)
  - 신진 기후학자 네트워크를 위한 여름학교
- 해양모델링, 해양관측기술, 해수면에 대한 공동관심분야 활동 보고
- 시간관계상 질문만 받고 국가발언(intervention)은 6월 22일로 연기함
- 발언예정 한국 발언문: 한국은 기후변화의 중요성을 인식하고 국제 공동대응을 위한 WCRP를 지지함. 한국 기상청은 영국 기상청과 CMIP6사업에 참여하여 IPCC-AR6에 기여할 예정. 향후 WCRP-IOC공동 프로젝트에도 적극 동참할 것임

## 5.3. 제2차 국제인도양 탐사(IIOE-2, Second International Indian Ocean Expedition)

- 제2차 국제공동 인도양 탐사 기획위원회(IPC) 위원장 Satheesh Shenoi는 IIOE-1 역사 및 IIOE-2 추진배경(제47차 IOC 집행이사회 결의 “IIOE-2를 위한 SCOR-IOC-IOGOOS공동 임시계획위원회”)을 소개함
- SCOR의장 Peter Burkill은 IIOE-2플랜에 대해 발표함
  - 인도양의 물리역학에 따른 기후, 극한자연현상, 해양생지화학적 순환, 생태계, 인구 미치는 영향 규명이 목적
  - 6개 테마 선정: “인류기원 스트레스 영향”, “경계류 역학, 용승류 변동의 생태계 영향”, “몬순 변동성 및 생태계 반응”, “순환기후 변동성/변

화”, “극한기후와 생태계 및 인구에 대한 충격”, “인도양의 독특한 현상들”

- Satheesh Shenoi는 IIOE-2관련 IPC권고 내용을 소개함
  - 2015년 11월 29일~12월 4일, 인도 Goa에서 “인도양 역학심포지움”을 개최하고, 마지막날 IIOE-2를 공식 발족시켜 2020년까지 수행
  - IIOE-2 수행을 위한 7개 워킹그룹(과학연구, 자료 및 정보 관리, 역량 개발, 운영 조정, 지원 및 소통, 사회를 위한 과학 번역, 자원과 후원) 조직
- 호주-인도-이란-태국, 결의안XXVIII/DR.(5.3) 제출하여 채택됨
  - SCOR측 계획
  - IPC리포트 및 거버넌스 구조 권고
  - IIOE-2시행기간

## 6. 정책평가 및 정보

### 6.1. WOA, TWAP, IPBES

- Julian Barbière는 WOA TWAP IPBES를 소개하면서 IOC의 기여(AoA 당시 수행, 평가에 필요한 기초자료/참고문헌 생산, 지역네트워크 제공 등)를 상기시킴
- 아르헨티나는 TWAP인디케이터 설정에 회원국 의견반영 필요 주장함
- 사우디는 걸프만과 홍해를 WOA에 포함시켜줄 것을 요청함
- 한국과 인도는 자국의 WOA참여경과를 소개하면서 참여사실을 홍보함
- 토고는 WOA가 아프리카지역에서는 거의 알려지지 않았음과 아프리카 역내 transboundary lagoon접안국가간 공조사례 소개함

- 코트디부아는 WOA인디케이터에 대한 합의에 이르지 못 함을 지적함. 해양정보는 WOA의 전제조건인 데 충분치 않은 문제를 해결위해서는 WOA에 대한 필요성 인식이 필요함을 지적함

## 6.2. GEBCO 운영위원회 규정 및 지침 개정

- IOC사무국 Julian Barbière는 GGC 규정 개정(안) 추진배경과 경과를 보고함
  - 지난 1년간(intersessionally) 국별 의견 취합조정 함
  - 당차 총회 중(sessionally) 8개국의 추가 검토 요망
- IHO는 해저에 대한 인류의 무지를 극복하기 위한 백년노력(1903년부터) 이 실효를 거두기 위해서는 보다 신속한 의사결정 즉 양 母기구의 적절한 개입레벨 정립이 필요하다고 주장하면서 본 안건의 가결을 희망함. 가결될 경우 올10월 쿠알라룸푸르 GGC회의부터 적용됨을 공지함
- 회기 중 실무작업반 의장은 회기 중 추가로 검토된 조항을 보고함
  - TOR 1.4. GGC특별(임기/임명제)옵저버 신설
  - TOR 9. GEBCO산하단위 개폐 전결권
  - TOR 1.6. GGC외부전문가초청 위원장직권화
  - TOR 1.10. GGC회의록 공개의무 삭제
- 캐나다: TOR 1.4 삭제 제안함. GEBCO운영에는 양 母기구가 모두 필요함을 강조함. GEBCO에 계속 참여·기여할 것임
- 아르헨티나: IOC의 GEBCO기여도가 80%임을 상기시키며 co-leadership을 강조함. IIOE2시 해저지형조사도 병행할 것을 요청함
- 콜롬비아: 데이터소유국가 허가없이 타 국, 특히 기업 사용제한을 요구함



- 칠레: 오션매핑과 GEBCO의 필요성을 강조함
- 러시아: GEBCO의 필요성을 강조하면서 인도양조사시 참여의사를 밝힘
- 호주: 개정안에 찬성함
- 프랑스: 캐나다 의견 (TOR 1.4항 삭제)에 동의함
- 독일: 캐나다 의견 (TOR 1.4항 삭제)에 동의함
- 일본: TOR 9 및 1.4 필요하니 원안대로 가결해주기를 바람.
- 영국: 캐나다 의견 (TOR 1.4항 삭제)에 동의함
- 코트디부아: 해저지형도 제작에는 원격탐사전문가가 필요하다는 점에서 ROP 1.6필요성을 지지함
- 중국: 양 기구 공동운영 프로젝트로서 IOC개입이 중요하므로 캐나다 의견 (TOR 1.4항 삭제)에 동의함
- 인도: GEBCO가 IIOE2에 참여하기를 바람
- 포르투갈: 캐나다 의견 (TOR 1.4항 삭제)에 동의함. 양 기구 공동운영이 통시적-전지구적-학제적 매핑에 긴요함
- 남아공: Co-leadership 지지함. 동아프리카 해역에 관심을 촉구함
- 터키: 지중해 연구관련 GEBCO성과물이 도움되었음을 소개하면서 지속적 참여기여 의사를 밝힘. 캐나다 의견 (TOR 1.4항 삭제)에 동의함
- 한국: 캐나다 의견 (TOR 1.4항 삭제)에 동의함
- McLean(WG 의장): 다수의견에 따라 TOR 타 조항과 중복성있는 1.4조항 삭제 후 가결을 제안하면서 일본의견을 문의함
- 일본: 중의를 따르겠음

- McLean(WG 의장): TOR 1.6 추가논의시 많은 고민과 진통이 있었음을 고백하면서 지난 1년간(Intersessionally) 수정한 안을 회기 중(sessionally) 재수정하여 본회에서 합의한 안을 최종안으로 채택함
  - TOR 1.4 (임기/임명제 GGC옵저버 신설) 삭제
  - TOR 9. (GEBCO산하단위 개폐 전결권) 의장권한 제한문구 추가
  - TOR 1.6.(GGC외부전문가초청 위원장직권화)에서 위원장을 위원회로 수정
  - TOR 1.10. 삭제 취소 (GGC회의자료 공개의무 유지)
- IHO는 개정안 가결을 환영함
- 이후 결정문상 Bathymetry를 Ocean mapping으로 바꾸자는 제안에 대한 논쟁이 있었음
  - GEBCO의 본령은 해저임
  - Bathymetry는 측심에 국한
  - GEBCO는 측심이상을 다룸
- GEBCO거버넌스 리뷰그룹 설치운영(안)
  - 호주: 설치운영 찬성
  - 포르투갈: GEBCO는 프로그램 아니고 위원회임
  - 브라질: IOC지분축소 반대
  - 일본: GEBCO는 해양학적으로 특히 지진해일 진로예측에 주요함으로 IOC역할 기여확대방안 모색하는 노력 지지
  - 중국: 지역대표자 포함시키자고 제안함

- 아르헨티나: 공동의장 전문가 지원하겠음
- 가결

## 7. 관측 시스템 및 데이터 관리

### 7.1.1. 세계해양관측시스템(GOOS, Global Ocean Observing System)

### 7.1.2. 세계기후관측 시스템(GCOS, Global Climate Observing System)

#### ○ 개요

- 참여기구: WMO, ICSU, UNEP, IOC 공동
- 유관 프로그램: IOC의 GOOS, FAO의 GTOS (Global Terrestrial Observing System)와 WMO의 GOS(Global Observing System) 및 GAW(Global Atmosphere Watch)

#### ○ 2015년 3대 목표

- 신규 포착된 기후변화 변수에 대한 검증
- 이와 관련한 연구를 지원하기 위한 관측 요구 및 미비점 포착
- 데이터생산자와 사용자에게 기술 가이드스 제공

### 7.1.3. 해양학 및 해양기상 합동기술위원회(JCOMM, Joint WMO-IOC Technical Commission for Oceanography and Marine Meteorology)

- 해양PT의장 Nadia Pinardi는 제4차 JCOMM총회(여수, 2012)이후 실적을 보고함
- JCOMM 2013-2016전략(안)승인 필
- JCOMM은 여전히 해양관측의 부족에 시달리고 있음. 특히 원격탐사, ARGO 플로트, OceanSITE, VOS, 표류부이에 지속적인 투자가 필요함

- 역량강화
  - WMO교육훈련, OceanTeacher Global Academy를 추진중
  - 해양관측, 해양서비스, 자료활용 분야 훈련 고려중
- 중국 RMICs(해양측기센터)설립후 RAI지역 3번째 RMICs가 카사블랑카에 설립될 예정임.
- WIS-ODP자료교환 파일럿프로젝트인 WIGOS에 관심 요청
- 현업 해양예보시스템 가이드스 마련위한 ETOOFS의 활발한 활동에 감사를 포함.
- 중국국가해양국 NMDIS(National Marine Data and Information Service)는 CMOCs(Centers for Marine-Meteorological and Oceanographic Climate Data) 텐진 유치 제안 → 제17차 WMO 총회와 제28차 IOC 총회에서 각각 승인됨.
- 향후 수요자중심의 해양서비스 개발, IOC회원국의 적극적 참여, 실시간 해양자료 수집을 지속할 것임
- 한국, 뉴질랜드, 호주, 미국, 일본은 중국CMOC을 지지하고 발전을 기원함
- Nadia Pinardi:
  - 각국의 의견을 반영하여 지속가능 해양시스템 구축하겠음.
  - 새로운 해양관측시스템(글라이더, 부이)에 대하여서는 11월 운영위원회에서 각국 의견을 반영하겠음
- 한국(유승협)발언:
  - 해양관측기기 표준화 및 능력배양의 노력을 환영함
  - 중국CMOCs와 모르코RMICs의 제안을 환영함

- 해양기술 공유활동에 활발하게 참여할 것을 약속함
- JCOMM역량강화사업 관련제안: 한국기상청에서는 매년 ICT, ODA, KOICA 과정을 통해 동남아, 아프리카 기상전문가들에게 기상 및 해양 기상예측모델, 현업 시스템 구축 사례, 리눅스 사용 등의 교육을 실시 중인데 피교육자들의 공통되는 수요는 해류, 파랑, 폭풍해일 예보를 위한 현업 해양기상예측시스템 관련 지식인 바 해양기상 정밀예측 시스템 보유국들이 개도국 특성에 맞는 현업예측시스템 능력배양

## 7.2. 해양관측데이터

### 7.2.1 국제 해양자료 및 정보 교환위원회(IODE, International Oceanographic Data and Information Exchange)

- 공동의장 Cyndy Chandler의 국제 해양자료정보 교환위원회 2015.3.17~20 브뤼셀회의 결과 5개 사안 의결
  - ODINBlackSea
  - Ocean Expert Project 설립
  - international quality controlled ocean database 프로젝트화
  - OBIS-ENV-DATA
  - 2015~2017 계획 및 예산안
- IODE Ostend사무소(2005~) 10주년(2015.3.16.)
  - 위원회는 현재의 재정위기가 지속되고 있음에도 불구하고 자료/정보 관리에 대한 수요는 증가하고 있음을 고려하여 IODE 프로그램의 미래에 대해 주목하였음.
  - 자료/정보 수요증가에 대응하기 위해 2013~2015간 80개국 해양자료 센터를 보완하는 ADU 14개 설립하였음.

- 위원회는 IODE의 미래에 대해 폭넓은 논의를 하였고, IODE 구조조정을 제안하기 위한 회기간 워킹그룹을 설립하였음.
- 지역레벨에서는 해양자료/정보네트워크(ODIN)가 자료/정보관리 요소를 갖거나 자료/정보관리 전문지식을 필요로 하는 진행 중인 프로젝트와 연계시키기로 함
- 전지구적 활동과 관련하여, 모든 활동들을 특정 위임사항과 관리 체계를 갖는 프로젝트들로 간소화함
- 이에 더해 기존 16개 전 지구 프로젝트와 관련하여, 1개의 프로젝트를 종료시키고 2개의 새로운 프로젝트 설립을 권고하였음.
- OBIS와 GOOS Biology를 위해 한개의 P-3직위가 마련되었으므로 IODE와 GOOS가 더욱 긴밀하게 협업할 수 있을 것임.

○ 검토/평가의견

- 신임의장 (Ms. Cyndy Chandler와 Prof. Yutaka Michida)의 리더십과 회원국의 적극적인 참여를 통해 IODE발전을 기대함
- IODE 23차 회의를 통해 파악된 IODE의 약점과 이를 해결하기 위해 제안된 여러 방안들을 지지함
- 한국은 사무소 10주년을 축하하고 벨기에정부와 Peter pissierssens IODE사무소장, 지난 4년간 IODE공동의장으로 IODE 변화를 이끌어 온 Ms. Sissy Iona와 Mr. Ariel Troisi의 노고에 감사드리며 신임 Cyndy Chandler / Yutaka Michida의장 지도하에 발전을 양망함. 더불어 IODE 23차 회의를 통해 파악된 IODE의 약점과 이를 해결하기 위해 제안된 여러 방안들을 지지하고, 대한민국은 앞으로도 IODE 활동을 적극적으로 지원해 나갈 계획을 발언함.
- 일본은 1960부터 IODE에 참여했음을 상기시키며 IODE가 해양과학 관련 새로운 필요성/요구 들을 만족시켜야 할 의무를 주지함

## ○ 총회 결정

- 예산, 워크플랜내에서 전지구와 지역 활동간의 균형과, Ocean Teacher Global Academy를 이용한 역량개발을 환영함
- IODE사무소를 지원을 해주고 있는 벨기에 정부와 Obsninsk IODE해양 자료포털(ODP)파트너십센터를 유치지원하는 러시아, IODE에 재정지원/현물공여를 해주는 회원국/기관에 감사함
- 2015년 3월 OBIS (GOOS Biology와 공유된)를 위한 한개 정규프로그램 직위를 마련해준 UNESCO에 감사함
- IODE자료센터들을 설립하고 운영하여 IODE 프로그램에 지원을 하고, 전문가 기여 및 귀중한 해양자료/정보 서비스와 더불어 IOC에 재정적 지원 및 현물공여를 해주고 있는 회원국들에게 감사함
- IODE와 OBIS를 위한 IOC 특별 계좌에 현금 기부를 한다든지, IODE 프로젝트 사무소에 직원 파견, 회의 및 워크숍을 유치하는 것과 같은 현물지원, IODE파트너십센터 설립이나 OceanTeacher 지역훈련센터 설립, IODE와 OBIS에 대한 재정지원, 또는 국가해양자료센터 설립 등을 통해 IODE 워크플랜을 지원하도록 촉구함

## 8. 연안재해 조기경보

## 8.1. 지진해일 경보체제(ICG, Intergovernmental Coordination Group for the Pacific Tsunami Warning and Mitigation System)

## 8.1.1 태평양 지진해일 경보 및 저감시스템(ICG/PTWS)

- 제 26차 ICG/PTWS심포지엄이 2015.4.22~24., 하와이에서 개최됨
  - 28개국 106명 참석
  - ICG는 북서태평양 지진해일 대응위한 Northwest Pacific Tsunami Advisory Center를 설립하기로 함

- 지진해일 탐지-경고-전달, NWPTAC의 피드백을 위한 Task Team 설치
- 중앙아메리카의 지진해일 경보를 위한 CATAC(Tsunami Advisory Center for Central America)의 운영을 승인함
- TSPs(Tsunami Service Providers), NTWCs(National Tsunami Warning Centers)의 활동을 모니터링 하기 위한 조정위원회 운영을 승인함
- 27차 ICG/PTWS는 프랑스 혹은 파나마에서 개최 예정
- Filomena Nelson(사모아)를 의장, Tomoaki Ozaki(일본), Tatiana Ivelskays(러시아)와 Rick Bailey(호주)를 2017년까지의 임기로 부의장으로 선출함
- 한국 (기상청 유승협 사무관)은 기상청을 중심으로 한반도 주변해역에서 발생하는 지진해일뿐만 아니라 태평양에서 발생하여 한반도에 영향을 미치는 대규모 지진해일에 대비하기 위한 연구를 수행 중에 있다고 설명함. 특히 FVCOM 모델과 같은 최신의 unstructure grid 모델을 활용하여 태평양 해역에서 지진발생시 지진해일을 예측할 수 있는 시스템을 개발 중에 있으며 16년 말에 개발을 완료할 예정임을 보고함. 이에 지진해일에 영향을 받는 각 나라가 효과적으로 지진해일에 대비하고 경보시스템을 개발하기 위해 시스템 구축 및 운영에 대한 경험과 노하우를 공유하는 것이 요구되며, 필요하다면 태평양의 지진해일에 의해 피해를 받는 다른 나라를 대상으로 예측시스템에서 산출되는 지진해일 예측결과를 제공할 수 있다고 발언함

### 8.1.2. 인도양 지진해일 정보 및 저감시스템(ICG/IOTWS)

- IOTWS 의장 Srinivasa Tummala은 동 그룹의 현황에 대해 발표함. 동 그룹은 지진해일 정보 및 저감시스템관련 지침서와 지도를 발간하였고, 지진해일 저감시스템을 위한 지역 훈련 및 7번의 워크숍을 개최하였음을 보고함.
- 동 그룹은 2개의 시나리오를 성공적으로 수행함(1번째 시나리오는 파키스탄에서 24회원국 참여로 개최됨). 동 시나리오를 통해 95%의 국가차원의 서비스와 75%의 지역 서비스가 제공됨을 확인함.



- 인도양 지진해일 기념을 위한 제10차 국제회의를 개최함. 동 국제회의를 통해 지속적인 관리와 재정적인 지원이 필요함을 인지함. 정부 간 협력의 중요성을 인지하고, 지속적이고 적극적인 협력을 위한 방안을 모색할 것을 다짐함.

### 8.1.3. 카리브해 및 주변지역 지진해일 경보 및 저감시스템 (ICG/CARIBE-EWS)

- CARIBE-EWS 의장 Hillebrandt Andrade는 CARIBE-EWS의 현황에 대해 보고함. 동 그룹은 2016년 콜롬비아, 2017년 코스타리카에서 지진해일 관련 회의를 개최할 것을 보고함. CARIBE-EWS는 US PTWC (하와이)를 통해 지속적으로 정보를 제공받음. 지난 10년 동안 지진해일관련 관측기술이 향상되었고, 이로 인해 지진해일 예상시간이 2004년에서 10분에서 현재 5분으로 단축됨. US NWS Caribbean Tsunami Warning Program이 2010년에 설립됨. 지진해일 발생시, 대피 장소 지도가 발간됨을 보고함. 정기 지진해일 비상훈련을 시행함. 2013년 Caribbean Tsunami Information Center설립.

### 8.1.4. 동북대서양, 지중해와 그 관련지역 지진해일 저감시스템(ICG/NEAMTWS)

- NEAMTWS 의장 Dr. Ahmet Yalciner는 회기동안 그룹의 성과와 결과에 대해 보고함. 제11차 ICG/NEAMTWS 총회가 2014년 11월 사이프러스에서 개최됨. 동 총회에서 Task Team을 설립하여, 지진해일 시스템의 이행 및 개발을 추구하고자함. 2014년 10월 비상시 대처해야 할 과정을 검토하기 위해 NEAMTWS의 지진해일 비상훈련 시행 함. 지진해일관련 교육훈련의 필요성과, 역량강화의 필요성이 제기됨.

## 8.2 해양위험대비를 위한 세계합동 경보 및 저감시스템 (TWOS-WG)

- 그룹의장 Yutaka Michida의 실적현황 보고

- 2015년 제3회 Sendai Framework for DRR회의 개최
- CARIBE-EWS, IOTWS, NEMTWS의 10주년 기념 기념책자 및 TOWS-WG 50주년 기념 기념책자 발간
- 제8차 TOWS-WG회의에서 4개의 하위조직의 보고서를 발표함.
- CTBTO, GEBCO와 협력하여 보고서를 작성하였음을 발표
- 지진해일 관련 GEBCO의 중요성 강조
- 그룹 예산부족 토로
- 총회 평가의견
  - 일본: 지진해일 시스템의 향상과 개발에 대한 노력을 계속 할 것임
  - 중국: 중국에서 지진해일 관련 회의를 개최하였고 앞으로도 역내에서 회원국들의 협력을 위해 중국이 기여할 것임. IOC 및 타 회원국도 지속적인 지원을 요구함.

### 8.3 유해조류증대(IPHAB, Intergovernmental Panel on Harmful Algal Blooms)

- IPHAB 의장 Gires Usup은 2015년 4월 파리에서 제12차 IPHAB 총회 개최
- 의장단 교체(신임 2015-2017 의장은 말레이시아 출신)
- Scientific Summary for Policy Makers 발간
- 회원국에게 적극적 데이터 공유 등 후원 요청
- 아프리카 HAB 프로그램을 위하여 2014년 오만에서 회의
- Task Force는 담수 및 HABS의 지침서 작성 및 교정을 돕고, WHO와 FAO의 협력을 도모하며 적조학자들과 적조모델러간 공조체제 개발예정임

## 9. 역량강화 (Capacity Building)

### ○ 작업반장 Adoté Blim Blivi(토고)가 수립경과 보고함

- 추진근거: Rio+20
- 17개국이 참여하여 SWOT분석, 사업목표, 기대효과 등 사업계획서(안) 작성
- 5대 대상 분야 설정:
  - 해양과학연구역량
  - 연안재해 예경보 역량
  - 지속가능개발위한 거버넌스 기획운영역량
  - 과학기반 해양정책 수립위한 해양평가 역량
  - 해양관측 및 관측데이터관리 역량
- 향후 CB실시할 때 GOSR이 많은 도움이 될 것임

### ○ 회원국 검토의견

- 인도는 제출된 내용중에서도 특히 해양관측 모델 예·경보 거버넌스 분야 역량강화사업을 환영한다면서 인도의 해양과학교육훈련과정 등 자국의 역량강화 노력을 홍보함.
- 파키스탄은 제출된 사업계획을 지지하며 적극 참여하고자 함
- 베트남은 교육훈련과정 자체만으로는 연구역량이 제고되지 않으므로 IOC산하 실무 프로그램 단위의 고려가 필요함
- 미국은 역량 차이를 정확히 포착하는 것이 실효적인 역량강화사업의 전제조건이라고 지적함
- 한국(김현영)은 본안이 IOC High Level Objectives, UN SDG와도 부합하며, 현재 GOSR이 제작 중이므로 몇몇 취약점을 보완한다면 성공할 것으로 믿는다며, 한국은 타 IOC 회원국들과 함께 예산을 지원할 것

을 시사함. 또한 여수프로젝트 2기(2015.10~)를 기장비조달, 시스템구축, 교육훈련, 정책컨설팅 원조에 활용할 것을 권장함

- Blivi 작업반장은 좋은 사업계획이란 구상한 프레임워크가 각각의 요소, 자원, 사업, 지역간 시너지를 도출하기 용이한가에 달려있다는 소신을 피력함

## 10. 지속가능개발 거버넌스

### 10.1. 타 UN기구와의 협력

#### ○ SDG

- IOC포함 20개 기구 참여한 결과, 해양이슈가 포함됨(제14번 목표하에 69개 글로벌/리저널/인터내셔널 타겟)
- IOC는 DOALOS, 피지, 한국 등이 주최하는 태도국 해양과학역량강화 대회 참가 예정
- 각국 통계청이 참여하는 SDG달성여부판정기준 설정(~2016.3) 안내함

#### ○ UN-OCEANS

- 해양과 관련된 22개 UN 기구간 협의체(간사: DOALOS)
- 주 운영목적: 해양정보의 기구간 공유(연1회)

#### ○ 사모아 패쓰웨이

- SIDS역량강화위한 IOC사이드이벤트 개최

#### ○ ABNJ & BBNJ

- IOC는 주로 관련정보(OBIS) 제공형태로 기여 중
- ABNJ기획위(2016~2017) 및 정부간회의(2018 TBD)에도 참여 예정

## ○ UNFCCC

- COP-21중 IOC주관 사이드이벤트 개최하였음
- ICES, PICES와 공동개최한 제 3회 기후해양변화심포지움(브라질 산토스, 2015.2.), WOD-2015행사, 프랑스정부의 Our Common Future학회 개최후원도 UNFCCC참여의 맥락으로 볼 수 있음

## 10.2. 연안역 통합관리 프로그램(ICAM, Integrated Coastal Area Management Strategy)

## ○ Julian Barbière(IOC 사무국)

- SPINCAM프로젝트: 과학적 사실에 기반한 정책참고자료를 제공
- GEF UNESCO UNDP NOAA ICES IUCN 공동 LME Learn 소개함
- IOC도 ICAM/MSP 데이터와 tools (ie. Marine Planning Guidelines 등) 및 CB분야(ie. Ocean Teacher Global Academy etc)에서 기여확대 예정임을 밝힘

## ○ 토고:

- 남아프리카 역량강화 행사에 영어가 모국어인 국가 위주였는바, 타국어 채택국가로 확대바람.
- 아프리카 대표적LME프로젝트인 기니만 통합관리사업에 대한 피드백 바람.
- 맹그로브지역 통합관리의 중요성을 강조함

## ○ 인도: 지속가능한 연안개발위해 최근 원격탐사, 연안모델링 활성화 착수했음을 홍보함.

## ○ GEBCO: GGC의 동태평양 남부해역 매핑사업(IBCFCE)을 소개하면서 지속적 업그레이드 필요성을 강조함

- CPPS: 폴란다가 지방정부의 SPINCAM 지원에 감사드립니다.

### 10.3. 국제 극지방 협력 계획(IPPI, International Polar Partnership Initiative)

- 사무국(장):
  - IOC과학의 날 미니학회에 극지연구현황 소개되었듯이
  - 탄소순환, 생물학적 측면 등 학제적 연구로서 타 학문분야에 파급효과 지대하기 때문에
  - IPPI라는 지속적 관측공조체제를 제안하게 됨
  - 제47회 집행이사회는 기존 극지공동연구체제와 중복성, 협력의 여지를 파악하라고 지시함
  - 이에 대해 세계기상학대회(2015)에서 논의한 결과 등을 고려하여
  - 북극조약국과 긴밀히 협의조정하는 조건으로 IPPI추진 승인을 총회에 요청함
- 한국(정재관): 지구변화 관측의 교두보로서의 가치에 주목하여 북극 관측중인 한국은 IPPI를 지지하며 WMO와 긴밀히 공조하여 효율적으로 기획추진할 것을 주문함

### 11.3. 차기 의장단/집행이사회 구성 (※ 147개 회원국중 111개국 표결 참가)

- 의장단(의장1, 부의장5)
  - 의장 : 단독후보 **Peter Hogan** (노르웨이) 당선
  - 부의장:
    - 1(서유럽/북미): 단독후보 **Stephen Peter Hall** (영국) 당선
    - 2(러/동유럽): 단독후보 **Alexander Postnov** (러시아) 당선

- 3(중남미지역): 단독후보 **Ariel Herman Troisi** (아르헨) 당선
- 4(아시아태평양): 단독후보 **Somkiat Khokiattiwong**(태국) 당선
- 5(아프리카): 단독출마\* **Ashley Johnson** (남아공) 당선

※ 회기중 탄자니아 Desiderius Masalu가 입후보하였다가 철회

○ 집행이사회(총 40)

- 지역그룹1(유럽북미 24국중 10석): 총 11개 신청국 중 자동진출 임원국2(노르웨이, 영국)을 제외한 9국(벨기에, 캐나다, 덴마크, 프랑스, 독일, 그리스, 터키, 포르투갈, 미국)대상으로 선거시행한 결과, 최저득표 ‘그리스’ 탈락 → 벨기에(95), 캐나다(98), 덴마크(94), 프랑스(105), 독일(103), 노르웨이(자동), 포르투갈(100), 터키(91), 영국(자동), 미국(80)

- 지역그룹2(동구14국중 3석): 우크라이나, 폴란드, 러시아(부의장국인으로 자동진출)

※ 회기중 불가리아 입후보하였다가 철회

- 지역그룹3(중남미30국중 9석): 브라질, 칠레, 콜롬비아, 쿠바, 에콰도르, 그라나다, 멕시코, 페루, 아르헨티나(부의장국으로 자동진출)

- 지역그룹4(아태33국중 9석): 호주, 방글라데시, 중국, 인도, 일본, 파키스탄, 필리핀, 한국, 태국(부의장국으로 자동진출)

- 지역그룹5(아프리카46국중 9석): 총 10개 신청국 중 자동진출 부의장국(남아공)을 제외한 9국(코트디브아, 이집트, 케냐, 모로코, 오만, 세네갈, 토고, 튀니지, 탄자니아)대상 선거시행한 결과, 최저득표 ‘오만’ 탈락 → 코트디브아르(97), 이집트(93), 케냐(99), 모로코(92), 세네갈(103), 탄자니아(90), 남아공(자동), 토고(90), 튀니지(86)

## 11. 행정사항

### 11.1. 향후 2년간 (2016-2017) IOC사업계획 및 예산(안)

- 제28차 IOC 총회 회기 중 예결심의위원회 Peter Haugan의장은 IOC 절차규정 8.1(c)에 의거, 과년도 결산보고서 및 차년도 예산(안)을 제출
- 회원국 이견 전무
- 원안대로 채택함

### 11.2. IOC최고의결기구 운영방식에 대한 자체평가 결과보고

- IOC사무총장은 ‘UNESCO의사결정방식에 대한 UN총괄감사부(JIU) 지적사항’에 따라 IOC의사결정방식에 대한 자체평가를 실시한 결과를 제28차 총회에 보고함
- 제28차 총회는 제출된 결과보고서에 대하여 의장단 검토를 거친 후 UNESCO에 제출하기로 결정함

### 11.4. 차기 일시 및 장소

- 제49차 집행이사회: 2016. 6. 6(월)-10(금) / 프랑스 파리
- 제29차 총회: 2017. 6월중 (휴일제외)6일간 / TBD

## 12. 결의(안) 및 의사록(Summary report) 검토·채택

- 제28차 총회는 회기중 결의문안기초위원회가 제안한 ‘제28차 총회 결의(안)’을 약간의 수정을 거쳐 채택함
- 총회는 오전 10시 부터 IOC 28차 총회 결의안을 검토함
- 총회는 오전 10시 25분 IOC 28차 총회 결의안을 채택함



- 결의1. Second International Ocean Indian Expedition
- 결의2. IOC Capacity Building Strategy (2015-2021)
- 총회는 오전 10시 25분부터 IOC 28차 총회 Working arrangements를 검토함
- 미국은 타 기구의 사례를 학습하여 반영할 것을 제안
- 영국은 총회와 총회사이 기간 중 ‘회람’이라는 매체를 통한 기구 상 시가동방식의 효율성을 지지하며 회람을 연중 지속해줄 것을 주문함
- 사무총장은 회원국의 의견을 반영하여 수정제출하기로 함
- 총회는 오전 10시 45분부터 12시까지 그리고 2시부터 2시 30분까지 제28차 IOC 총회 Summary report를 검토함
- 총회는 오후 2시 30분부터 Working arrangements수정본을 검토함
- 총회는 오후 2시 40분, 검토완료된 Working arrangements과 Summary report(폐회 1개월내 회람됨)를 최종본으로 채택함

### 13. 폐회

- 변상경 IOC의장은 지난 6일간 회기 중 위원회 위원장과 간사, 통역사의 수고를 치하하며 사무총장에게 폐회사를 청함
- 사무총장은 회기 중 휴식시간에 다과를 제공해준 국가, 기관 등에 감사함
- 의장은 후임의장 Peter Haugan에게 취임사 기회를 부여함
- 후임의장은 IOC에 거는 기대가 여느 때보다 큰 이 시점에 장기해양관측 지역단위활성화 기구 간 협력 소도서국지원 등 산적한 과제를 해결해 나가야 한다는 포부를 밝힘

- 의장은 퇴임의 변으로서 재정위기 등 격동의 임기 중 자신을 도와준 여러 분들과 국가들(특히 자신에게 여러모로 지원을 아끼지 않은 한국을 포함)에 감사드리며 중책을 맡게 된 후임의장을 격려함
- 일본은 기구의 의장이자 개인적으로 친구인 변 의장을 칭송하며 앞으로 지진해일경보 등 기구에 부여된 임무의 중요성과 기구 간 협력의 필요성을 상기시킴
- 튀니지는 제5지역그룹을 대표하여 아프리카에 주신 변 의장의 운용 해양학적 지원과 관심에 특별한 감사를 드림
- 아르헨티나, 프랑스, 인도, 중국도 변의장의 노고에 감사드림
- 오후 3시, 변 의장은 제28차 IOC 총회 폐회를 선언함

## VII 회기 중 위원회 및 작업반 회의 참가 활동

일시: 2015년 6월 18일 13:00~15:00

장소: UNESCO본부 제7회의실

참석자: 한국해양과학기술원 소속 이용열 KOC 간사

회의명: IOC 재정위원회 회의

### 1. 재원구분

- IOC회원국 연회비를 재원으로 하는 RB (오버헤드와 집행결과보고 면제): 2014년 기준 IOC총예산의 약 1/3차지 => 2015년도에 IOC교부예상액의 72%만 교부됨
  - Voluntary/Extrabudgetary Contributions to the IOC Special Account (오버헤드 10%를 떼고 IOC집행이사회에 집행실적을 보고, 신탁기금과 달리 공여국 수에 제한 없음. 즉 여러 나라의 돈이 한 계정에 섞임. 이월 가능)
    - Programme Activities (191-series accounts)
    - Earmarked Activities (193-series accounts)
  - Voluntary/Extrabudgetary Contributions for specific projects
    - UNESCO신탁기금(집행결과보고를 해야 하며 미집행잔액은 공여국에 환원, 오버헤드는 통상요율인 13%)
- ※ 기타: UNESCO Multi-donor Emergency Fund (회원국 정부 비정부단체 기업 개인 등 자격 제한 없이 누구나 기부가능. 기부 시 IOC로 용도를 특정하면 IOC예산으로 풀림)

## 2. 사업목적 및 재원별 집행결과

Main Line of Action 3: Promoting knowledge and capacity for protecting and sustainably managing the ocean and coasts	Regular Budget	Special Account	Funds-in -Trust	TOTAL
<b>ER 4 - Scientific understanding of ocean and coastal processes bolstered and used by Member States to improve the management of the human relationship with the ocean</b>				
Function A: Foster ocean research to strengthen knowledge of ocean and coastal processes and human impacts upon them	73 588,66	101 906,10	251 571,36	427 066,12
Function B: Maintain, strengthen and integrate global ocean observing, data and information systems	172 259,48	22 014,01	631 127,30	825 400,79
<b>Total ER 4</b>	<b>245 848,14</b>	<b>123 920,11</b>	<b>882 698,66</b>	<b>1 252 466,91</b>
<b>ER 5 - Risks and impacts of ocean-related hazards reduced, climate change adaptation and mitigation measures taken, and policies for healthy ocean ecosystems developed and implemented by Member States</b>				
Function C: Develop early warning systems and preparedness to mitigate the risks of tsunamis and ocean-related hazards	159 017,38	760 461,35	1 441 458,32	2 360 937,05
Function D: Support assessment and information to improve the science-policy interface	53 384,65	23 870,08	1 354 624,54	1 431 879,27
<b>Total ER 5</b>	<b>212 402,03</b>	<b>784 331,43</b>	<b>2 796 082,86</b>	<b>3 792 816,32</b>
<b>ER 6 - Member States' institutional capacities reinforced to protect and sustainably manage ocean and coastal resources</b>				
Function E: Enhance ocean governance through a shared knowledge base and improved regional cooperation	183 533,38	162 788,73	453 898,17	800 220,28
Function F: Develop the institutional capacity in all of the functions above, as a cross-cutting function	91 774,74	93 610,03	1 091 803,66	1 277 188,43
<b>Total ER 6</b>	<b>275 308,12</b>	<b>256 398,76</b>	<b>1 545 701,83</b>	<b>2 077 408,71</b>
<b>SUB-TOTAL FOR 3 EXPECTED RESULTS</b>				
IOC contribution to United Nations Development Assistance Framework (UNDAF)	0,00			0,00
IOC operating costs	23			23
IOC operating costs	026,23			026,23
Contribution to UNESCO Common Charges	90			90
Contribution to UNESCO Common Charges	499,00			499,00
<b>STAFF (supporting more than one ER)</b>	<b>3 205 366,13</b>	137 279,79		3 342 645,92
Special Account unliquidated obligations 1 January 2014		-190 124,48		
<b>TOTAL</b>	<b>4 052 449,65</b>	<b>1 111 805,61</b>	<b>5 224 483,35</b>	<b>7 122 691,94</b>

일시: 2015년 6월 18일 13:00~15:00

장소: UNESCO본부 제6회의실

참석자: 국립수산과학원 이준수 연구사

회의명: GOOS 운영위원회 제4선거지역 위원후보 단일화 협의회의

## 1. 배경

- 2011년 제26차 IOC 총회는 GOOS-SC를 발족시켜, 그 구성원을 10명의 지역별 안배 및 성비를 고려한 전문가와 5선거지역별 대표로 구성(총 15명)하기로 하였음(결의#8호)
- 4년임기(2년 임기, 연임가능)의 GOOS-SC지역대표 임명은 IOC총회에서 결정
- 그룹IV의 2012~2015년도 대표는 중국 Prof. Lin Shao-Hua
- 후임대표직에 5명 지원
  - 한국 이준수 박사
  - 인도 Dr. R. Venkatesan
  - 말레이시아 Dr. Mohd. Fadzil Mohd Akir
  - 일본 Dr. Takeshi Kawano
  - 이란 Dr. Nasser Hadjizadeh Zaker
- IOC전통에 따라 무 경합 선정하고자 후보 단일화 회의를 소집

## 2. 결과

- 6월 18일 13시부터 1시간 동안 그룹IV부의장인 Prof. Yutaka Michda의 주재로 그룹 IV 대표선정 위한 사전협의 진행한 결과, 이란 지원자와 일본 지원자가 출마를 철회하기로 하고 인도의 Dr. Venkatesan을 지지하였음.
- 이에, 우리나라 이준수 박사도 인도 Venkatesan을 지지하고 출마를 철회함. 단, 인도대표단으로부터 향후 GOOS-SC 출마 시 지지를 약속 받음
- 마지막으로 말레이시아 대표가 출마를 철회함으로써 인도 Venkatesan이 그룹IV 단독후보가 됨

## 3. 향후전망

- WESTPAC사무소장은 그룹IV의 담당해역이 태평양과 인도양 두 곳임을 들어 선거그룹별 GOOS-SC 대표자는 적어도 2명 이어야 함을 주장했고 위원회는 이를 타당하다고 받아들여, 본 회의에 발의하기로 함
- 국제기구 임원진출 확대가 글로벌 오션 거버넌스 리딩으로 이어지도록 하기 위해서는 보다 장노년층 전문가 지원통한 즉효지향보다 청장년층 전문가를 국제리더로 양성해야 함

일시: 2015년 6월 18일 13:00~15:00

장소: UNESCO본부 제8회의실

참석자: 한국해양과학기술원 소속 김현영 국제개발협력담당

회의명: IOC 선거후보지명위원회

## 1. 활동내역

- 그간 취합된 입후보 신청서의 유효성과 신청자의 유자격성을 확인함

## 2. 취득정보

- 의장선거는 무 경합 상태인바 단독출마자가 당선될 것으로 사료됨
- 제2지역대표 부의장직에 입후보자 없음
- 제4지역대표 부의장직에 말레이시아와 이란이 입후보의사 철회를 공식적으로 밝혀 단독출마자가 당선될 것으로 사료됨

### ※ 28차 총회 회기 중 IIOE-2기획작업반

- 6월 19일 오전 8시 30분부터 인도대표 Satheesh C. Shenoi 주재하에 IIOE-2진행상황 공유
- 한국대표단 중에서는 수과원 이준수 박사 참석
- 제27차 IOC 총회(2013년)의 결정으로 IIOE-2제안을 구체화시키기로 하여, 47차 집행이사회 (2014)결정으로 “연구 계획에 기반한 초기 계획 업무와 그 성과를 28차 총회에 보고하는 것을 목적”으로 하는 “IIOE-2 임시계획위원회(IPC)”를 설립하기로 함
- IPC는 IIOE-2가 인도양 국제심포지움 마지막 날인 2015년 12월 4일에 인도 Goa에서 발족되어 2020년까지 수행되는 것과 IIOE-2 조정위원회

## 설립, 조직 구성 등에 대해 권고함

- 이를 바탕으로 작성된 결의안 #XXVIII/DR.(5.3) 수정·보완함
  - 5. “인도양과 전지구 해양 및 대기를 연결시키는 촉매 프로젝트로서”라는 문구 추가
  - 13. “IOC사무국장이 (iii) IIOE-2 조정위원회와 밀접하게 IIOE-2 활동을 조정할 IOC Officer를 임명한다”는 내용 중 Officer 임명대신 IOC 사무국 직원을 임명한다
  - 15. “IIOE-2 과학 테마와 우선사항을 역점에 두는 프로젝트를 제안하고 촉진시키도록 회원국과 적절한 기구에 장려함” 추가
  - 16. “IIOE-2 이행에 있어서의 IOC 지역 조직의 역할을 주목함” 추가



**일시: 2015년 6월 22일 13:00~15:00**

**장소: UNESCO본부 제8회의실**

**참석자: 기상청 유승협 사무관**

**회의명: JCOMM Side meeting**

**1. Bridging oceanography and meteorology to monitor and forecast the oceans**  
(주제 발표 5건)

○ Nadia Pinardi

- 2015년은 운용해양학(operational oceanography)의 신기원
- WMO(WWW, WCRP, GAW)와 IOC(GOOS, IODE, GLOSS)의 다양한 연구 프로그램 연결
- JCOMM 가장 중요한 목표는 해양과 대기 예보, 재해 저감, 기후변화 프레임워크 구축
- VOS, OceanSITES 등 6개의 전지구 관측프로그램의 연결
- 실시간 관측을 통해 해양서비스를 구축하고 실제 유저들에게 제공하는 시스템 개발 추진

○ David Meldrum

- 새로운 해양관측 플랫폼, 변수의 평가 및 적용 고려 : GOOS, 생지화학 관측, pilot project 등
- 위성 관측 연계 및 심해관측 강화

○ Weidong Yu

- TPOS2020(열대태평양 관측통해 엘니뇨, ENSO 조기예측)은 TAO/TRITON array에 기반하되 buoy, argo, glider, wave glider, next generation buoy 등을 총동원한 새로운 열대해역 관측 플랫폼
- TPOS 2020 워크숍, 27~30, Jan, 2014, SIO
- 제1회 steering committee을 한국에서 개최 (6-9, Oct. 2014, KIOST)

○ 발표자 미팍악

- JCOMM in-situ observations programme support center를 설립, 국제적인 공조가 가장 중요
- 5명의 직원, 인턴 환영, 2015년 6월에 관련 secretary 뽑음
- [www.jcommops.org](http://www.jcommops.org) : 모니터링, 등록, 2000 년 이후의 데이터, 실시간 데이터 운영

○ Julia

- CMOC의 설립을 중국에서 추진
- JCOMM 4 총회에서 논의되었으며 IODE 회의('13년 3월, 멕시코)
- 2015년 WMO 총회에서 승인됨, 48차 IOC 총회에서 승인되길 기대

일시: 2015년 6월 22일 18:00~19:00

장소: UNESCO본부

참석자: 한국해양과학기술원 소속 김현영 국제개발협력담당

회의명: 선거후보 지명관리위원회

### 1. 후보단일화

- 제 5그룹 담당 부의장
  - 탄자니아가 철회
  - 남아공 단독 출마로 당선 확정됨
- 집행이사회 제2그룹(동구권)
  - 불가리아가 철회
  - 무선거로 나머지 3개 국가 진출 확정
- 집행이사회 제5그룹(아프리카)
  - 중동 후보 4개국중 1개국(아직 미정)이 철회하기로 하여
  - 무경합이 될 가능성
- 집행이사회 제1그룹(서유럽 및 북미)
  - 현재로선 표결 불가피

일시: 2015년 6월 18일 08:00~10:00

장소: UNESCO본부 제7회의실

참석자: 해양수산부 정재관 사무관, 한국해양과학기술원 이용열 KOC 간사

회의명: IOC 재정위원회 회의

## 1. IIOE-2경비

- 예결심의회위원장은 GOOS 인도양 경비와 태평양 경비를 50%씩 감액함으로써 조성한 8만불을 IIOE-2에 배정하기로 함
- GOOS경비삭감으로 인한 GOOS운용차질 우려에 대하여 사무국 (앨버트 피셔)는 GOOS목표와 IIOE목표간 중복되는 측면이 있으므로 GOOS→IIOE2예산대체가 여하한 사업목표의 이행을 포기하거나 등한하게됨을 의미하는 것이 아니라고 설명함
- IIOE-2이라는 항목명칭의 포괄성 지적에 대하여 ‘지속적 관측시스템 역량강화위한 IIOE-2’라고 수정함

## 2. GOSR경비

- 총회에서 논의된 대로 5만불의 seed money for fundraising필요
- ZNG예산중 IPBES 등 타 UN기구와의 협력관련 경비 및 ICAM & MSP관련경비항목에서 각출하여 조성한 16400불과 ZNG+예산에서 조성한 \$18,225을 GOSR에 배정함
- GOSR이라는 비용항목을 신설하지 않고 기존 TMT역량강화경비 \$29,275에 합산하여 명칭을 TMT & GOSR역량강화로 변경함

### 3. 총회에서 신규배정 지시한 비용항목의 재원 마련

- 아르헨티나는 특정항목 조정보다 전체 항목에 대한 정률감액조정을 제안함
- 캐나다는 항목마다 우선순위가 있으므로 정률감액 반대함
- 미국은 예산안과 총회지시간 차이가 있을 때 사무국이 intersessional financial committee과 협의하도록 TOR수정 제안함

일시: 2015년 6월 23일 13:00~15:00

장소: UNESCO본부

참석자: 국립수산과학원 이준수 연구사

회의명: IIOE-2 실무작업반 회의

## 1. IIOE-2운영위원회 구성계획 수립

- 인도 Satheesh Shenoi와 IOC사무국 Nick D'adamo가 공동주재
- 착수시점 (2015년 12월 4일) 이전에 IIOE-2운영위원회 결성요
- IIOE-2운영위원회 구성요소: 공동의장 및 3레벨(전략이행단계, 지역조정 단계, 과학학술단계)로 구성함.
- IOC, SCOR, IOGOOS 기구별로 공동의장 또는 한명의 의장과 두명의 부의장으로 구성
- 전략이행레벨 멤버:
  - SCOR의 6개 테마별 대표: “인간기원 스트레스 영향”, “경계류 역학, 용승 변동, 생태계 영향”, “몬순 변동성 및 생태계 응답”, “순환, 기후변동성과 변화”, “극한 기후와 생태계 및 인구에 대한 충격”, “인도양의 독특한 현상들”
  - 7개 워킹그룹별 대표: “과학과 연구”, “자료 및 정보 관리”, “역량개발”, “운영 조정”, “지원 및 소통”, “사회를 위한 과학 번역”, “자원과 후원”
  - IOC지역소위 대표: IOCAFRICA, WESTPAC, IOCINDIO 등
- 지역조정레벨
  - IIOE-2 참여 국가별 위원회 대표로 구성

○ 과학레벨

- 주요 프로젝트의 책임자들로 구성

○ IIOE-2운영위원 추천요청서가 각국으로 조만간 발송될 것임

## VIII 대양수심도(GEBCO) 관련 회의 보고

### 1. GEBCO관련 현지동향 파악 및 대응조치 시행

○ 일시: 2015년 6월 15일(월)

정부대표단(해양수산부 윤종호 해양개발과장, 한국해양과학기술원 이윤호 국제협력부장, 김현영 국제개발협력담당, 이용열 KOC간사 등)은 2015년 6월 15일 프랑스 파리 현지에서 GEBCO 의제에 대한 대응조치를 시행한 바, 아래와 같이 보고함

○ 회기 내 GEBCO 작업반 운영 확인

- 정부 대표단은 IOC총회 의결주문안(Action paper)내 기록된 회기내 작업반(sessional working group) 운영 계획에 주목하고 그 배경과 의도를 분석함
- 의장단회의 후 변상경 의장 면담을 통해 회기 내 GEBCO 작업반이 설치되어 운영될 예정임을 확인함: 의제 내용은 1) GEBCO 운영위원회(Guiding Committee)의 운영규정(ToR)과 절차규칙(RoP)의 개정안, 2) 향후 1년간, 2016년 집행이사회 개최시기까지 운영될 GEBCO 리뷰 그룹(회기간 작업반) 운영규정(ToR) 검토
- IOC사무국 파견근무중인 KIMST 배성환 박사는 IOC총회 공식웹페이지 일정표상 신규 등재된 다수의 Non-IOC meeting중 일부가 IOC총회 의결주문안(Action paper)에 포함된 GEBCO 의제 관련임을 확인함: GEBCO 작업반이 금주 내 시작됨을 확인

○ 회기 내 GEBCO 작업반 운영 대응을 위한 대표단의 긴급 대응조치

- 윤종호 과장은 해양수산부 해양영토과와 국립해양조사원에 연락하여 국내 GEBCO관련 당국자/전문가가 당초 일정을 변경하여 조기 도착하여 상기 작업반회의에 참석하여 대응토록 요청함



- 중국정부 대표단 내 GEBCO 담당자(중국 국가해양국 소속 Feng Jun)에 연락하여 양국 간 협의를 제안함: 중국 대표단이 파리에 도착 즉시 협의하기로 함
- 배성환 박사를 통해 IOC 사무국내 GEBCO관련 동향 파악 지속
- GEBCO 관련 IOC 총회 문서를 면밀히 검토하고, 국립해양조사원이 작성한 우리나라 대응 전략안을 송부 받아 분석
- IOC회원국의 지지 확보 계획 수립: 변상경 의장님이 지난 4년간 전 세계 운영해양학 취약 4개 지역을 대상으로 개최해 온 해양예보력 강화포럼을 통하여 축적된 해양우방국들에게 아국입장 지지발언을 요청하기로 함

## 2. 제1차 비공식 Working Group 회의

○ 일시: 2015년 6월 16일(화)

정부대표단(해양수산부 윤종호 해양개발과장, 한국해양과학기술원 이윤호 국제협력부장, 김현영 국제개발협력담당, 이웅열 KOC간사 등)은 2015년 6월 16일 프랑스 파리 현지에서 GEBCO 의제에 대한 대응조치를 시행한 바, 아래와 같이 보고함

- IOC 28차 총회의 회기 중 GEBCO review 작업반 좌장 Craig McLean 미국대표, IOC사무국내 GEBCO 담당관 Julian Barbière와 비공식 면담
  - 변상경 의장의 주선으로 16일 오전중 30분간
  - 해양수산부 윤종호 해양개발과장, 해양과기원 이윤호 국제협력부장, 김현영 국제개발협력 담당은 GGC 규정개정(안)이 비합리적임 지적함. 논란이 되고 있는 항목을 예로 들면서 일반적인 국제 프로젝트/기구의 운영규정과 비교하여 비정상적임을 강조하였고, GEBCO가 IOC의 국제사회 기여를 보여주는 프로젝트로 인정받기 위해서는 IOC의 적극적인 참여와 합리적인 관리가 필요함을 강조함

- McLean 좌장은 GEBCO 운영상 유연성(flexibility)이 필요하다는 소견을 피력함. GGC 규정개정(안)의 당차 가결을 희망하며, 이를 위해 한국과의 의견조율을 통해 문안 조정의 여지가 있다는 개인적 전망을 시사 (예: ToR 1.4 삭제/변경 가능성); 중국대표단과도 의견 조율을 취할 예정임을 언급
- 중국대표단 (장즈핑, 양야핑, 평준, 우웨이동 등) 중 미리 도착한 국가해양국 국제합작사 국제기구과 Feng Jun(Program Officer)과 GGC 규정 개정 공동대응을 위한 협의를 6.17(수) 오전 9시에 실시하기로 약속함
- 콜롬비아, 아르헨티나, 브라질, 불가리아, 남아프리카공화국 등의 대표에게 GEBCO 작업반 참가 및 아국입장 지지 요청 계획 수립
- 한국대표단 대책회의 장소를 유네스코본부 소회의실에 확보
- 오후 7시부터 대표단 일일 점검 및 대책회의를 통하여 금일 파악된 동향을 정리하고 내일 일정에 대비함

### 3. 한·중 대표단 간 전략공조 협의

○일시: 2015년 6월 17일(수)

정부대표단(해양수산부 윤종호 해양개발과장, 한국해양과학기술원 변상경 박사, 이운호 국제협력부장, 김현영 국제개발협력담당, 이용열 KOC간사, 이준수 국립수산물연구원 연구사, 유승협 기상청 사무관)은 2015년 6월 17일 UNESCO본부에서 개최된 과학의 날 행사기간 중 다각적인 해양과학외교활동을 펼친 바, 아래와 같이 보고함

- 참석자
  - 우리측: 해양수산부 윤종호 해양개발과장, 한국해양과학기술원 이운호 국제협력부장, 김현영 국제개발협력담당, 이용열 KOC간사
  - 중국측: 중국 국가해양국 국제합작사 국제기구과 Feng Jun

※ 타 중국대표(장즈핑, 양야핑, 우웨이동 등)는 17일 저녁 파리로착 예정

○ 중국의 기본입장 청취

- GEBCO의 발전을 위하여 IHO, IOC 양 기구의 균형이 필요함 (일개 특정기구 편중 지양)
- GEBCO 운영의 효율성도 중요하지만 효율을 위하여 모든 주요 의사 결정권을 의장 1인 혹은 소수에게 집중시키면 궁극적으로 손해임
- GEBCO에 정치적 의도를 가진 개입에 반대함

○ 한국의 기본입장 개진

- 중국의 입장에 동의함
- 다만, GEBCO 규정개정(안) 통과를 전제로 한 타협(negotiation) 논의가 진행될 경우를 대비한 대책 마련이 필요함을 강조

○ 한·중 양국간 논의 사항

- <RoP 1.4조, 옵저버 선출과 임기제>  
특정 교육훈련 출신자 중 1인을 GGC위원장이 5년임기의 옵저버로 선정하여 특별 영입하는 조항은 다른 국제기구나 프로그램에서 찾을 수 없는, 전례가 없는 비정상적인 규정임으로 무조건 삭제(삭제 외 다른 대안 없음)

※ 절차규정 (RoP) 3.1에서 제시된 회원국이 옵저버를 대표로서 GEBCO 회의에 파견할 수 있다는 규정 활용 가능

- <RoP 1.6조, 일반 옵저버나 전문가 초청 권한>  
전문가 초청 권한을 GGC 위원회가 아닌 위원장에게 주는 것은 유사한 사례가 있음을 고려하여, ‘the chair’를 ‘the committee’로 원안 복귀를 주장하거나, 문단 가장 뒤의 “with the support of Guiding

Committee Members”에서 “Members” 삭제를 요구함으로써 committee 동의를 필요하게 함

- <ToR 9조, 하부조직 개폐절차>

GGC에게 GEBCO산하 모든 단위조직의 (상설분과, sub-committee 및 비상설그룹, working group) 개폐권을 부여하는 것은 GEBCO에게 IOC의 모든 권한을 위임하는 과도한 사항이며, GEBCO에 대한 IOC의 영향력을 약화시키는 결과를 초래한다는데 인식을 같이함: 대응 방안으로서 1) GEBCO에 대한 IOC 회원국의 참여와 역할의 중요성과 IOC의 국제사회 기여 측면에서 GEBCO의 중요성을 강조, 2-1) 개정안에 ‘양 기구 허락을 득하여..., “with permission of IOC’를 추가, 혹은 2-2) 현 안(ToR 8)을 그대로 유지(현 안에는 상설분과 sub-committee는 GGC가 IOC에 개설을 제안(propose)하고 IOC의 승인을 필요로 함; 비상설 작업반의 경우는 GGC가 독자적으로 개폐할 수 있도록 되어 있음)

- 새롭게 개설되는 GEBCO 리뷰그룹 직무권한 규정 검토

향후 1년간 활동하게 될 GEBCO 리뷰그룹의 직무권한규정(TOR) 개정안은 IOC의 책임을 줄이는 방향으로 설정되어 있는 바, 오히려 IOC와 회원국의 책임과 역할을 강조하는 방향으로 개정되어야 함. 이러한 방향을 염두에 두고 직무권한규정을 면밀히 검토해야 함

- 상기 정정요청을 발언할 시 개정안을 공격하는 어조보다 GEBCO의 발전을 진심으로 희구하는 어조 유지 필요

#### 4. 정부대표단의 GEBCO 대응 전략회의

○ 일시: 2015년 6월 18일(목)

정부대표단 (해양수산부 윤종호 해양개발과장, 김광용 해양영토과장, 임채호 서기관, 김정현 사무관, 이재연 주무관, 한국해양과학기술원 이윤호 국제협력부장, 김현영 국제개발협력담당, 이용열 KOC간사, 이화여자대학교 성효현

교수, 한국지질자원연구원 한현철 책임연구원, 한국해양조사협회 최신희 본부장 등)은 2015. 06. 18. IOC 28차 총회 개회에 앞서 오전 8시부터 10시까지 UNESCO본부 8번 회의실에서 GEBCO관련의제 대응전략을 구상한 바, 아래와 같이 보고함

- 해양수산부 윤종호 해양개발과장이 긴급소집의 취지, 익일 개최될 GEBCO안전 최종점검을 위한 회기 중 작업반회의의 배경과 시사점, 이날 중식시간 중으로 예정된 한-중-미 3국간 의견조정회의 대응기조에 대하여 소개·발의함
- 해양수산부 김광용 해양영토과장은 GEBCO주요의안의 IOC총회 심의의결 생략추진, GGC위원장 권한의 과도한 확대강화, 지명대상 해역의 범위확대, 회의록 비공개 조치, 만장일치에 이르지 못 했을 시 표결함에 있어 절대다수(absolute majority)도 아닌 상대다수(simple majority)를 채택함으로써 초고속 의사결정 제도화 등 독소조항에 대해 분석한 바를 설명함
- 독소조항의 삭제와 동시에 타 회원국/사무국과의 선린관계·국격 유지라는 두 마리 토끼를 모두 잡기위해서는 공방이 지나치게 길어지는 것을 방지, GEBCO 개정안 중 절대 받아들일 수 없는 타협의 마지노선을 정해둘 필요가 있다고 판단한 바 1.4, 1.6 및 9조에 삭제 최우선 순위를 부여하고 받아들여지지 않을 시 중국과 공조하여 가결저지하기로 함

## 5. 제2차 비공식 Working Group 회의

○ 일시: 2015년 6월 18일(목)

정부대표단 (해양수산부 윤종호 해양개발과장, 김광용 해양영토과장, 임채호 서기관, 김정현 사무관, 이재연 주무관, 이윤호 국제협력부장, 이화여자대학교 성효현 교수, 한국지질자원연구원 한현철 책임연구원, 한국해양조사협회 최신희 본부장 등)은 2015. 06. 18. 오후 1시부터 UNESCO본부 제5회의

실에서 GEBCO개정 관계자간 (비공식)협약에 참여하여 현 개정안의 문제점을 제기하고 개정추진측의 의견을 청취하며 타협점을 모색한 바, 아래와 같이 보고함

- 회기 중 GEBCO Review WG회의가 있기 전 문제점에 대한 인지가 필요하다는 좌장 Craig McLean의 제안으로 소집된 본 회의에는 예상과 달리 IOC측(ie 좌장 Craig McLean 및 사무국 관계직원 Julian Barbière)보다 IHO임직원(Mr. Mustafa IPTES)이 더 주도적 자세를 보임
  - <RoP 1.6조, 일반 옵저버나 전문가 초청 권한>을 위원회 심의 없이 의장에 전권을 주는 조항의 환원요구에 IHO동의 확보 성공
  - 타 독소조항<RoP 1.4조, 옵저버 선출과 임기제 & ToR 9조, 하부조직 개폐절차>에 대해서는 IHO 영국출신 이사의 완강한 입장\* 고수로 인해 결론을 내지 못하고 명일 오전 재개하기로 함
- ※ IHO주장: GEBCO운영상 flexibility가 중요. GGC가 특정 국가의 이해를 초월한 전문 과학자들의 기구인 바 국가의 정치적 요소 배제되어야 함. 옵저버는 신진 전문가 특히 아프리카 등 개발도상국의 이해를 반영하기 위해서라도 조기양성이 중요하기 때문임
- 5년 임기 옵저버 지정에 대해서는 거부권을 행사하여 부결시키는 방안 또는 문안조정으로 무력화 시키는 방안 중에 고려 중

※GGC 규정 개정(안) 변경추이

<RoP 1.6조, 일반 옵저버나 전문가 초청 권한>

<p>IOC사무국 개정(안)</p> <p>The Chair may invite other suitably qualified individuals to take part in specific meetings as Experts Contributors with the support of the Guiding Committee Members.</p>	<p>한국 측 수정(안)</p> <p>The Chair <b>Committee</b> may invite other suitably qualified individuals to take part in specific meetings as Expert Contributors.</p>
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## 6. 제3차 비공식 Working Group 회의

○ 일시: 2015년 6월 19일(금) 09:00-10:00 / UNESCO본관 회의실

정부대표단(해양수산부 윤종호 해양개발과장, 김광용 해양영토과장, 임채호 서기관, 김정현 사무관, 이재연 주무관, KIOST 이윤호 국제협력부장, 이용열 KOC간사, 함상옥 연구원, 이화여자대학교 성효현 교수, 한국지질자원연구원 한현철 책임연구원, 한국해양조사협회 최신호 본부장)은 2015. 06. 19일 UNESCO본부 제6 회의실에서 개최된 제 28차 총회 회기중 GEBCO Review 워킹그룹 회의에 참석하여 아국의 입장을 표명함바, 아래와 같이 상세 보고함

- 참석자: 한국정부대표단, 중국정부대표단, IHO이사(Mustafa Iptes), WG 좌장 (Craig McLean), IOC 사무국(Julian Barbière)
- 협의내용
  - <ToR 9, 하부조직 개폐절차> 중국대표의 주장으로 “when”을 “before”로 수정. GEBCO의 하부단위 조직을 개폐하기 전에 회원국의 의견을 청취하여 반영토록 함 (IOC 연례회의에서 승인절차는 불필요); GEBCO 하부조직의 현황에 대한 단순보고(Inform)문구를 “report annually, and intersessionally if necessary”로 수정하며 연차보고를 의무화하고, 필요할 경우 중간보고를 하도록 함.
  - 한국측은 IOC의 승인이 필요하다는 현행(안)을 유지할 것을 주장

※GGC 규정 개정(안) 변경추이

<ToR 9조, 하부조직 개폐절차>

IOC 사무국 개정(안)	중국 측 수정(안)
<p>As required, establish subordinate bodies (sub-committees and working groups) to fulfill the Committee Work Program and approve the Terms of Reference and Rules of Procedure of those bodies, reviewing annually the continuing need for each subordinate body. The GEBCO Guiding Committee will inform the IHO and IOC on the status of subordinate bodies and will take their comments into account when establishing, reviewing, modifying, and/or terminating subordinate bodies</p>	<p>As required, establish subordinate bodies (sub-committees and working groups) to fulfill the Committee Work Program and approve the Terms of Reference and Rules of Procedure of those bodies, reviewing annually the continuing need for each subordinate body. The GEBCO Guiding Committee will <b>inform report annually and intersessionally, if necessary, to</b> the IHO and IOC on the status of subordinate bodies and will take their comments into account <b>before</b> establishing, reviewing, modifying, and/or terminating subordinate bodies.</p>

7. 공식 Working Group 회의

○ 일시: 2015년 6월 19일(금) 13:30-14:00 / UNESCO본관 6회의실

정부대표단(해양수산부 윤종호 해양개발과장, 김광용 해양영토과장, 임채호 서기관, 김정현 사무관, 이재연 주무관, KIOST 이윤호 국제협력부장, 이웅열 KOC간사, 함상욱 연구원, 이화여자대학교 성효현 교수, 한국지질자원연구원 한현철 책임연구원, 한국해양조사협회 최신호 본부장)은 2015. 06. 19일 UNESCO본부 제6 회의실에서 개최된 제 28차 총회 회기중 GEBCO Review 워킹그룹 회의에 참석하여 아국의 입장을 표명하바, 아래와 같이 상세 보고함

○ 참석자: 작업반 좌장(미국대표), 한국 외 약 22개국 대표단, IHO

○ 회의록:

[콜롬비아] 총회 의제 6.2관련, IOC가 GEBCO거버넌스에서 빠지면 안된다. 규정개정안은 작은 문제임으로 ICO의 GGC 프로젝트에 대한 역할 및 governance 먼저 논의해야 함

[IHO] 프로젝트에 대한 IOC의 역할과 GEBCO 지침 및 규정 개정안은 두 개의 다른 문제임으로 따로 논의해야 한다고 피력함. 또한 GEBCO 규정



은 몇 년 동안 보완 된 적이 없으므로, 현재 상황을 반영하여 보완하여 개정하여야 함을 피력함

[아르헨티나] 두 가지 문제가 따로 논의되어야 함을 피력하였고, 다른 국제기구의 하위 조직과 같은 역할을 GGC가 해야 함

[노르웨이] Annex 7 문서가 6월 4일에야 회원국들에게 공유되어, 검토할 시간이 없었음을 지적함.

[한국] 노르웨이와 콜롬비아 대표단의 의견에 동의함을 표하고, 두 개의 문제가 별개의 문제가 아닌 서로 연관되어 있는 문제임을 피력함. 한국은 GEBCO와 IOC의 관계가 더 밀접해야 한다고 주장함 (한국 발언문 참고)

[프랑스, 독일, 영국, 호주, 탄자니아, 캐나다, 아르헨티나 등] 대양수심도가 모든 회원국의 공통 관심사임을 주장하며, 규정 및 개정 수정안에 동의함. 이와 별개로 GEBCO에 관한 IOC의 역할은 생각해 봐야 할 필요가 있음을 언급함. 또한 IOC의 역할이 GEBCO 프로젝트를 진행하는데 있어 방해가 되지 않도록 해야 함을 언급함.

[실무작업반] GEBCO가 JCOMM 및 GOOS와 같은 역할과 기능을 갖고 있다고 언급함.

[한국] JCOMM, GOOS와 GEBCO의 차이점을 언급하며(JCOMM 및 GOOS는 대표 각 나라를 대표할 수 있지만, GEBCO의 경우엔 전문가로만 활동할 뿐 각 나라를 대표하지는 못함) 논지를 반박함 (한국 발언문 참조)

[콜롬비아] 서문4번을 “ocean mapping”에서 “scientific cooperation on ocean mapping”으로 수정할 것을 주장함: Preamble 2. Encourage and facilitate “ocean mapping” cooperation leading to the exchange and preservation of bathymetric data and associated metadata; 회원국 동의를 얻어 콜롬비아 의견 수렴함.

[한국] 서문2항에 “beyond the national jurisdiction”을 추가할 것을 제안함. 하지만, 수용되지는 않음: Preamble 4. Act as the designated international authority for undersea feature names.

[실무작업반] ToR 9을 논의할 것을 제안함.

[한국] ToR 9 뿐만 아니라 개정(안) 전체에 대한 한국의 입장을 문서로 배포하고 낭독함

<한국대표단이 배포한 문서내용>

Perspectives of Rep. of Korea on the proposed ToR and RoP of GGC

June 19, 2015

Mr. Chair

On behalf of Korean delegates, I would like to express my sincere gratitude for sharing your time to listen our opinions regarding GEBCO Guiding Committee's proposed ToR and RoP. Our delegates went through the GGC's proposal thoroughly, but we are deeply concerned on the following items.

The proposed ToR 9 indicates that GGC can make or terminate sub-committee without the permission of IHO and IOC. The reason for this amendment is to enhance the working process effectively because it will take one or two years to get the final approval from both IOC and IHO if the current procedure is maintained. However, we think, establishing a new organization, or terminating the existing organization should take a time to avoid any kinds of possible disputes and to clear reasonable doubts among Member States. Establishing, reviewing, modifying, and /or terminating sub-committees whose chairs will have equal voting power same as IOC-elected committee members greatly affect all Member States, and such activities can become their main area of interest. Moreover, the outcome of GGC project could have the international authority in naming the undersea features as stated in the preamble 2) of ToR. Therefore, such actions like establishing and terminating sub-committees which are deeply related with Member States' interest need to be approved by IHO and IOC. Accordingly, interests and participation from all Member States should have higher priority than just efficiency.

This kind of organization related issue on establishment and termination of GGC sub-committees should be handled differently from the issues on operation within the sub-committees. Therefore, Korea strongly suggests that ToR 9 of the consolidated proposal of the ToR-RoP for GGC should be amended for its sub-committees to have the permission of IHO and IOC. In this regard, the current ToR 8 states well on this matter and it needs to be retained.

Secondly, the proposed RoP 1.4 indicates that the committee will give a special

privilege to an elected observer with a fixed term, graduated from the program funded by a certain country. This obviously goes against the spirit of international organization, and also violates fairness, openness and equal opportunity among the Member States. As we know, multiple observers from the Member States shall attend any committee meetings if they have interest in a certain field to expand their background or knowledge. Any Member States also shall send their observers to the meetings whenever they want. This action will give privilege to that person and go against the equal opportunity to all people in hydrographic and oceanographic societies. Therefore, we propose to delete this newly added unreasonable paragraph RoP 1.4 completely. Fair Rules of Procedure for sending observers to the meetings by the Member States are already stated in the RoP 1.6 and 3.1. In regards of educating and training next generation, it should be handled as a separate issue from the matters on ToR and RoP of GGC.

Finally, the proposed RoP 1.6 indicates that GGC Chair can invite expert contributors with the support of GGC members. The reason for this proposed amendment is to make a decision effectively with the help of experts. It seems like a good proposal. However, the role of the Chair of the committee is to facilitate discussions amongst the Members. Exercising exclusive authorities over a certain issue goes above and beyond the Chair's mandate, and it does not serve the purposes and objectives of the Committee. Also, if the Chair makes a decision to select experts, it may mislead the conclusion because the Chair, himself may have a biased opinion. Therefore, we suggest changing a word from 'the Chair' to 'Committee' to draw a fair decision.

We do expect that all our proposed opinions should be reflected in the new ToR and RoP.

■ 한국의 포지션 페이지

그간 GGC와 소위원회가 세계 해양지도제작 발전에 큰 역할을 담당해왔고 기여한 점을 높이 평가하며 이 자리를 빌어 위원들에게 감사를 드림

2008년이래 변화된 상황에 맞춰 관련 규정들이 합리적으로 개정되어야 한다는 지적에도 공감을 표시함

규정의 개정은 회원국들이 모두가 원하고 동의하며 또 그들에게 이익이 될 수 있도록 개정되어야 하는 것이 마땅하다고 봄

GGC개정방향은 운영의 효율성을 높이기 위해 의장의 권한을 강화하고 GGC의 독립성을 확보하기 위하여 소위원회 신설 등, 그리고 새로운 전문가의 육성을 위한 옵저버 지위 부여 등등 많은 조항들을 개정 또는 신설하는 내용임

이해관계가 복잡하게 얽혀있는 국제사회에서 국제기구의 역할은 이러한 이해관계를 어떻게 조화롭게 반영하고 상호 존중과 공동의 발전이라는 목표를 이루어 나가는 것이 매우 중요하다고 봄

다시 말해서 운영의 효율성만을 중요하게 생각하면 회원국들의 이익이 균형 있게 반영되지 못하는, 더 중요한 가치를 잃게 됨. 이것이 지극히 바람직하지 않은 방향이라고 생각함

예컨대 특정국가의 재정적 지원을 받고있는 프로그램의 졸업자를 임기 5년의 옵저버로 임명하는 것은 그 어떤 국제기구의 운영규정에도 없는 불합리한 조항임

위원장은 의사결정의 주체인 위원회가 합리적인 의사결정을 할 수 있도록 지원하고 도와주는 역할을 하는 것이지 의장이 특정 사안에 대해 거의 배타적인 권한을 행사하는 경우도 위원회 제도의 취지에 전혀 맞지 않다고 생각함

GGC가 독자적으로 소위원회를 신설 또는 폐지하는 조항 역시 GGC의 역할에 대한 심도있는 검토가 필요하다고 봄.

단기간 또는 임시 조직으로서 소위원회를 만들고 하는 것은 GGC가 독립적으로 하는 것이 바람직하다고 봄

그러나 영구적인 소위원회의 설립과 관련해서는 상위 조직인 IHO와 IOC 총회에서 회원국의 의사가 반영되어야 한다고 봄

이것은 앞서 말했듯이 단순히 운영의 효율성 측면에서만 판단할 것이 아니라 회원국들의 이해 및 이익을 면밀히 고려해서 판단해야 함

○ 회의내용 요약정리:

- Preamble에서 scientific cooperation을 ocean mapping cooperation으로 수정. 거의 만장일치 (GGC 위원장 제외)로 콜롬비아(안)이 채택됨
- GEBCO 거너번스 재고의 필요성: 한국과 콜롬비아의 현행 유지론에 대하여 대부분(미국, 독일, 캐나다, 영국, 아르헨티나, IHO 등) 거버넌스 재고가 불가피함을 인정 (for the sake of agility, as in other int'l programs like JCOMM, GOOS, GCOS, WESTPAC etc)
- GEBCO 거너번스 재고와 규정개정의 선후관계: 한국과 콜롬비아는 선 거버넌스 정비 후 규정개정(안)을 논의하자고 제안했으나, 대부분 (미국, 독일, 캐나다, 영국, 아르헨티나, IHO 등)회원국은 두 가지가 별개이므로 선 개정 후에도 거버넌스 재고가 가능하다고 주장함
- 시간관계상 <RoP 1.10조, 회의록 공개>, <RoP 1.4조, 옵저버 선출과 임기제>, <ToR 9조, 하부조직 개폐절차> 문제에 대해서는 거론하지 못함

※GGC 규정 개정(안) 변경추이

<Preamble>

IOC 사무국 개정(안)	콜롬비아 측 수정(안)
Encourage and facilitate scientific cooperation leading to the exchange and preservation of bathymetric data and associated metadata;	Encourage and facilitate scientific <b>ocean mapping</b> cooperation leading to the exchange and preservation of bathymetric data and associated metadata;

8. 회기중 GEBCO Review WG회의 후 대책회의와 타협안 제시

○ 일시/장소: 2015년 6월 19일(금) 14:30-20:30 / UNESCO본관 S-383

정부대표단(해양수산부 윤종호 해양개발과장, 김광용 해양영토과장, 임채호

서기관, 김정현 사무관, 이재연 주무관, KIOST 이윤호 국제협력부장, 이웅열 KOC간사, 함상옥 연구원, 이화여자대학교 성효현 교수, 한국지질자원연구원 한현철 책임연구원, 한국해양조사협회 최신호 본부장)

○ 협의내역:

[김정현] ToR 9의 직접적인 피해가 있는가? 영향력이 있는가?

[김광용] 1.4를 우선순위로 하고, ToR 9을 수용하는 것은 어떤가?

[김정현] 1.4 & ToR 9 관련 IHO의 입장은 매우 유연하게 물러선 경우다.

[윤종호] 1.4과 9번을 수용할 경우, 우리에게 미치는 영향에 대해 생각해 보자.

[김광용] 상부입장은 1.4와 9를 관철하자는 것이다 따라서 1.4는 타협의 여지가 없다.

[김정현] 1.4를 굳이 ToR과 RoP에 넣을 필요가 있느냐라는 논리로 가는 것은 어떤지?

[윤종호] ToR 9번은 개정항목에서 빼자.

[성효현] 1.4를 빼고 ToR 9를 수용해서 통과시키면 안되냐. 1.4의 세부조항도 많다.

[이윤호] 1.4는 빼고 ToR 9는 incorporate로 해서 가자. Minute 비공개 언급해야 한다.

[성효현] TOR-10에 next generation education에 관한 언급이 있다.

[한현철] 협상하려면 chair와 해야 한다. ToR 9 를 incorporate로 변경하고 1.4를 빼는 것으로 해서 승인하는 것으로 하는 것은 어떤가. 하지만, 상대방이 거부했을 때, 우리의 전략이 무엇인가?

[이윤호] RoP의 1.10 회의록 공개가 지워진 것을 회복해야 한다.

[성효현] 1.4를 뺄 경우에, ToR-12을 보완하자고 하면 어떨까?

○ WG좌장 Craig McLean측에게 한국측 타협안 제시

- 일시: 2015년 6월 19일(금) 16:00

- 참석자: 해양수산부 윤종호 해양개발과장, 해양수산부 김광용 해양영토과장, 한국해양과학기술원 이윤희 국제협력부장
- <RoP 1.4조, 옵저버 선출과 임기제> 삭제: 이는 양보할 수 없음; deal breaker임을 언급
- <ToR 9조, 하부조직 개폐절차> “take their commnets into account”를 “incorporate their comments”로 제안
- <RoP 1.10조, 회의록 공개> 회의록 공개를 의무화 하도록 조항의 복원 요청

※GGC 규정 개정(안) 변경추이: 한국 측 타협안

<RoP 1.4조, 옵저버 선출과 임기제>

<p>IOC사무국 개정(안)</p> <p>In addition, the Committee may have one elected observer who is a graduate alumni of a GEBCO ocean mapping course. The elected observer will be appointed as a non-voting Member for a five-year term. The Member States may submit candidates to be chosen by the GEBCO Guiding Committee through an election organized by the Committee Chair.</p>	<p>한국 측 수정(안)</p> <p><b>1.4조항 전체 삭제</b></p>
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<ToR 9조, 하부조직 개폐절차>

<p>IOC 사무국 개정(안)</p> <p>As required, establish subordinate bodies (sub-committees and working groups) to fulfill the Committee Work Program and approve the Terms of Reference and Rules of Procedure of those bodies, reviewing annually the continuing need for each subordinate body. The GEBCO Guiding Committee will report annually and intersessionally, if necessary, to the IHO and IOC on the status of subordinate bodies and will take their comments into account when establishing, reviewing, modifying, and/or terminating subordinate bodies.</p>	<p>한국 측 수정(안)</p> <p>As required, establish subordinate bodies (sub-committees and working groups) to fulfill the Committee Work Program and approve the Terms of Reference and Rules of Procedure of those bodies, reviewing annually the continuing need for each subordinate body. The GEBCO Guiding Committee will report annually and intersessionally, if necessary, to the IHO and IOC on the status of subordinate bodies and will <del>take their comments into account</del> <b>incorporate their comments</b> before establishing, reviewing, modifying, and/or terminating subordinate bodies.</p>
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<RoP 1.10조, 회의록 공개>

<p>IOC 사무국 개정(안)</p> <p>삭제</p>	<p>한국 측 수정(안)</p> <p><b>All documents related to meetings and decisions of the Committee and Sub-Committees and other relevant documents will be posted on the GEBCO web site listed to the IHO and IOC web sites.</b></p>
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9. 회기중 GEBCO Review WG회의후 대책회의 계속

○ 일시: 2015년 6월 20일(토) 14:30-19:00 / UNESCO별관 3층

정부대표단(김광용 해양영토과장, 임채호 서기관, 김정현 사무관, 이재연 주무관, KIOST 이윤호 국제협력부장, 이용열 KOC간사, 함상옥 연구원, 이화여자대학교 성효현 교수, 한국지질자원연구원 한현철 책임연구원, 한국해양조사협회 최신호 본부장)

○ 회의내용: 한국 측의 타협안이 받아들여지지 않는 경우를 대비하여 제3의 (안) 도출에 대해 논의

10. IHO 대표와 비공식 회의

○ 일시: 2015년 6월 22일(일)

정부대표단(김광용 해양영토과장, 김정현 사무관, 정재관 사무관, KIOST 이윤호 국제협력부장)

○ 협의내용

- IHO 대표(Mustafa Iptes)의 요청으로 모임개최



- IHO와 IOC사무국, WG좌장이 협의하여 한국측 타협안을 받아들이기로 했음을 통보받음
- 다만, <ToR 9조, 하부조직 개폐절차>관련 우리가 제안한 “incorporate their comments”를 “encompass their comments”로 수정하여 제시했음; 우리 측이 이를 수용함.

※ GGC 규정 개정(안) 조항 변화 추이  
<ToR 9조, 하부조직 개폐절차>

<p>한국 측 수정(안)</p> <p>As required, establish subordinate bodies (sub-committees and working groups) to fulfill the Committee Work Program and approve the Terms of Reference and Rules of Procedure of those bodies, reviewing annually the continuing need for each subordinate body. The GEBCO Guiding Committee will report annually and intersessionally, if necessary, to the IHO and IOC on the status of subordinate bodies and will <b>incorporate their comments</b> before establishing, reviewing, modifying, and/or terminating subordinate bodies; actions which must be included as GGC agenda items to allow sufficient prior consideration by the IHO and IOC secretariats and member states.</p>	<p>IOC 사무국 채 개정(안)</p> <p>As required, establish subordinate bodies (sub-committees and working groups) to fulfill the Committee Work Program and approve the Terms of Reference and Rules of Procedure of those bodies, reviewing annually the continuing need for each subordinate body. The GEBCO Guiding Committee will report annually and intersessionally, if necessary, to the IHO and IOC for endorsement on the status of subordinate bodies and <b>encompass</b> their comments before establishing, reviewing, modifying, and/or terminating subordinate bodies; actions which must be included as GGC agenda items to allow sufficient prior consideration by the IHO and IOC secretariats and member states.</p>
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## 11. 쟁점이 되었던 GGC 규정 개정(안)과 최종 통과안

### <preamble 4항>

<p>[IOC사무국 개정(안)]</p> <p>Encourage and facilitate scientific cooperation leading to the exchange and preservation of bathymetric data and associated metadata;</p>	<p>[통과안]</p> <p>Encourage and facilitate <b>ocean mapping cooperation</b> leading to the exchange and preservation of bathymetric data and associated metadata;</p>
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### <ToR 9조, 하부조직 개폐절차>

<p>[IOC사무국 개정(안)]</p> <p>As required, establish subordinate bodies (sub-committees and working groups) to fulfill the Committee Work Program and approve the Terms of Reference and Rules of Procedure of those bodies, reviewing annually the continuing need for each subordinate body. The GEBCO Guiding Committee will inform the IHO and IOC on the status of subordinate bodies and will take their comments into account when establishing, reviewing, modifying, and/or terminating subordinate bodies.</p>	<p>[통과안]</p> <p>As required, establish subordinate bodies (sub-committees and working groups) to fulfill the Committee Work Programme and approve the Terms of Reference and Rules of Procedure of those bodies, reviewing annually the continuing need for each subordinate body. The GEBCO Guiding Committee <b>will report annually and intersessionally if necessary</b>, to the IHO and IOC for endorsement on the status of subordinate bodies and <b>encompass</b> their comments <b>before</b> establishing, reviewing, modifying, and/or terminating subordinate bodies; actions which must be included as GGC agenda items to allow sufficient prior consideration by the IHO and IOC secretariats and member states.</p>
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### <RoP 1.4조, 옵저버 선출과 임기제>

<p>[IOC사무국 개정(안)]</p> <p>In addition, the Committee may have one elected observer who is a graduate alumni of a GEBCO ocean mapping course. The elected observer will be appointed as a non-voting Member for a five-year term. The Member States may submit candidates to be chosen by the GEBCO Guiding Committee through an election organized by the Committee Chair.</p>	<p>[통과안]</p> <p>1.4조항 전체 삭제</p>
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<RoP 1.6조, 일반 옵저버나 전문가 초청 권한>

<p>[IOC사무국 개정(안)]</p> <p>The Chair may invite other suitably qualified individuals to take part in specific meetings as Experts Contributors with the support of the Guiding Committee Members.</p>	<p>[통과안]</p> <p><b>The Committee may invite other suitably qualified individuals to take part in specific meetings as Expert Contributors.</b></p>
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<RoP 1.10조, 회의록 공개>

<p>[IOC사무국 개정(안)]</p> <p>Deleted</p>	<p>[통과안]</p> <p><b>All documents related to meetings and decisions of the Committee and Sub-Committees and other relevant documents will be posted on the GEBCO web site linked to the IHO and IOC Web site.</b></p>
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## IX 제28차 IOC 총회 관찰 및 평가

1. 한국은 금번 개최된 제28차 IOC 총회에 조신희 해양수산부 국제원양정책관을 수석대표로 총 20명의 대표단이 순환 참석하였음. 회의 기간 중 의장 보고, 사무총장 보고, 유네스코 사무총장 연설 등에서 한국의 활동과 지원이 언급되었으며, 각종 의제에서도 한국이 적극적으로 발언하는 활발한 활동을 하였다고 판단함.
2. 동 회의에서는 IOC 사업과 예산, 지역위원회, 세계해양과학보고서(GOSR), 지구해양관측시스템(GOOS), 국제해양데이터정보교류(IODE), 지진해일조기경보시스템 등의 주요 의제를 심도 있게 논의하였고, 한국은 IOC의 미래 및 역량강화에 관한 회기간 실무작업반 활동에 활발하게 참여하였음.
3. 일본이 재정 지원을 전담하고 있는 GEBCO 운영 관련, 총회 결과 민주적 절차는 어느 정도 개선된 것으로 판단되나, 향후 금번 개정안을 이행하는 과정에서 일부 회원국의 이익을 편향적으로 반영해나갈 가능성에 대해서는 지속 경계해야 할 것으로 사료됨. 따라서 금번 총회 시 설치키로 합의한 회기간 작업반 GEBGO Review Group에 한국이 적극적으로 참여할 필요가 있으며, GEBCO 사업에 대한 한국의 재정 기여도를 제고할 필요가 있음. 또한 GEBCO에서 위상을 높이고 해저지명에 대한 한국의 발언권을 강화하기 위해서는 한국과 이해관계가 있는 대양에서 GEBCO 자료를 직접 생산하여 제공하는 “Korea GEBCO 대양 관측사업”의 개발과 수행이 절실함.
4. 동 총회에서 2011년부터 4년간 IOC 의장으로 활동해 왔던 변상경 박사가 임기를 만료 함. 이에, 아르헨티나, 일본, 튀니지, 프랑스, 인도, 중국 등은 폐회식에서 변 의장의 리더십과 한국의 기여에 대해 사의를 표명함. 또한 한국은 동 회의에서 IOC 집행이사국에 선출됨으로서 1993년 이후 23회 연속 집행이사국으로 진출하게 됨.

5. 전임 의장국으로서 앞으로 우리나라가 IOC에서 지속적인 리더십을 발휘하기 위해서는 IOC의 지역 및 하부기구 위원회에 적극 참여하면서 관련 기관 내 후속세대를 적극 양성할 필요가 있다고 봄.
6. 정부대표단이 금번 회의를 준비하는 과정 중 IOC 사무국 파견 한국 직원 (한국해양과학기술진흥원)을 통해 관련 동향을 파악함으로써, 대응 전략 수립에 도움이 되었던 바, 특히 우리나라 과학 분야 전문가들이 국제기구에 진출하여 국제적인 네트워크를 구축할 수 있도록 더욱 지원할 필요가 있다고 사료됨.
7. 금번 대표단은 주관 기관인 KIOST를 비롯하여 국립수산과학원, 기상청, 국립해양조사원, GEBCO 운영위원회 한국대표(이화여자대학교 성효현 교수), 한국지질자원연구원 등 국내 관련 기관 및 전문가 별로 각 분야의 의제 분석 및 발언자료를 준비하여 소기의 성과를 거둔 것으로 판단됨. 그러나 향후에는 대표단 구성과 훈령 등을 보다 일찍 준비하여 (최소 회의 개최 3개월 전) 회의에 임해야 할 것으로 여겨짐. 또한 대표단 구성 시 관련 전문가들이 지속적으로 참가하여 전문성과 일관성을 유지하는 한편 차세대 전문가 양성을 위해 후진들의 참여폭을 넓히는 방안도 강구해야 할 것임.





# X. 첨부자료





# 1. 의제목록 및 시간표







**INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION**  
(of UNESCO)

**Twenty-eighth Session of the Assembly**  
UNESCO, Paris, 18–25 June 2015

**REVISED PROVISIONAL AGENDA**

**1. OPENING**

**2. ORGANIZATION OF THE SESSION**

2.1 ADOPTION OF THE AGENDA

[Rule of Procedure 8]

2.2 DESIGNATION OF THE RAPPOREUR

[Rule of Procedure 25.4]

2.3 ESTABLISHMENT OF INTRASESSIONAL COMMITTEES AND WORKING GROUPS

[Rule of Procedure 12]

2.4 INTRODUCTION OF DOCUMENTATION, TIMETABLE AND MEMORIAL LECTURES

[Rule of Procedure 11; EC-XLVII/DEC.7.3]

**3. STATE OF THE IOC, ITS REGIONAL SUBSIDIARY BODIES  
AND ITS PROGRAMME AND BUDGET**

3.1 STATEMENT OF THE CHAIRMAN ON THE STATE OF IOC

[Rule of Procedure 8.1(a)]

3.2 REPORT BY THE EXECUTIVE SECRETARY ON PROGRAMME  
AND BUDGET (2014–2015) IMPLEMENTATION

[Rule of Procedure 8.1(b) and (c); Rule of Procedure 49.1]

3.3 REPORTS BY THE CHAIRS OF THE IOC SUB-COMMISSIONS  
AND REGIONAL COMMITTEES

[Rule of Procedure 48.3; Res. XXVI-1]

**3.3.1 IOC Sub-Commission for the Western Pacific:**

**10<sup>th</sup> Session of WESTPAC, 12–15 May 2015, Phuket, Thailand**

**3.3.2 IOC Sub-Commission for the Caribbean and Adjacent Regions:**

**13<sup>th</sup> Session of IOCARIBE, 25–28 May 2015, Merida, Mexico**

**3.3.3 IOC Sub-Commission for Africa and the Adjacent Island States:**

**3<sup>rd</sup> Session of IOCAFRICA, 13–15 April 2015, Nairobi, Kenya**

**3.3.4 Report of the IOC Meeting of the Regional Subsidiary Bodies**

[Res. XXV-2; Res. XXVI-1]

3.4 INTRODUCTION TO DRAFT PROGRAMME  
AND BUDGET FOR 2016–2017

[Statutes Art. 1.2; Res. EC-XLVII.2]

3.5 REPORT OF THE IOC (2014–2015) TO THE THIRTY-EIGHTH GENERAL  
CONFERENCE OF UNESCO

[Statutes Art. 3.2; Rule of Procedure 49.2]

#### **4. THE FUTURE OF IOC**

[Dec. EC-XLVII.4; IOC-XXVII/Dec.5.1]

#### **5. OCEAN RESEARCH**

[Res. XXVII-2(B)]

- 5.1 STATUS REPORT OF THE IOC GLOBAL OCEAN SCIENCE REPORT (GOSR)  
[EC-XLVII/Dec.6.2]
- 5.2 WMO-IOC-ICSU WORLD CLIMATE RESEARCH PROGRAMME (WCRP):  
REPORT AND REVIEW  
[IOC-XXVII/Dec.5.4.1]
- 5.3 SECOND INTERNATIONAL INDIAN OCEAN EXPEDITION  
[Res. EC-XLVII.1]

#### **6. ASSESSMENT AND INFORMATION FOR POLICY**

[Res. XXVII-2(B)]

- 6.1 UNITED NATIONS WORLD OCEAN ASSESSMENT  
[Rule of Procedure 8.1(g)]
- 6.2 REVISED TERMS OF REFERENCE OF THE GENERAL BATHYMETRIC  
CHART OF THE OCEANS (GEBCO) GUIDING COMMITTEE  
[EC-XLVII/Dec.3.1(II)]

#### **7. OBSERVING SYSTEMS AND DATA MANAGEMENT**

[Res. XXVII-2(B)]

##### **7.1 OBSERVING SYSTEMS**

###### **7.1.1 Global Ocean Observing System**

[Rule of Procedure 8.1(a); Res. XXVI.8; IOC-XXVII/Dec.5.3.2]

###### **7.1.2 WMO-ICSU-IOC-UNEP Global Climate Observing System (GCOS)**

[Res. XVI-8; IOC-XXVII/Dec.5.3.5]

###### **7.1.3 Joint WMO-IOC Technical Commission for Oceanography and Marine Meteorology (JCOMM)**

[Rule of Procedure 48.3; EC-XLVII/Dec.3.2.2]

##### **7.2 DATA MANAGEMENT**

###### **7.2.1 International Oceanographic Data and Information Exchange: 23<sup>rd</sup> Session of IODE, 17–20 March 2015, Bruges, Belgium**

[Rule of Procedure 48.3]

#### **8. EARLY WARNING AND SERVICES**

[Res. XXVII-2(B)]

##### **8.1 REGIONAL TSUNAMI WARNING SYSTEMS**

[Rule of Procedure 48.3]

###### **8.1.1 Intergovernmental Coordination Group for the Pacific Tsunami Warning and Mitigation System: 26<sup>th</sup> Session of ICG/PTWS, 22–24 April 2015, Hawaii, USA**

###### **8.1.2 Intergovernmental Coordination Group for the Indian Ocean Tsunami Warning and Mitigation System: 10<sup>th</sup> Session of ICG/IOTWS, 24–26 March 2015, Muscat, Oman**

**8.1.3 Intergovernmental Coordination Group for the Tsunami and Other Coastal Hazards Warning System for the Caribbean and Adjacent Regions: 10<sup>th</sup> Session of the ICG/CARIBE-EWS, 19–21 May 2015; Sint Maarten, Kingdom of the Netherlands**

**8.1.4 Intergovernmental Coordination Group for the Tsunami Early Warning and Mitigation System in the North-Eastern Atlantic, the Mediterranean and Connected Seas: 11<sup>th</sup> Session of ICG-NEAMTWS, 12–14 November 2014, Nicosia, Cyprus**

8.2 GLOBAL COORDINATION OF WARNING AND MITIGATION SYSTEMS FOR OCEAN HAZARDS (TOWS-WG)  
[Rule of Procedure 48.3; IOC-XXVII/Dec. 5.2.2(IV)]

8.3 HARMFUL ALGAL BLOOMS: 12TH SESSION OF THE INTERGOVERNMENTAL PANEL ON HARMFUL ALGAL BLOOMS (IPHAB), 28–30 APRIL 2015, UNESCO, PARIS  
[Rule of Procedure 8.1(a)]

## **9. CAPACITY DEVELOPMENT**

[Res. XXVII-2(B)]

9.1 REPORT OF THE INTERSESSIONAL WORKING GROUP FOR THE DEVELOPMENT OF THE IOC CAPACITY DEVELOPMENT STRATEGY  
[EC-XLVII/Dec.6.1]

## **10. SUSTAINABLE DEVELOPMENT AND GOVERNANCE**

[Res. XXVII-2(B)]

10.1 UN COORDINATION AND CONTRIBUTION TO OCEAN GOVERNANCE  
[Rule of Procedure 8.1(g)]

10.2 INTEGRATED COASTAL AREA MANAGEMENT PROGRAMME (ICAM)  
[IOC-XXVI/Dec. 8.2]

10.3 INTERNATIONAL POLAR PARTNERSHIP INITIATIVE  
[EC-XLVII/Dec.6.4]

## **11. ADMINISTRATION AND MANAGEMENT**

[Statutes Art. 6B]

11.1 REPORT BY THE CHAIRPERSON OF THE FINANCIAL COMMITTEE ON THE IOC DRAFT PROGRAMME AND BUDGET FOR 2016–2017 (DRAFT 38 C/5)  
[Statutes Art. 1.2; Res. EC-XLVII.2]

11.2 SELF-ASSESSMENT OF THE IOC GOVERNING BODIES IN FOLLOW-UP TO THE UNITED NATIONS JOINT INSPECTION UNIT'S (JIU) RECOMMENDATIONS CONCERNING THE METHODS OF WORK OF UNESCO'S INTERGOVERNMENTAL BODIES

11.3 ELECTIONS OF THE OFFICERS OF THE COMMISSION AND MEMBERS OF THE EXECUTIVE COUNCIL  
[Statutes Art. 6.B.5 and 7; Annex I to the Rules of Procedure]

**11.3.1 Election of the Chairperson of the Commission**

**11.3.2 Election of the Vice-Chairpersons of the Commission**

**11.3.3 Election of the Members of the Executive Council**

11.4 29<sup>TH</sup> SESSION OF THE ASSEMBLY AND 49<sup>TH</sup> AND 50<sup>TH</sup> SESSIONS OF THE EXECUTIVE COUNCIL  
[Statutes, Art. C.7; Rule of procedure 19.2]

**12. ADOPTION OF THE SUMMARY REPORT AND RESOLUTIONS**

**13. CLOSURE**



INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION

(of UNESCO)

Twenty-eight Session of the Assembly

Paris, 18–25 June 2015

REVISED PROVISIONAL TIMETABLE

IOC-XXVIII/1 Add. Prov. Rev.  
Paris, 16 June 2015  
English only

(Deadline for DRs)		48th EC	Science Day	28 <sup>th</sup> Session of the Assembly						
hour	Monday 15 June	Tuesday 16 June	Wednesday 17 June	Thursday 18 June	Friday 19 June		Monday 22 June	Tuesday 23 June	Wednesday 24 June	Thursday 25 June
08.00							Financial Committee (II)	Financial Committee (IV)	Resolution Committee (II)	
10.00 - 11.30	Meeting of IOC Officers	1. Opening 2. Organization of the session (2.1–2.2) 3. Organization of IOC-28 (3.1)	A. Bruun Memorial Lecture Oceans and Human Health	1. Opening 2. Organization of the Session (2.1 – 2.4) 3. Statutory Reports 3.1 Chair's Statement	3.3.4 Report of the RSB Meeting 4. The Future of IOC		6.2 GEBSCO GC ToR-RoP 7. Observing Systems & Data Management 7.1 OBS 7.1.1 GOOS	8. Early Warning & Services 8.1 Reg. Tsunami Warning Systems 8.1.1 PTWS 8.1.2 IOTWS	11.1 Report of the Financial Committee on the Draft P&B 2016-17	12. (Cont'd) Adoption of DR and Summary Report
11.30 - 11.45	BREAK	BREAK	Discussion Panel	BREAK			BREAK			
11.45 - 13.00	Meeting of IOC Officers	3.2 Request for Suppl. Items 3.3 Sessional WG 3.4 Timetable 4. Dates & places next sessions	on the development of Gliders as new platforms for measuring the ocean	3.2 Ex. Sec.'s Report on P&B 2014-15	4. (Cont'd)		7.1.2 GCOS 7.1.3 JCOMM	8.1.3 CARIBE-EWS 8.1.4 NEAMTWS 8.2 Global Organization (TOWS-WG)	11.3 Elections	12. (Cont'd)
13.00 - 15.00	LUNCH BREAK	LUNCH BREAK	LUNCH BREAK	Financial Committee (I)	LUNCH BREAK		Financial Committee (III)		Nominations Committee	LUNCH BREAK
15.00 - 16.30	Regional Subsidiary Body Meeting Intersectoral Financial Advisory Group	Intersectoral Working Group on the Future of the IOC	N.K. Panikkar Memorial Lecture IIOE: past, present and future	3.2 (Cont'd) 3.4 Intro to Draft P&B 2016-17	5. Ocean Research 5.1 GOSR 5.2 WCRP Report & Review		7.2 DATA 7.2.1 IODE-23	8.3 IPHAB-12 9. Capacity Development 9.1 IWG Report on CB Strategy	11.3 Report Nom. Cttee - Elections (results) 11.2 Self-Assessment on Governance	12. (Cont'd)
16.30 - 16.45	BREAK	BREAK	Discussion Panel	BREAK			BREAK			
16.45 - 18.00	RSB Meeting Intersectoral Financial Advisory Group	6. Adoption of the EC Report 7. Closure	on Scientific Challenges in the Arctic Ocean	3.3 Reports of Sub-Commissions 3.3.1 WESTPAC 3.3.2 IOCARIBE 3.3.3 IOCAFICA	5.3 IIOE-2 6. Assessment and Information for Policy 6.1 UN WOA		10. Sustainable Development & Governance 10.1 UN Coordination 10.2 ICAM 10.3 IPPI	11. Administration and Management 3.5 Report to GC-38	11.4 Next Sessions 12. Report of the Resolutions Committee	13. Closure
After 18.00				IOC Reception	Closing date for the nominations for elections (18h00)					





## **2. 제48차 IOC집행이사회 회의록 (IOC 공식영문 회의록)**







**INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION**  
(of UNESCO)

**Forty-eighth Session of the Executive Council**  
UNESCO, Paris, 16 June 2015

## **EXECUTIVE SUMMARY REPORT**

### **1. OPENING**

- 1 The Chair, Mr Sang-Kyung Byun, opened the 48th Session of the Executive Council at 10.00 h in Room IV on Tuesday 16 June 2015. He welcomed the participants and briefly referred to the documentation prepared for this session, which can be found on the IOC web site (<http://ioc-unesco.org/ec-48>). He informed the Council that, in accordance with Rule of Procedure No. 12(2), the Council was acting as the Steering Committee for the 28th Session of the Assembly. Mr Byun welcomed Vladimir Ryabinin to his inaugural appearance at an IOC governing body session as Executive Secretary of IOC.

### **2. ORGANIZATION OF THE SESSION**

#### **2.1 ADOPTION OF THE AGENDA**

- 2 The Executive Secretary introduced this item.

- 3 The Executive Council met during half a day and resumed its work later in the afternoon to adopt the summary report of this session.

#### **EC-XLVIII, Dec. 2.1**

##### **Agenda**

1. The Executive Council adopts the agenda as set out in document IOC/EC-XLVIII/1 Prov.

#### **2.2 DESIGNATION OF THE RAPPORTEUR**

- 4 The Chair invited the Executive Council to designate the Rapporteur for the present session.

- 5 Brazil proposed, and Kenya seconded, Frederico Saraiva Nogueira (Brazil) as Rapporteur for the present session. Frederico Saraiva Nogueira accepted this invitation.

### **EC-XLVIII, Dec. 2.2**

#### **Rapporteur**

1. The Executive Council designates Frederico Saraiva Nogueira (Brazil) Rapporteur for its present session to assist the Chair and the Executive Secretary in the preparation of the summary report of the Session. Thomas Gross will be the editor of the report for the Secretariat.

### **3. ARRANGEMENTS FOR THE 28th SESSION OF THE ASSEMBLY**

#### **3.1 DESIGNATION OF STATUTORY COMMITTEES**

- 6 The Chair reminded the Executive Council that, in the designation of the three Statutory Committees for the Assembly (Nominations, Resolutions and Financial Committees), it may submit proposals on their composition, but that the ultimate decision as to that composition, including the Chairpersonship of each Statutory Committee, remains entirely with the Assembly. Chairman Byun indicated that he would not read out the names of the Member States wishing to participate in the various Committees by show of hands during the Assembly with the exception of the Nominations Committee. Only the names of the Member States present and participating in the Committees and sessional working groups were to be listed in the final report of the Assembly. Meetings of the Financial Committee would benefit from English/French interpretation.

### **EC-XLVIII, Dec. 3.1**

#### **Sessional Committees**

1. Pursuant to Rule of Procedure No. 12(2) the Executive Council, acting as the Steering Committee of the Assembly, recommends to the Assembly the formation of each of the following committees:
2. Financial Committee: under the chairship of Peter Haugan (Norway). Ksenia Yvinec provides the Secretariat support to the Financial Committee.
3. Resolutions Committee: under the chairship of Terry Schaefer (USA). Julian Barbière provides the Secretariat support to the Resolutions Committee.
4. Nominations Committee: under the chairship of Javier Valladares (Argentina). Thorkild Aarup provides the Secretariat support to the Nominations Committee.

#### **3.2 CONSIDERATION OF REQUESTS FOR SUPPLEMENTARY ITEMS**

- 7 The Chair informed the Executive Council that, under Rules of Procedure 8, 9 and 11.2, dealing with the preparation of the agenda for the Assembly, no request for a supplementary item was received at the Secretariat by 18 April 2015 (two months before the date of the opening of the 28<sup>th</sup> session.)

#### **3.3 SESSIONAL WORKING GROUPS**

- 8 The Chair invited Member States to propose sessional working groups by briefly explaining the scope of their work expected during the Assembly session.

9 A sessional working group for the Future of IOC was proposed by Portugal and seconded by France, Russian Federation, Columbia and Togo. The chair of the intersessional working group for the Future of IOC, Prof. Peter Haugan, agreed to chair the sessional working group.

10 The prospective chair, Sateesh Shenoi of the IIOE-2 working group, informed the session that the working group will review development of the Strategic Framework for Implementation of the IIOE-2 and review the draft Resolution, IOC-XXVIII/DR.(5.3) to be presented to the Assembly.

11 The prospective chair, Craig McLean of the Review of GEBCO working group, informed the session that the working group would review the continued engagement of the IOC in GEBCO, in view of the increased role of the IHO and the progressive reduction of IOC's involvement and support for GEBCO over the past few years.

12 The prospective chair, Prof. Adoté Blim Blivi of the IOC Capacity Development Strategy and Draft Resolution working group, informed the session that the working group would provide an opportunity for Member States to review IOC-XXVIII/DR.(9.1) which will adopt the IOC Capacity Development Strategy for 2015–2021. The working group will develop ideas for activities and capacity development work plans specified in the Strategy and enumerated in the Draft Resolution.

### EC-XLVIII, Dec. 3.3

#### Sessional Working Groups

The Executive Council,

1. Having examined the revised provisional agenda for the 28<sup>th</sup> session of the Assembly,
2. With a concern to ensure a smooth running of the Assembly, and
3. With no prejudice to decision of the Assembly and its chair on establishing a sessional working group as needed during the discussion of any agenda item,
4. Recommends to the Assembly the establishment of the following working groups at the beginning of its session under agenda item 2.3:

- a sessional working group on International Indian Ocean Expedition 2 (IIOE-2) (5.3) under the chairship of Sateesh Shenoi (India). Nick D'Adamo provides the Secretariat support to the group;
- a sessional working group on the review of GEBCO (item 6.2) under the chairship of Craig McLean (USA). Julian Barbière provides the Secretariat support to the group;
- a sessional working group on the IOC Capacity Development Strategy and Draft Resolution (9.1) under the chairship of Prof. Adoté Blim Blivi (Togo). Peter Pissierssens provides the Secretariat support to the group;
- a sessional working group on the Future of IOC under the chairship of Peter Haugan (Norway). Ksenia Yvinec provides the Secretariat support to the group.

### 3.4 TIMETABLE AND IOC MEMORIAL LECTURES

13 The Chair briefly presented the provisional timetable for the Assembly and the sequence of meetings with this Council session followed by an Ocean Science Day before the start of the Assembly (18–25 June 2015). Chairman Byun presented the Ocean Science Day as an initiative of the IOC Officers, which featured both IOC A. Bruun and N.K. Panikkar Memorial Lectures and two other panel discussions. The Head of the Ocean Science Section, Luis Valdés presented the programme of that day (IOC-XXVIII/Inf.2).

14 The IOC Officers decided to institute an Ocean Science Day during the week of the IOC Assembly dedicated to outstanding scientists of the A. Bruun and N.K. Panikkar Memorial Lectures and to topics on emerging ocean issues.

#### **EC-XLVIII, Dec. 3.4**

##### **Timetable for the 28<sup>th</sup> session of the Assembly**

The Executive Council,

1. Taking into consideration the comments made by the Officers, the reporting of sessional working groups and statutory committees in plenary and scheduled invitation of speakers,
2. Accepts the provisional timetable for the 28<sup>th</sup> session of the Assembly as set out in document IOC-XXVIII/1 Add. Prov. with the addition of a session of the Future of IOC working group.

#### **4. DATES AND PLACE OF THE 49<sup>th</sup> SESSION OF THE EXECUTIVE COUNCIL AND PROPOSAL FOR DATES AND PLACE OF THE 29<sup>th</sup> SESSION OF THE ASSEMBLY**

15 The Chair reminded the Council that the Assembly and the Executive Council did not give clear indication of duration and dates for their next session. Based on the experience of holding both the Executive Council and Assembly sessions on a reduced budget without emergency funds during the 2014–2015 biennium, the Officers recommended that the Assembly should adopt the same scheme for the next biennium, 3.5 days for the Executive council and 6 working days for the Assembly. The benefit of a one-day scientific forum in connection to the Assembly session would be evaluated by the Assembly at its 28<sup>th</sup> session.

#### **EC-XLVIII, Dec. 4.**

##### **Dates and places of next sessions of the Executive Council and Assembly**

The Executive Council,

1. Taking into account both the level of funding provided for the organization of the IOC governing body sessions in the 38 C/5, and the new programming cycle of UNESCO,
2. Considering the experience gained during the 2014–2015 biennium,
3. Recommends to the Assembly to carefully consider the items to be on the agenda of the 49<sup>th</sup> session of the Executive Council so that it fits in a session of a duration not longer than four consecutive working days;
4. Recommends also to the Assembly to identify any potential calendar conflicts with important meetings over the period 7–10 June 2016 for the 49<sup>th</sup> session of the Executive

Council and a period of six working days preceded by a one-day session of the Executive Council over a period to be decided in June/July 2017 for the 29<sup>th</sup> session of the Assembly.

## 5. ADOPTION OF THE SUMMARY REPORT

### EC-XLVIII, Dec. 5.

#### Report

The Executive Council,

1. Having considered the draft summary report of the session (IOC/EC-XLVIII/3s prov.) presented to it in plenary session at 17:10 on 16 June 2015,
2. Adopts the summary report of its 48<sup>th</sup> session as the Executive Council recommendations to the Assembly at its 28<sup>th</sup> session.

## 6. CLOSURE

16 The Chair closed the 48th session of the Executive Council at 17:10 on 16 June 2015.





### **3. 제28차 IOC 총회 회의록 (IOC 공식 영문 회의록)**





Restricted distribution



**IOC-XXVIII/3 prov. Pt.1**

Paris, 26 June 2015

Original: English

**INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION  
(of UNESCO)**

**Twenty-eighth Session of the Assembly**

UNESCO, Paris, 18-25 June 2015

**PROVISIONAL SUMMARY REPORT**

**Part 1**

(Agenda items 1, 2, 3.1-3.4 & 4 (partial))

Unedited version as adopted on 25 July 2015 in plenary session

## 1. OPENING

1 The Chair, Mr Sang-Kyung Byun, opened the 28th Session of the IOC Assembly at 10:00 on Thursday 18 June 2015 in Room II at UNESCO Headquarters. He welcomed the new officers recently elected in the following subsidiary bodies of the Commission: IOCARIBE, WESTPAC, IODE, IPHAB, ICG/IOTWS and ICG/PTWS.

2 UNESCO Director-General, Irina Bokova, addressed the IOC Assembly. The Director-General stressed the importance of the role of the ocean within the sustainable development agenda, congratulated the IOC on the successful UN World Oceans Day event, and recalled the Rio+20 thematic priority of the ocean for development, livelihood and science. The Director-General complemented the commission on successful work within limited resources, and supported the autonomy of the Commission within UNESCO. The Director-General thanked the outgoing officers for their commitment and contributions to the commission. (Annex \_\_\_). [To be continued in Part 3]

3 The Chair asked participants to stand for a minute of silence to honour distinguished individuals who had participated in the work of the Commission and have passed away during the past year: Demetrio de Armas Pérez (1949–2015, Spain), Neil John Campbell (1925–2014, Canada), Lev Karlin (1947–2014, Russian Federation), Laurence Mee (1951–2014, U.K.), Kostas Nittis (1964–2014; Greece), Desmond Scott (1923–2015, U.K.), past Executive Secretary of IOC.

The Chair invited participants to visit the poster exhibition which illustrates the activities of IODE, WESTPAC and Tsunami programme and its collaboration with other IOC programmes in the Foyer. He thanked, on behalf of the Assembly, the Marine Technology Society (USA) for hosting the reception at the end of the opening day, the Government of Flanders (Belgium) for the SPINCAM cocktail, and several partners for sponsoring coffee/tea services and events during the session: Permanent Delegation of Japan to UNESCO, Scientific Committee on Oceanic Research (SCOR), Institute of Marine Engineering, Science & Technology (IMarEST), Permanent Delegation of Republic of Korea to UNESCO, Permanent Delegation of United States of America to UNESCO, Permanent Delegation of Germany to UNESCO, and Permanent Delegation of India to UNESCO,.

4 The representatives of xxx Member State 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: France and USA.

## 2. ORGANIZATION OF THE SESSION

### 2.1 ADOPTION OF THE AGENDA

5 The Chair reminded that the Executive Council, acting as the Steering Committee for this Assembly session, examined the revised provisional agenda for the session and noted there was no request for supplementary items. The chair also reminded that the A. Bruun and N.K. Panikkar Memorial Lectures, 2015, which were previously included as part of the Assembly session, were organized during the Ocean Science Day that took place the day before the Assembly.

6 The Assembly appreciated the structural changes of the action paper used in

recent years to economize in light of funding difficulties, but recognized that the concise sessional reporting may limit description of background discussions.

7 The representatives of one Member State took the floor.

## 2.2 DESIGNATION OF THE RAPPORTEUR

See Decision IOC-XXVIII, Dec. 2 II. hereafter.

## 2.3 ESTABLISHMENT OF INTRASESSIONAL COMMITTEES AND WORKING GROUPS

8 Referring to the recommendations made by the Executive Council (EC-XLVIII/Dec.3.1 and 3.3) at its 48<sup>th</sup> session on this item, acting as the steering committee for the present session, the Chair reminded of the mandate of the three sessional committees, the open-ended composition thereof, and the working arrangements made for their meetings.

9 With reference to the recommendations of the Executive Council, the Chair proposed the establishment of four sessional working groups on: the International Indian Ocean Expedition 2 (IIOE-2); the review of GEBCO; the IOC Capacity-Building Strategy and the related Draft Resolution; and the Future of IOC. He then invited proposals for additional sessional working groups and received none.

## 2.4 INTRODUCTION OF DOCUMENTATION TIMETABLE AND MEMORIAL LECTURES

10 The Executive Secretary introduced this item. He reviewed briefly the list of working documents and reminded the Assembly that the report would be focused on decisions. Referring to IOC-XXVIII/Inf.1, the Executive Secretary reminded that draft decisions would be agreed to during the discussion of each agenda item. The Action Paper was intentionally drafted as a pre-report in order to streamline the reporting process during the session. Taking into account the feedback from Member States at sessions of IOC governing bodies since 2012, a summary of the discussion that led to the decision under each agenda item was to be drafted during the session and was to be submitted to Member States under item 12 for adoption as possible during the plenary session or alternatively by correspondence after the session. Dr Ryabinin invited delegates to consider the online evaluation questionnaire concerning governing body session working arrangements as early as possible and to complete it before the discussion on working arrangements in item 12. Member States that wished to have specific, particularly important, plenary interventions recorded, were invited to provide written records thereof in one of the four working languages of the Commission, to be annexed to the report, in their original language as an informational annex to this report. A template and a dedicated e-mail address ([iocgovbody@unesco.org](mailto:iocgovbody@unesco.org)) was set up to this end.

11 With reference to the timetable for the session, the Executive Secretary informed about the interpretation arrangements during the session. Meetings of the Financial Committee benefitted from English/French interpretation. An inquiry about the wish of Member States to continue to provide interpretation during future meetings of this committee was added to the evaluation questionnaire for the session.

12 The Executive Secretary drew some conclusions on the Ocean Science Day that took place the day before the Assembly opening in the working languages of the commission. He acknowledged supports from Norway for the organization of the event and invited comments on this initiative of the Officers. He also mentioned for the record of this Assembly that the IOC Anton Bruun Memorial Lecture and N. K. Panikkar Memorial Lecture 2015 were delivered during the Ocean Science Day respectively by Lora E. Fleming on “Oceans, Health and Wellbeing: the Next Frontier” and John Field on the “From the Indian Ocean to the World Ocean and back in 50 years”. Following their presentation Ms Fleming was awarded the IOC Anton Bruun medal and Mr John Field the IOC N.K. Panikkar Medal.

13 The Assembly noted that all documentation of the Session were not posted in a timely manner and encouraged the Secretariat to work harder to complete most documentation two months in advance of the Session as stated in Rule of Procedure 11.

14 The Assembly expressed great satisfaction with the Ocean Science Day, and applauded the quality of the presentations. The sense of the Assembly seemed to be to continue the activity in future sessions (see IOC-XXVIII, Dec.11.4).

15 The representatives of three Member States took the floor. The following Member State chose to provide records of their plenary intervention on this agenda item for the informational annex to the meeting report: Brazil, Malaysia.

16 The Assembly adopted Decision IOC-XXVIII,Dec.2 below.

The Assembly,

#### **I. Agenda**

Adopts the agenda and the timetable of work as set out in document IOC-XXVIII/1 Prov. Rev. and Add. Rev.

#### **II. Rapporteur**

On a proposal of Argentina, seconded by Brazil,

Designates Mr Carlo Elisca S. Cerome of Haiti Rapporteur for its present session to assist the Chairperson and the Executive Secretary in the preparation of the draft provisional report of the Session;

#### **III. Sessional Committees and Working Groups**

Establishes the following sessional open-ended committees and four working groups and referred to them the following agenda items and responsibilities:

- Financial Committee (to examine the financial implications of draft decisions/resolutions, work plans of subsidiary bodies: under the chairmanship of Professor Peter M. Haugan (Norway) with the following Member States declaring their wish to participate: Australia, Spain, Germany, South Africa, Kenya, USA, Japan, Russian Federation, Malaysia, UK, Côte d'Ivoire, China, Belgium, Brazil, Canada, Cameroon, Greece, India, France, Turkey, Portugal, Trinidad and Tobago, Republic of Korea, Thailand, Mauritius, Argentina, Denmark, Egypt. Ms Ksenia Yvinec provides the Secretariat support to the Financial Committee.
- Resolutions Committee (to report on all draft resolutions duly presented for consideration at the session –item 12: under the chairship of Terry Schaefer (USA) with the following Member States declaring their wish to participate: Argentina, Australia, USA, Malaysia, France, India, China, Turkey, Islamic Republic of Iran,

Tunisia, Japan, UK, Côte d'Ivoire, Portugal, Greece, Republic of Korea, Thailand, Ecuador. Julian Barbière provides the Secretariat support to the Resolutions Committee.

- Nominations Committee (to examine all proposals of candidates for the elections to the chair, vice-chairs and to the Executive Council at the present session, and to report on them –item 11.3): under the chairship of Javier Valladares (Argentina) with the following Member States declaring their wish to participate: Japan, USA, China, India, France, Turkey, Saudi Arabia, Spain, Cuba, Egypt, Bulgaria, Republic of Korea, Russian Federation, UK. Thorkild Aarup provides the Secretariat support to the Nominations Committee.

Establishes also:

On a proposal of the Executive Council acting as the steering committee for the present session:

- a sessional working group on International Indian Ocean Expedition 2 (IIOE-2) (5.3) under the chairship of Sateesh Shenoi (India) with the following Member States declaring their wish to participate: (to be completed in the final report). Nick D'Adamo provides the Secretariat support to the group.
- a sessional working group on the review of GEBCO (item 6.2) under the chairship of Craig McLean (USA) with the following Member States declaring their wish to participate: Argentina, Japan, France, Colombia, China, Brazil, Bulgaria, Portugal, Tunisia, Turkey, Canada, USA, Australia, Spain, Malaysia, Russian Federation, Tanzania, Ireland, Republic of Korea, UK, India, Monaco, IHO, GEBCO. Julian Barbière provides the Secretariat support to the group.
- a sessional working group on the IOC Capacity Building Strategy and Draft Resolution (9.1) under the chairship of Prof. Adoté Blim Blivi (Togo) with the following Member States declaring their wish to participate: Australia, USA, Japan, UK, Côte d'Ivoire, Senegal, Malaysia, Mauritius, Saudi Arabia, Germany, South Africa, Egypt, Kenya, China, Belgium, Brazil, Cameroon, France, India, Nigeria, Portugal, Trinidad and Tobago, Republic of Korea, Thailand, Argentina, Tanzania. Peter Pissierssens provides the Secretariat support to the group.
- a sessional working group on the Future of IOC (item 4.) under the chairship of Peter Haugan (Norway). Ksenia Yvinec provides the Secretariat support to the group, with the following Member States declaring their wish to participate: Denmark, USA, Japan, UK, Senegal, Cuba, Spain, Russian Federation, Germany, Algeria, South Africa, Argentina, Australia, Ecuador, Malaysia, Morocco, Colombia, China, Chile, Canada, Brazil, Greece, France, Finland, Indonesia, Islamic Republic of Iran, India, Pakistan, Philippines, Portugal, Turkey, Tunisia, Thailand, Republic of Korea, Egypt, Togo.

### **3. STATE OF THE IOC, ITS REGIONAL SUBSIDIARY BODIES AND ITS PROGRAMME AND BUDGET**

#### **3.1 STATEMENT OF THE CHAIR OF THE STATE OF IOC**

17 In accordance with rule of procedure 8.1(a), the Chair delivered an oral statement on recent developments in the work of the Commission and perspectives for the coming years (Annex \_\_\_\_).

18 The Assembly thanked the Chair for his presentation, and appreciated his service and leadership during his tenure as Chair of IOC (2012–2015). The Assembly

noted, in particular, the Chair and Representative of Korea's support for the regional consultative workshops on "Future of Sustained Ocean Observations and Services" and capacity development activities.

19 The representatives of nine 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, Republic of Korea, Malaysia, Tanzania.

### 3.2 REPORT BY THE EXECUTIVE SECRETARY ON PROGRAMME AND BUDGET (2014-2015) IMPLEMENTATION

20 In accordance with Rule of Procedure 8(b) and 49, the Executive Secretary reported on the implementation of the Commission's Medium-Term Strategy (2014–2021) and on its programme implementation for the period 2014–2015 since the 47<sup>th</sup> Session of the Executive Council (1–4 July 2014).

21 Dr Ryabinin started by thanking his predecessor Dr Wendy Watson-Wright under whose leadership the main part of the activities for the period concerned by the report were implemented. He mentioned the difficult conditions in which the Secretariat had to operate for the second biennium with a reduced budget and explained that IOC was able to maintain a reasonable level of activity although it was not possible to operate at optimum level in any of the programmes. He then gave an overview of the activities carried out by the Commission (IOC-XXVIII/2 Annex 1) under the six functions identified in the IOC Medium-Term Strategy 2014–2021 (IOC/INF-1314).

22 The Executive Secretary introduced the Report on Budget Execution in 2014 and reminded the Assembly of the context in which the budget was implemented. In the Zero Nominal Growth draft budget of \$ 653 M for the biennium 2014–2015 presented by the Director-General to UNESCO Member States, the budgetary allocation to the IOC for the biennium 2014–2015 was of \$ 12 M, which implied a nominal increase of approximately \$ 0.5 M compared to the previous biennium. However, in the ZNG \$ 507 M Expenditure Plan for 2014–2015 adopted by the General Conference of UNESCO at its 37<sup>th</sup> session, the actual 2014–2015 budgetary allocation to the IOC was reduced to \$ 8.6 M, or 72% of the fully-funded Programme and Budget (37 C/5).

23 This decision was brought to the attention of the IOC Member States at the 47<sup>th</sup> session of the IOC Executive Council (Paris, 1–4 July 2014), in document IOC/XLVII/2 Annex 3 rev., which also provided information on the Secretariat restructuring as well as the detailed analysis of the impact of this budgetary reduction on programme delivery under each expected result and function.

24 In its Resolution EC-XLVII.2 the Executive Council recognized 'the efforts of the IOC Executive Secretary to maintain programme continuity under these challenging circumstances and the difficulty to fully implement the guiding principles adopted by the IOC Assembly at its 27th session (Resolution XXVII-2(C), Annex 2), given that the Assembly provided its recommendation on a scenario with an allocation of 86% (and not 72%) of the 37 C/5 approved budget.' It welcomed the programmatic choices of the Executive Secretary and endorsed the Programme and Budget for 2014–2017 and Work plans for 2014–2015 contained in document



IOC/EC-XLVII/2 Annex 3 rev. as a measure to ensure programme continuity at essential level and consistent with the priorities of the Medium-Term Strategy for 2014–2021.

25 The Executive Secretary informed the Assembly of the additional allocation to the IOC of US\$ 500,000 proposed by the Director-General and approved by the UNESCO Executive Board at its 196<sup>th</sup> session. These funds will be made available from the Emergency Fund and will allow to create the much needed full-time position of the IOCARIBE Secretary in Cartagena, Colombia, as soon as possible in the current biennium.

26 He then presented to the Assembly his vision and proposals for future actions, based on the first three months in office. One of the highlights of his presentation concerned the need to improve the visibility of IOC's work as of high relevance to the societal challenges of sustainable development, in particular through its enhanced presence in the regions.

27 Interventions will be listed under 3.4.

28 The Assembly adopted Decision IOC-XXVIII,Dec.3.2 below.

### **Report of the Executive Secretary**

The Assembly,

Having examined documents IOC-XXVIII/2 Annex 1 Rev. and Addendum and IOC-XXVIII/2 Annex 2 and Corr.,

Takes note of the report of the Executive Secretary on programme and budget implementation, including the report on budget execution 2014, subject to the review of the Financial Committee in Resolution XXVIII-(11.1).

### **3.3 REPORTS BY THE CHAIRS OF THE IOC SUB-COMMISSIONS AND REGIONAL COMMITTEES**

#### **3.3.1 IOC Sub-Commission for the Western: 10<sup>th</sup> Session of WESTPAC, 12–15 may 2015, Phuket, Thailand**

29 Dr Somkiat Khokiattiwong, Chair of WESTPAC reported on the key accomplishments over the last intersessional period, and major outcomes of the 10th intergovernmental session of WESTPAC.

30 He reported to the meeting that WESTPAC has been continuously striving to strengthen the leadership of IOC/UNESCO in the region in marine research, sustained ocean observations and capacity development on the occasion of its 25th Anniversary. Some 2,150 marine scientists, governmental officials and resources managers directly took part in WESTPAC activities over its last intersessional period.

31 Dr Khokiattiwong reiterated the major accomplishments of WESTPAC reported at the WESTPAC's tenth Intergovernmental Session (Phuket, Thailand, 12–15 May 2015).

32 He reported on major decisions and recommendation of the WESTPAC-X.

WESTPAC-X approved: (i) four new regional programmes; (ii) the establishment of a Scientific Steering Committee as a primary arm to guide the development of the Indo-Pacific Ocean Observations and Services Network (SC-IPON); (iii) the establishment of an open-ended Intersessional Task Force on the Feasibility Study of the second Cooperative Study of the Kuroshio and Adjacent Regions (CSK-2); as well as other on-going activities and management, (iv) the continuous development of the IOC regional network ..; and resource centre; (v) organization of the .. international scientific symposium in 2017, Xintao, China,

33 While highlighting the strong ownership of WESTPAC by Member States, Dr Khokiattiwong also pointed out that the current grade of the head of the WESTPAC office has been a major impediment to leveraging higher political commitment. In this view he introduced two amendments to the draft decision. Several Member States provided interventions supporting the Chair's amendments to consider any possibility of appointing the Head of the WESTPAC office to an appropriate level.

34 He concluded by welcoming Sri Lanka and Bangladesh as the 21st and 22nd Member States of the Sub-Commission.

35 The Assembly noted the successful development of the programme in the region.

36 The Assembly highlighted the contribution of WESTPAC Member States and high-quality performance of the WESTPAC Office to the development and cooperation of regional marine science. The Assembly considered that the WESTPAC achievements demonstrated the great importance of IOC Regional Subsidiary Bodies for IOC as a whole to assist its Member States building/enhancing their capacity and advancing scientific knowledge to underpin the sustainability of their marine and coastal resources. Given that the WESTPAC development offered a pragmatic regional approach to enhancing IOC's global efficiency and visibility, the Assembly further suggested that its experience should be drawn on and inter-regional cooperation could be developed among all IOC Regional Subsidiary Bodies with a view to strengthening the IOC's presence at the global, regional and national levels.

37 Concrete commitments were made by many countries, which, *inter alia*, include: Thailand will continue hosting and supporting the operation of the WESTPAC Office; Indonesia and Malaysia decided to establish IOC Regional Training and Research Centers (RTRCs) respectively on Tropical Marine Biodiversity and Harmful Algal Bloom Studies; China renewed its commitments of voluntary contributions providing regular trainings in the IOC Regional Training and Research Center on Ocean Dynamics and Climate and other training facilities, conducting joint research, and hosting WESTPAC workshops and the 10th WESTPAC International Scientific Symposium; Japan and Republic of Korea will continue to make financial contributions to WESTPAC in support of its programme implementation.

38 The representatives of 13 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, Indonesia, Japan, Kenya, Republic of Korea, Malaysia, Philippines, Thailand.

39 The Assembly adopted Decision IOC-XXVIII,Dec.3.3.1 below.

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

The Assembly,

Having considered the executive summary report of the 10<sup>th</sup> Session of the IOC Sub-Commission for the Western Pacific, Phuket, Thailand, 12–15 May (IOC/WESTPAC-X/3s),

Expresses its deep appreciation to the Government of Thailand for hosting and supporting the WESTPAC Office, the Government of Vietnam for hosting and co-organizing the 9<sup>th</sup> WESTPAC International Scientific Symposium (22–25 April 2014, Nha Trang, Vietnam), the Government of China for hosting the IOC Regional Training and Research Centre on Ocean Dynamics and Climate, as well as to all other WESTPAC Member States for their financial and in-kind support provided to WESTPAC diverse activities;

Taking into account the pivotal role of the WESTPAC Office in WESTPAC's achievement over the past decade,

Requests the Executive Secretary to consider any possibility of appointing the Head of WESTPAC Office to an appropriate grade in order to leverage higher level political commitments in response to the unprecedented ever-increasing demands of its Member States, and to be in line with the practices of other UN agencies and programmes in the region;

Accepts the report of WESTPAC-X and the recommendations therein, including the workplan of the Sub-Commission for May 2015–May 2017;

Encourages WESTPAC Member States to keep the momentum of WESTPAC, and further demonstrate their ownership over all IOC programmes at regional level;

Agrees that the regular budget for these activities will be identified as part of the overall IOC Programme and Budget Resolution XXVIII-3.

### **3.3.2 IOC Sub-Commission for the Caribbean and Adjacent Region (IOCARIBE): 13<sup>th</sup> Session, 25–28 May 2015, Merida, Mexico**

40 The IOCARIBE Vice-chair Mr Arnulfo Sanchez (Panama) on behalf of the Chair Mr Francisco Brizuela (Mexico) reported on the progress achieved in IOCARIBE focal programmes for 2014–2015: the Caribbean Large Marine Ecosystem (CLME); the IOCARIBE Global Ocean Observing System Regional Alliance (IOCARIBE-GOOS); the Harmful Algal Blooms in the Caribbean and Adjacent Regions (HAB-ANCA) programme; the Integrated Coastal Area Management (ICAM) programme; the International Bathymetric Chart of the Caribbean Sea and the Gulf of Mexico (IBCCA); the International Oceanographic Data and Information Exchange (IODE) and related Ocean Data and Information Network for the IOCARIBE and South America Regions (ODINCARSA); the Caribbean Marine Atlas; and activities for Capacity Development.

41 He reported on the successful completion in 2014 of: (i) the Caribbean Large Marine Ecosystem (CLME), a 58 million GEF project; and (ii) the Caribbean Marine Atlas phase 1 (CMA1). He also noted the IOCARIBE endorsement of the development of the Caribbean Marine Atlas phase 2 (CMA2). Mr Sanchez informed the Assembly about the current and new IOCARIBE projects: "Demonstrate

Approaches for Nutrient and Sediment Reduction at Selected Pilot Study Areas in the Wider Caribbean”; “Partnership for Sustainable Management of Ocean and Coastal in Latin America (Central and South America)”, and “Design of a GEO Coastal Ocean Pilot Project” for the Caribbean Region GEO pilot Project as part of IOCARIBE-GOOS. Also, he noted IOCARIBE support to the “CIFDP-C- Coastal Inundation Forecasting Project in the Caribbean,” developed by WMO and IOC within the JCOMM framework.

42 Referring to HAB-ANCA work and IPHAB Recommendation to develop “A Plan for Improved Research and Management of Ciguatera” on a global scale, IOCARIBE supports regional participation in and implementation of the IOC Ciguatera Strategy and requested developing a project focused on Ciguatera-causing organisms, toxins, contaminated seafood and epidemiology.

43 IOCARIBE has identified the gap in ocean science capacity as a prerequisite, especially for SIDS, for sustainably managing the vast ocean spaces and resources under their national jurisdiction. IOCARIBE Member States agreed to develop an implementation plan, customized to address components of highest relevance to the region, and supported the proposed IOC Capacity Development Strategy.

44 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, the Sub-commission recommended to coordinate and facilitate Member State participation in the Global Ocean Acidification Observing Network and to contribute to the OA research.

45 Mr Sanchez stressed the need to strengthen and properly staff IOCARIBE Secretariat and invited Member States and the scientific community to actively participate in the IOCARIBE 35th Anniversary International Marine Sciences to be held in 2017.

46 The Assembly recognised the efforts carried out by IOCARIBE in capacity development and institutional strengthening. Member States noted the progress achieved in CLME and Tsunami and Other Coastal Hazards Early Warning System projects and recognised their contribution in increasing Member States capacities to ecosystem management and disaster risk reduction. IOC’s global and IOCARIBE regional programmes are partners in co-designing programmes, for example a GOOS Coastal pilot project, Ocean Teacher Global Academy Hub located in Colombia, capacity development, and a renewed focus on Ciguatera in parallel with the new IOC IPHAB Ciguatera Strategy.

47 Member States stressed the need to improve cooperation and communication between Sub-commissions, recommended developing synergies with UNESCO 2014–2021 Plan of Action for SIDS, and expressed their concern that Sub-commission secretaries should be appointed to the appropriate grade corresponding to their level of responsibility.

48 Member States welcomed the reinforcement of the IOCARIBE Sub-commission through the IOC Executive Secretary decision to restore the current IOCARIBE Secretary’s position in Cartagena and the expanded Colombian support to IOCARIBE’s staff. Member States noted their obligation to actively participate in IOCARIBE projects and programmes.

49 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.

50 The representatives of 7 Member States and GEBCO took the floor. The following Member States and organization chose to provide records of their plenary intervention on this agenda item for the informational annex to the meeting report: Dominican Republic, Kenya, USA, and GEBCO.

51 The Assembly adopted Decision IOC-XXVIII,Dec.3.3.2 below.

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

The Assembly,

Having considered the executive summary report of the 13<sup>th</sup> Session of the IOC Sub-Commission for the Caribbean and Adjacent Region (IOCARIBE), Merida, Mexico, 25–28 May 2015 (IOC/SC-IOCARIBE-XIII/3s),

Taking note of the IOCARIBE recommendation SC-IOCARIBE-XIII.1 considering the need to strengthen the IOCARIBE Secretariat and to relocate the current IOCARIBE Secretary's position to Cartagena, Colombia, and relevant IOC decision XXVII/Dec.3.3(III),

Noting with satisfaction the reinforcement of the IOC Regular Programme Budget for 2016–2017 as proposed in the Draft UNESCO Programme and Budget (38 C/5),

Welcomes the decision of the Executive Secretary to restore the current IOCARIBE Secretary's position as a full-time, Regular Programme, fixed-term post, and relocate this post to Cartagena, Colombia;

Accepts the report of IOCARIBE-XIII 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 XXVIII-3.

### **3.3.3 IOC Sub-Commission for Africa and the Adjacent Island States: 3<sup>rd</sup> Session of IOCAFRICA, 13–15 April 2015, Nairobi, Kenya**

52 The Chair of the IOC Sub-Commission for Africa and the Adjacent Island States, Dr Monde Mayekiso (South Africa), reported on the major outcomes of the 3<sup>rd</sup> session of the Sub Commission (IOCAFRICA-III, 14–15 April 2015, Nairobi, Kenya). He highlighted the activities developed in the scope of the IOCAFRICA Strategic Plan, 2014–2021 (IOC/INF-1318): training courses and workshops in the field of Application of Ocean Data and Modelling products in particular and others in the context of the fourth phase of ODINAFRICA; Regional Training centres established in four countries as part of the OceanTeacher Global Academy Project; an artwork competition for children and youth; and preparation of reports on coastal erosion problems and oceanography capacities in West Africa.

53 The IOCAFRICA programme of work for 2015–2017 has 16 action areas (Rec. IOCAFRICA-III.4).

54 The development of an ocean observations network in the region was identified as the priority area considering the little progress that has been made so far in this area.

55 The Assembly noted opportunities to develop programmes in association with the African Union Decade of the African Seas and Oceans (2015–2025).

56 China reiterated its continued support for the Sub-Commission, especially in the fields of capacity development, ocean observations and the blue economy. China will work with IOCAFRICA through their proposed Joint Coordination Committee to finalize a detailed work programme and implementation plan.

57 The Assembly expressed its gratitude to China and all Member States that have also contributed to IOCAFRICA activities: Governments of Flanders (Belgium), Republic of Korea, Kenya, Nigeria, South Africa and Spain and suggested that more Member States could strengthen IOCAFRICA by supplementing resources and staff assigned to the secretariat.

58 The representatives of 13 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, India, Kenya, South Africa, Tanzania.

59 The Assembly adopted Decision IOC-XXVIII,Dec.3.3.3 below.

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

The Assembly,

Having considered the executive summary report of the 3<sup>rd</sup> Session of the IOC Sub-Commission for Africa and the Adjacent Island States, Nairobi, Kenya, 13–15 April 2015,

Noting the progress that has been made in the implementation of the IOCAFRICA work programme, especially in capacity development, and the limited progress in development of ocean observations in the region,

Welcomes the support provided by various Member States for the development and implementation of the programmes of the Sub-Commission, including the Government of Flanders (Belgium), Republic of Korea, Nigeria, Spain and South Africa;

Urges Member States, partner organizations and programmes to support the implementation of the Work Programme (2015–2017) of the Sub-Commission;

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

Requests the IOC Executive Secretary to consider strengthening of the IOCAFRICA Secretariat through the regular budget;

Agrees that the regular budget for these activities will be identified as part of the overall IOC Programme and Budget Resolution XXVIII-3.

### 3.3.4 Report of the IOC Meeting of the Regional Subsidiary Bodies

60 The IOC Vice-chair in charge of capacity development and regions, Prof. Adoté Blivi (Togo), introduced this item. Resolutions XXV-2 and EC-XLIII.3 requested the IOC Executive Secretary to: (i) ensure that a meeting of IOC Regional Subsidiary Bodies (RSBs) and other regional activities be held in conjunction with IOC Assembly sessions; (ii) re-activate the IOC Regional Committee for the Central Indian Ocean (IOCINDIO), giving consideration to the activities of existing IOC and other relevant regional bodies; (iii) allocate resources for implementation of activities in the regions, providing an indication of the proportion of budgets of global programmes that goes towards implementing activities in each region; (iv) improve communications between IOC and its RSBs, and between regional and global programmes; and (v) explore, in consultation with Member States, the establishment where needed, of supporting facilities in those regions.

61 The meeting of the Regional Subsidiary Bodies was held on Monday 15 June 2015 prior to the Assembly under the chairship of Prof. Adoté Blivi. The meeting (IOC-XXVIII/RSB/3s) highlighted the persistent challenges the RSBs are facing and identified recurrent needs: (i) strengthen the regular budget allocations; (ii) increase the extra-budgetary resource base for the regions; reinforce the staffing of the Secretariat of the RSBs as there is only one UNESCO professional staff in the secretariat of each of the three Sub-commissions; (iii) improve the coherence and integration of IOC global and regional programmes; and (iv) increase consultations and communication between the Headquarters, the RSBs and the Member States.

62 Prof. Blivi reminded that the state of development of the Sub-commissions is uneven. Whereas WESTPAC builds results on strong ownership, commitment and investment by Member States in its region, IOCARIBE and IOCAFRICA still consider best practices that are adapted to their region. The staffing needs for a new sub-commission like IOCAFRICA (2011) are critical. The RSB meeting suggested that the Technical Secretaries, the officers of the Sub-commissions and Headquarters Secretariat meet on a regular basis to share experiences and best practices. With the recent restructuring of the IOC Secretariat at the Headquarters, the Marine Policy and Regional Coordination section (MPR) is expected to play an essential role to meet the required coordination, communication and integration needs of the Regional Subsidiary Bodies. In this regard it was noted that the new Executive Secretary actively contributed to the RSB meeting and rightly identified the difficulties and challenges facing the Sub-commissions. Prof. Blivi called also upon the Member States to provide the required level of support for the optimal operation of the RSB. He concluded that while the challenges are well known, the mechanisms for efficient and long-term solutions require further coordination and communication.

63 The Assembly noted that the key elements for solutions to meet regional needs include sharing best practices, integration and co-design of global programmes, and strengthened communication with and reporting to RSB constituencies. Ownership of the RSBs by Member States is an essential prerequisite to mobilizing and attracting resources from all Member States in support of the RSB secretariats.

64 The representatives of two 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: \_\_\_\_\_.

65 The Assembly adopted Decision IOC-XXVIII, Dec. 3.3.4 below.

### **Regional Subsidiary Bodies**

The Assembly,

Having considered the executive summary report of the meeting of the Regional Subsidiary Bodies prior to its 28<sup>th</sup> session (IOC-XXVIII/RSB/3s),

Takes note of the report of the IOC Vice-chairman for regions.

### 3.4 INTRODUCTION TO DRAFT PROGRAMME AND BUDGET FOR 2016-2017

66 In introducing the Draft Programme and Budget for 2016–2017, the Executive Secretary explained that these were elaborated by the Secretariat based on the budgetary allocations for IOC proposed by the Director-General to the 196<sup>th</sup> session of the UNESCO Executive Board in document Draft 38 C/5 and addendum. This Programme and Budget is consistent with the IOC Medium-Term Strategy for 2014–2021 (IOC/INF-1314) adopted by the IOC Assembly at its 27<sup>th</sup> session (26 June–5 July 2013) and is a direct continuation of the four-year programme defined for the period 2014–2017. It translates the strategic objectives defined in the Medium-Term Strategy into programme focus areas with clear results expected at the end of the four-year period. While the programmes are defined for the quadrennial period 2014–2017, this document covers the budget allocation to the programmes proposed for the biennial period 2016–2017, in line with the General Conference resolutions to maintain the biennial cycle for the appropriation of the budget and to move towards a results-based budgeting approach.

67 He emphasized that due to the strong support of its Member States and the high priority that they attribute to the work of IOC, the \$ 507 M Expenditure Plan of UNESCO for 2016–2017 foresees the IOC regular budget allocation, which is increased by \$ 1 M over the previously anticipated value, bringing it to \$ 9.7 M. This reinforcement is of tremendous importance given the overall situation whereby UNESCO, as a whole, faces a severe financial crisis. Nevertheless, the current budgetary allocation still represents 80% of the fully-funded scenario for 2014–2015 and 73% of the fully-funded scenario for 2016–2017.

68 With a \$ 1 M additional allocation for 2016–2017, the IOC will be finally in a position to hire a full time P4 IOCARIBE Secretary in Cartagena, Colombia. The rest of the additional funding represents only a partial restoration to the level of activity funding before 2011 for IOC. This funding would be directed to programme activities, with a particular focus on partial restoration of capacity development programmes and the strengthening of the regional sub-commissions. In particular, it is proposed to:

- strengthen tsunami and coastal sea-level hazard preparedness and awareness with focus on SIDS and LDCs,
- strengthen engagement with UN institutions and processes, including technical guidance and training for monitoring ocean SDG objectives and climate change adaptation and mitigation,



- ensure partial restoration of funding to core ocean research and observational activities which help leverage the collective contribution of all IOC Member States, including a focus on capacity development that will build local services from ocean data and forecast system infrastructure, and marine spatial planning.

69 In the ZNG+ \$ 667 M budget expenditure plan of \$ 518 M, the IOC was allocated \$ 10,155,000. Comparatively to the \$ 507 M ZNG expenditure plan, the \$ 518 M ZNG+ expenditure plan would allow IOC to assist more SIDS Member States in the transfer of marine technology, to build capacity and to respond to some of the most pressing staffing needs by creating a new professional post to coordinate the work on ocean warming and acidification.

70 The Executive Secretary informed the Assembly that the UNESCO Executive Board at its 196<sup>th</sup> session in April 2015 recommended that the Director-General should present to the 197<sup>th</sup> session of the Board and the 38<sup>th</sup> session of the General Conference a budget proposal based on the Zero Nominal Growth Plus approach. He stressed that this is indeed excellent news for both UNESCO and the IOC, that the foreseen US\$ 1.5M reinforcement of the IOC budget in the Zero Nominal Growth Plus Expenditure Plan will be recommended.

71 During discussions of Agenda items 3.2 and 3.4 the representatives of 24 Member States took the floor. The Assembly was unanimous in expressing its appreciation to former Executive Secretary Dr Wendy Watson-Wright for her commitment and leadership and in congratulating Dr Vladimir Ryabinin on his appointment. The Assembly also expressed its thanks to the new Executive Secretary for his comprehensive, rich and forward-looking presentation. All speakers expressed their full support of and commitment to work collectively on the most salient points raised by the Executive Secretary with regard to the need to increase IOC visibility through prioritization of programme activities based on clear criteria emerging from the post-2015 agenda Sustainable Development Goals, with particular regard to regional and inter-regional cooperation and the needs of Small Island Developing States and LDCs.

72 The following Member States and organization chose to provide records of their plenary intervention on this agenda item for the informational annex to the meeting report: Canada, Chile, China, India, Kenya, Republic of Korea, Philippines, Tanzania, USA and GEBCO.

73 The Assembly adopted Decision IOC-XXVIII,Dec.3.4 below.

#### **Introduction to Draft Programme and Budget for 2016–2017**

The Assembly,

Having examined document IOC-XXVIII/2 Annex 3,

Takes note of the report of the Executive Secretary's introduction on programme and budget implementation, subject to the review of the Financial Committee in Resolution XXVIII-3.

#### 4. THE FUTURE OF IOC

74 Prof. Peter M. Haugan (Norway), Chair of the Inter-sessional working group on the Future of IOC introduced this item. He informed the Assembly of the consultative process conducted in the inter-sessional period in accordance with Decision EC-XLVII/Dec.4 and presented a brief summary of the conclusions, including those achieved during the inter-sessional working group meeting on 16 June 2015 and the sessional working group meeting on 19 June 2015. Among the main outcomes of the group's discussions was the common agreement on the need to raise the awareness of the role that the IOC with its regional bodies can play as the global hub for intergovernmental ocean science cooperation, advice and information. Prof. Haugan also conveyed the emphasis put by the Group on the fact that the Commission has a unique mandate to establish a long-term, systematic ocean observing, modelling and analysis programme which is the foundation of environmental protection, sustainable development, climate change and hazard risk reduction and these commonly agreed priorities should be adequately reflected in the budgeting process.

75 He underlined the overall consensus that the IOC Governing Bodies should maintain in their agendas a mechanism to enable Member States to reflect and engage in a constructive dialogue on this highly strategic and important subject. He thanked past IOC Chair Javier Valladares (Argentina) for his contribution to the work of the group, as well as the representatives of the United Kingdom for what Prof. Haugan considered to be an extremely useful and thought-provoking *Policy Brief 'An evaluation of the Intergovernmental Oceanographic Commission's role in global marine science and oceanography'*. The Assembly was unanimous in expressing its high appreciation of Prof. Haugan's leadership in this important and strategic consultative process. The Assembly urged the elected Officers and all Member States to work even more actively and responsibly during the intersessional period to support, strengthen and promote the vision and the mission of the Commission, including through increased investments in ocean-related activities at national level and provision of extrabudgetary funds to the IOC.

76 The representatives of 20 Member States and one observer (PICES) took the floor. The following Member States or organization chose to provide records of their plenary intervention on this agenda item for the informational annex to the meeting report: Australia, Canada, Chile, China, France, Malaysia, Turkey, USA, and PICES,

[Decision to be found in Part 4]

Restricted distribution



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Paris, 26 June 2015

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**INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION  
(of UNESCO)**

**Twenty-eighth Session of the Assembly**

UNESCO, Paris, 18-25 June 2015

**PROVISIONAL SUMMARY REPORT**

**Part 2**

(Agenda items 5.1, 5.2, 6.1, 6.2, 7.1.1 & 7.1.2)

Unedited version as adopted on 25 July 2015 in plenary session

## **5. OCEAN RESEARCH**

### **5.1 STATUS REPORT OF THE IOC GLOBAL OCEAN SCIENCE REPORT (GOSR)**

1. The Head of the Ocean Sciences Section of IOC, Luis Valdés, introduced this item. The Global Ocean Science Report (GOSR) is envisaged to provide an overview on nations (i) investments, (ii) resources, and (iii) scientific productivity in Ocean Science by June 2016. It will provide a tool for mapping and evaluating the human and institutional capacity of Member States in terms of marine research, observations and data/information management, as well as a global overview of the main fields of interest, technological developments, capacity building needs and overall trends. The Global Ocean Science Report (GOSR) is part of the voluntary commitment of the IOC at Rio+20.
2. Dr Valdés reported on the number of responses received to the GOSR questionnaire and the information gathered so far on Ocean Science in IOC Member States. Furthermore some organizations provided information on different matters, in particular human resources, which was perceived as an encouraging signal for the IOC Secretariat of this exercise. While the analysis of the received information is under examination, additional information resources were identified in each chapter. A complementary approach to obtain data on research capacity and resources focused on analysing the gender and geographical distribution of scientists in a selection of international conferences and symposia within the context of international collaboration.
3. Dr Martha Crago, Vice-president Research at Dalhousie University and expert for the Canadian Ocean Science report, presented the Canada Ocean Science Report and explained how it is helping the scientific community, the policy makers, the funding agencies, and the private donors in Canada to make better decisions on ocean science matters.
4. Some Member States announced that they will complete the questionnaire soon. The Assembly suggested an extension of the questionnaire deadline to allow more Member States to respond as well. The Secretariat suggested an extension to 1<sup>st</sup> September 2015. The Assembly expected greater participation of Member States in the editorial process of the report. Dr Valdés reminded the Member States that the Editorial Board will consist of a limited number of experts selected for their expertise and capacity. The Member States will be invited to provide experts during the review process after the 49<sup>th</sup> Session of the IOC Executive Council in 2016. The Assembly stressed the importance of addressing regional needs, by analysing national plans, existing facilities and scientific expertise as specified by Member States in the questionnaires.
5. The representatives of 12 Member States and one organization took the floor. The following Member States and organization chose to provide records of their plenary intervention on this agenda item for the informational annex to the meeting report: Argentina, Australia, Brazil, Canada, India, Republic of Korea, UK, USA, and PICES
6. The Assembly adopted Decision IOC-XXVIII,Dec.5.1 below.

## Global Ocean Science Report (GOSR)

The Assembly,

Having considered document IOC/INF-1321,

Welcomes the report of the Secretariat and takes note of the progress, challenges and prospects for the achievement of a comprehensive Global Ocean Science Report;

Expresses its appreciation to the Member States who responded to the GOSR questionnaire and provided in-kind support for the project;

Recalling Decision EC-XLVII/6.2 by which the IOC Executive Council at its 47<sup>th</sup> session accepted the GOSR proposal although no Regular Programme funds were allocated for this effort,

Recognizes the challenges faced by the secretariat in implementing the GOSR with limited financial resources and personnel;

Decides to allow the secretariat to consider the use of core funding for seed funding to implement activities beyond the current capacity of the secretariat that are critical for the completion of the GOSR;

Agrees that the regular budget for these activities will be identified as part of the overall IOC Programme and Budget resolution XXVIII/DR.(11.1);

Calls upon Member States to increase their extra-budgetary contributions, secondments of staff members, and in-kind support to IOC to provide the needed resources to complete the GOSR;

Requests the Executive Secretary to facilitate the preparation of the draft of the Global Ocean Science Report according to the initial schedule and to present it to the Executive Council at its 49<sup>th</sup> session for revision and comments, as appropriate.

### 5.2 WMO-IOC-ICSU WORLD CLIMATE RESEARCH PROGRAMME (WCRP) – REPORT AND REVIEW

7. The Director of the World Climate Research Programme, David Carlson, introduced this item. Dr Carlson reported on recent progress achieved by the WCRP in improving knowledge and understanding of global and regional climate variability and change, and in developing improved numerical models and climate projections, with particular emphasis on the priorities of IOC Member States. He spoke about WCRP's on-going work coordinating research and climate projections which will have increased focus on decadal-scale and regional-scale. Dr Carlson highlighted WCRP ocean research activities under the CLIVAR project, oceanographic activities in the polar regions undertaken through the CliC (Climate and Cryosphere) international project, the activities of the WCRP Grand Challenge of Regional Sea Level. WCRP activities contribute to the IOC High-level Objectives as well as to the individual national objectives of IOC Member States as they develop ocean and climate research, mitigation, and adaptation strategies.
8. The Assembly encouraged WCRP to pursue its work on regional climate models.
9. The IOC Executive Secretary was requested to explain (on behalf of the WCRP Director) that the WCRP Regional Sea Level Grand Challenge represents an

area of close coordination and active partnership with IOC, and that the sea-level related activities coordinated by the WCRP/IOC Task Group on Sea-Level Variability and Change will be incorporated into the WCRP Grand Challenge on Regional Sea Level.

10. The representatives of three Member States took the floor. The following Member State and organization chose to provide records of their plenary intervention on this agenda item for the informational annex to the meeting report: Republic of Korea and PICES.
11. The Assembly adopted Decision IOC-XXVIII,Dec.5.2 below.

### **World Climate Research Programme (WCRP)**

The Assembly,

Recalling that IOC joined WMO and ICSU as sponsors of the WCRP in 1993;

Recalling further that the Assembly and Executive Council, since 2005, have reaffirmed continued co-sponsorship of WCRP at a level of US\$ 125,000 per annum and that Assembly at its 27<sup>th</sup> session identified IOC support as a high priority;

Taking note of the current financial difficulties of UNESCO that resulted in a reduced financial contribution to WCRP during the biennium 2014–2015;

Having considered the report of WCRP (IOC/INF-1323);

Decides to discontinue the WCRP/IOC Task Group on Sea-Level Variability and Change and requests WCRP to incorporate the sea-level related activities coordinated by that Task Group into the WCRP Grand Challenge on Regional Sea Level;

Requests WCRP to continue planning of its oceanographic activities in close cooperation with IOC;

Agrees that the regular budget for supporting WCRP activities will be identified as part of the overall IOC Programme and Budget resolution XXVIII/DR.(11.1);

Urges Member States to support the execution of this course of action through participation of their scientists as well as financial contributions to the IOC Special Trust-Fund for the WCRP.

## **6. ASSESSMENT AND INFORMATION FOR POLICY**

### **6.1 UNITED NATIONS WORLD OCEAN ASSESSMENT**

12. The Coordinator of the UN Group of Experts of the Regular Process, Alan Simcock, provided an overview on the main developments that have taken place in the preparation of the World Ocean Assessment, including the review process completed in March 2015. The UN Ad Hoc Working Group of the Whole will meet in September 2015, in New York, to consider the WOA report and summary for decision-makers to formulate recommendations to the UN General Assembly for the future implementation of the Regular Process. Mr Simcock summarised the main findings of the report including information gaps that had been identified in the conduct of the assessment as well as areas in need of further capacity development support. He also invited IOC Member States to convey to their national

representatives attending the UN Ad Hoc Working Group, the importance of strengthening the participation of IOC, as a competent organization in marine sciences, in future cycles of the WOA.

13. Julian Barbière, Head of Marine Policy and Regional Coordination Section (MPR) provided information on the support that IOC provided to the Group of Experts tasked with the preparation of the WOA report. He also highlighted the implementation of the GEF Transboundary Waters Assessment Programme (TWAP), expected to be finalized in September 2015. The TWAP marine components led by IOC will make available in the form of technical reports and global data portal, a suite of marine indicators and assessment outputs that will complement the WOA report. Finally, he highlighted recent development related to the Intergovernmental Platform on Biodiversity and Ecosystem Services.
14. 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: China, India, Republic of Korea.
15. The Assembly adopted Decision IOC-XXVIII,Dec.6.1 below.

**IOC Contribution to World Ocean Assessment and  
Other Ocean Assessment Processes (IPBES, TWAP)**

The Assembly,

Having considered document IOC/INF-1331,

Requests the Executive Secretary to continue to provide technical and scientific support to the Regular Process in accordance with UNGA resolution 67/78, including in its follow-up phase, and to disseminate the results of the World Ocean Assessment to the IOC Member States as well as in relevant international fora;

Encourages the increased participation of IOC in the work of the Intergovernmental science-policy Platform on Biodiversity and Ecosystem Services (IPBES) through OBIS and other relevant IOC programmes;

Welcomes the leading role of IOC in the conduct of the GEF Transboundary Water Assessment Programme—TWAP (Marine components);

Expresses its appreciation to the GEF, the European Commission, Governments of France, Norway, and Flanders (Belgium) for supporting IOC activities related to WOA and TWAP;

Encourages the Commission to continue to support the scientific assessments of the ocean as a mean to improve the science-policy interface;

Takes note of the preliminary information provided by the Secretariat regarding TWAP; and further takes note that the assessment will be ready in September 2015.

**6.2 REVISED TERMS OF REFERENCE OF THE GENERAL BATHYMETRIC  
CHART OF THE OCEANS (GEBCO) GUIDING COMMITTEE**

16. Mr Julian Barbière, Head of Marine Policy and Regional Coordination Section (MPR) introduced this item. He informed the Assembly of the consultative process conducted during the intersessional period in order to follow-up on decision EC-

XLVII,Dec.3.1(II), and presented a brief summary of a consolidated proposal for the revision of the terms of reference and rules of procedure (TOR-ROP) for GEBCO Guiding Committee.

17. The Chair of the Sessional Working Group on the Review of GEBCO reported on the conclusions of the group in relation to revision of the TOR-ROP. The Assembly did not support proposed paragraph 1.4 of consolidated proposal in Table 1 of document, IOC-XXVIII/2 Annex 6, concerning the participation of a graduate alumni of appropriate IHO or IOC associated tertiary level or higher ocean bathymetric mapping course in the GEBCO Guiding Committee as the Alumni observer.
18. The Executive Secretary informed the Assembly of the level of IOC involvement into the GEBCO project as one of the two parent organizations with IHO, and explained the need to review IOC's role and involvement in the GEBCO project and consider appropriate future governing mechanism of the GEBCO project.
19. Dr Ryabinin described how IOC's involvement in GEBCO, from a programmatic and financial aspect, has been progressively reduced over the past 10 years. On the other hand, IHO continues to support the GEBCO project as a primary activity. This situation has resulted in the inefficiency of GEBCO management through the existing IHO-IOC co-sponsorship. The Executive Secretary expressed the view that IOC may be better placed to facilitate and guide the use of GEBCO bathymetric data sets and products through the user communities that represents its own programmes, primarily GLOSS, GOOS, IODE, JCOMM, Tsunami as well as its regional subsidiary bodies. This approach would relieve IOC from the responsibility to support the operation of the GEBCO project, whilst still contributing to its development. In this context, the Executive Secretary suggested that the review of the project from an end-user-perspective should be initiated and should include new governance options of the project for consideration by IOC governing bodies. To this view, it was proposed that a review group composed of external experts designated through IOC programmes and Sub-commissions could take on the task of identifying concrete and potential user needs in bathymetry within the IOC community and recommend governance options for GEBCO.
20. The Assembly stressed the importance of collection of bathymetric data and ocean mapping undertaken through the GEBCO project, considering its relevance to IOC programmes and components of programmes and mechanism of cooperation, including IIOE-2 in terms of improving bathymetry for ocean mapping in the Indian Ocean.
21. The Assembly expressed concern with regard to the reduced level of IOC's involvement in the project as one of the co-sponsoring organizations, and called for the review to be carried out by external experts nominated by interested Member States in addition to those nominated through the relevant IOC programmes and Sub-commissions.
22. The representatives of 17 Member States took the floor in relation to IOC-XXVIII, Dec. 6.2 (I), and the representatives of six Member States and GEBCO took the floor in relation to IOC-XXVIII,Dec. 6.2 (II). The following Member States and GEBCO chose to provide records of their plenary intervention on this agenda item for



the informational annex to the meeting report: Brazil, Canada, Chile, China, India, Japan, Republic of Korea, Malaysia, Turkey and GEBCO.

23. The Assembly adopted Decision IOC-XXVIII,Dec.6.2 below.

**IHO-IOC General Bathymetric Chart of the Oceans  
(GEBCO) Project**

The Assembly,

**I. Revised Terms of Reference  
for the Joint IHO–IOC GEBCO Guiding Committee**

Having examined document IOC-XXVIII/2 Annex 6,

Recognizing the importance of cooperation between IOC and the International Hydrographic Organization (IHO) in the field of ocean mapping, including bathymetry;

Encourages Member States to voluntarily contribute to the improvement of global bathymetric data sets and data products of the IHO-IOC GEBCO Project;

Endorses the revised Terms of Reference and Rules of Procedure for the Joint IHO–IOC GEBCO Guiding Committee as presented in the Annex to this decision;

Requests the Executive Secretary to convey this endorsement to the IHO Secretariat, copy to the Joint IHO–IOC GEBCO Guiding Committee.

**II. Review of IOC’s Role and Involvement  
in the General Bathymetric Chart of the Oceans (GEBCO)**

Taking note of document IOC-XXVIII/2 Annex 7,

Recalling Resolution VIII-3 on the formation of the Joint IHO-IOC GEBCO Guiding Committee (1973),

Further recalling that the Memorandum of Understanding, concluded in 1984 and then revised in 2000, between the IHO and IOC, includes GEBCO and International Bathymetric Charts (IBC) as activities of common interest to both organizations and their Member States,

Considering that bathymetry is of relevance to several on-going IOC programmes, components of programmes and mechanisms of cooperation,

Decides that:

- (i) the IHO-IOC GEBCO project will be reviewed to consider IOC’s role and involvement in the project, mainly from a view point of users of GEBCO bathymetric dataset and products;
- (ii) the review will be carried out by a review group, which will be comprised of external experts nominated by IOC Member States and the chairpersons of Guiding Committee of GEBCO, GLOSS, GOOS, IODE, JCOMM, TOWS-WG, IOCAFRICA, IOCARIBE and WESTPAC, during the intersessional period by correspondence;
- (iii) the report of the review will be submitted to the Executive Council at its 49th session (2016) for consideration and further action;

Requests the Executive Secretary to establish the review group in accordance with the terms of reference as contained in Annex 2 to this decision.

**General Bathymetric Chart of the Ocean (GEBCO) Project –  
Terms of Reference and Rules of Procedure for  
the Joint IHO-IOC GEBCO Guiding Committee**

**PREAMBLE**

GEBCO was proposed in 1899 and became a reality in April 1903 when HSH Prince Albert I of Monaco offered to organize and finance the production of a new chart series designated: “The General Bathymetric Chart of the Oceans” (GEBCO), under the Prince’s Scientific Cabinet. In 1922 the responsibility for GEBCO was passed to the Director of the Oceanographic Museum of Monaco and in 1929 was transferred to the International Hydrographic Bureau (today the IHO). Since 1973, GEBCO has been a joint Project of the International Hydrographic Organization (IHO) and the Intergovernmental Oceanographic Commission (IOC) of UNESCO.

The goals of the IHO-IOC GEBCO Project are to:

1. Develop and constantly improve the portrayal of global ocean depths;
2. Act as the designated international authority for undersea feature names;
3. Advance the development and application of sea floor mapping technology;
4. Encourage and facilitate ocean mapping cooperation leading to the exchange and preservation of bathymetric data and associated metadata;
5. Foster collaboration among individuals and organizations with established and developing expertise so as to assist local and regional mapping efforts to attain a global standard of quality;
6. Identify oceanic areas that are insufficiently mapped and recommend to appropriate ocean-going organizations and institutions that such areas are surveyed;
7. Promote education and training in ocean mapping through high level courses in Ocean Bathymetry acknowledged by IHO and IOC;
8. Bring together the ocean mapping community and users of bathymetry thereby leading to products that are more widely used.

GEBCO is an IHO and IOC Project that is open to all those interested in mapping the ocean floor. It relies largely on the voluntary efforts of an international collaborating community of scientists and hydrographers with the support of the IHO and the IOC.

GEBCO is led by the Joint IHO-IOC GEBCO Guiding Committee.

**Terms of Reference**

The GEBCO Guiding Committee shall:

1. Guide the IHO-IOC GEBCO Project, under the general governance of IHO and IOC while recognising and following IHO and IOC policies.
2. Prepare and disseminate maps, grids, data files and other appropriate depictions of the ocean floor.
3. Identify the needs of the various user communities of the bathymetry of the world’s oceans, study the ways and means whereby these needs can be met.
4. Identify the necessary resources, both human and financial, for its undertakings and make appropriate recommendations to its parent organisations.
5. Stimulate the flow of data relevant to the GEBCO Project by actively identifying sources of new data and encouraging and promoting the release of data to

appropriate data banks, with the objective of ensuring that maximum available data are provided to the IHO Data Centre for Digital Bathymetry (DCDB).

6. Supervise the development, maintenance and routine updating of GEBCO products. Activities are to include but are not restricted to:
  - (1) Study and set out procedures for new compilations of bathymetry.
  - (2) Develop standards and methodologies for the production of bathymetric maps and grids and recommend their adoption to the IHO and IOC and to the seafloor mapping community.
  - (3) Supervise the development, production and updating of a worldwide grid of digital bathymetric data.
  - (4) Supervise the preparation and maintenance, in association with national and international bodies, of an authoritative IHO/IOC GEBCO Gazetteer of Undersea Feature Names.
  - (5) Study and implement the best distribution mechanism for the effective use of GEBCO products by all users.
7. Investigate and develop appropriate logistical and financial arrangements necessary for the furtherance of the GEBCO Project, recognising and taking into account the relevant IHO and IOC policies, and seeking the assistance of the Secretariats of the IHO and IOC as appropriate.
8. Integrate into its products the geographical names of undersea features that appear in the IHO-IOC GEBCO Gazetteer of Undersea Feature Names.
9. As required, establish subordinate bodies (sub-committees and working groups) to fulfil the Committee Work Programme and approve the Terms of Reference and Rules of Procedure of those bodies, reviewing annually the continuing need for each subordinate body. The GEBCO Guiding Committee will report annually and intersessionally if necessary, to the IHO and IOC for endorsement on the status of subordinate bodies and encompass their comments before establishing, reviewing, modifying, and/or terminating subordinate bodies; actions which must be included as GGC agenda items to allow sufficient prior consideration by the IHO and IOC secretariats and member states.
10. Direct and monitor the work of its subordinate bodies.
11. Engage with regional mapping projects to encourage their compatibility with, and eventual inclusion in, GEBCO products.
12. Build capacity by encouraging and enabling the training and scientific education of new generations of ocean mapping operational experts worldwide.
13. Pursue, in dialogue with the IHO and IOC, policies that facilitate the suitability of GEBCO products not only for scientific users but also, where appropriate, for educational and socio-economic purposes in the broadest sense.
14. Take all practical opportunities to advocate the scientific and societal benefits of mapping the seafloor.
15. Report annually to the IHO and to the IOC, through their respective governing bodies and should also propose activities to be considered in the IHO's and IOC's work programmes, identifying and requesting, where necessary, the required funding support.
16. Prepare an annual GEBCO Work Plan and budget and propose it to each meeting of the IHO and the IOC, through their respective governing bodies. The Guiding Committee should consider and submit to the IHO and IOC governing bodies

proposals for new work items under the GEBCO Work Plan, taking into account the financial, administrative and wider stakeholder consequences.

17. Monitor the execution of the GEBCO Work Plan and receive reports from its Subordinate Bodies, including an evaluation of performance and progress achieved against agreed objectives.

## **Rules of Procedure**

### **1. Membership**

- 1.1 The Committee shall consist of five Members appointed by the IHO, and five Members appointed by the IOC. The Secretariats of the IHO and IOC, in close consultation with the Committee Chair, will seek to strive that all appointed Members are, as far as possible, from different regions so as to achieve a balanced and diverse representation.
- 1.2 Appointed Members shall serve for a term of five years, renewable by a majority recommendation of the Committee for one additional five-year term and with the approval of the corresponding parent organization. The Chair shall inform the relevant parent organization of any foreseeable vacancy in a timely manner.
- 1.3 The Chairs of GEBCO Sub-Committees established under Article 9 of the Terms of Reference and the Director of the IHO Data Centre for Digital Bathymetry (DCDB), shall also be voting Members of the Committee. If a Member of the Committee mentioned under paragraphs 1.1 and 1.2 above is also the Chair of a subordinate body, that Member shall have only one vote on the Committee.
- 1.4 Representatives of the Secretariats of the IHO and the IOC shall be permanent Observers in the Committee. The Secretariats of the IHO and IOC will also be recognised as permanent Observers in all subordinate bodies established by the Committee.
- 1.5 The Committee may invite other suitably qualified individuals to take part in specific meetings as Expert Contributors.
- 1.6 Members of the Guiding Committee serve as experts<sup>1</sup> in their personal capacity rather than as representatives of their organization and/or country.
- 1.7 Members are expected to attend every meeting of the Committee. Members who are absent for two consecutive meetings will normally be considered to have resigned and new nominations shall be sought. No substitution shall be allowed at meetings.
- 1.8 Business may be conducted between meetings by appropriate communication systems.
- 1.9 All documents related to meetings and decisions of the Committee and Sub-Committees and other relevant documents will be posted on the GEBCO web site linked to the IHO and IOC web sites.

### **2. Office Bearers**

- 2.1 The Chair and Vice-Chair shall be elected by the Committee from the voting Members of the Committee and normally should be from different parent organizations. The Chair and Vice-Chair are each elected for up to a five-year term, but not exceeding their current membership of the Committee. They can be re-elected for one additional term by the Committee. The Chair shall conduct the business of the Committee. If the Chair is unable to carry out the duties of the office, the Vice-Chair shall assume the Chair with the same powers and duties.

2.2 The Committee shall appoint a Secretary for a five-year term which can be renewed by the Committee. If resources permit and at the Committee's request, a secretary may be provided by either the Secretariat of the IHO or the IOC. The function of the Secretary shall be defined by the Guiding Committee.

### **3. Meetings**

3.1 Representatives from Member States of IHO and IOC may participate as observers in Committee meetings.

3.2 Meetings shall be held at least every two years. The venue and date of the next meeting will normally be decided at the previous meeting, in order to facilitate participants' travel arrangements.

3.3 The quorum to hold a meeting shall be two more than half of the voting Members of the Committee.

3.4 An extraordinary meeting can be called by the Chair or any Committee Member, with the agreement of the simple majority of all voting members of the Committee.

3.5 The working language of the Committee shall be English.

3.6 The Committee shall strive to make decisions by consensus. If consensus cannot be reached, decisions shall be taken by simple majority vote of the Members entitled to vote. The Chair shall have the casting vote if there is a tie.

### **4. Amendment and Revision**

4.1 These Terms of Reference and Rules of Procedure shall be endorsed and approved by the IHO and IOC according to their current procedures. The Committee may propose to IHO and IOC changes to these Terms of Reference and Rules of Procedure with the approval of two thirds of the Committee. Any changes shall enter in force after being endorsed and approved by both IHO and IOC.

#### Annex 2 to IOC-XXVIII/Dec.6.2 (II)

### **Terms of Reference of the Review Group with regard to IOC's Role and Involvement in the GEBCO Project**

#### **(Objective)**

The review group shall:

- (i) Generally consider IOC's role and involvement in the GEBCO project, and specifically identify the user needs in bathymetry from the relevant IOC programmes and regional subsidiary bodies in relation to the GEBCO bathymetric dataset and products;
- (ii) Consider IOC's role and involvement in the GEBCO project, based upon needs identified under (i) above;
- (iii) Recommend key elements for future governing mechanism of the GEBCO project in relation to IOC's role and involvement.

#### **(Composition)**

The review group shall be comprised of representatives of IOC Member States and one expert each from the GEBCO Guiding Committee, GOOS, GLOSS, JCOMM, IODE, TOWS-WG, IOCAFRICA, IOCARIBE and WESTPAC.

The experts will be appointed by the IOC Executive Secretary through nomination by the chairpersons of the said IOC programmes and regional subsidiary bodies.

The review group will elect its own Chair.

**(Functions)**

The review group should conduct the review of the GEBCO project in line with the above-mentioned objectives, in consultation with the relevant IOC programmes and regional subsidiary bodies as well as the IHO, mainly based on a questionnaire developed by the Secretariat.

The review should be produced by the review group and submitted in draft form by its representative to the GEBCO Guiding Committee for their comments. A report should be submitted to the next ordinary session of the Executive Council (June/July 2016).

**(Working arrangements)**

The review group should conduct its business by electronic means.

## **7. OBSERVING SYSTEMS AND DATA MANAGEMENT**

### **7.1 OBSERVING SYSTEMS**

#### **7.1.1 Global Ocean Observing System**

24. The co-chair of the IOC-WMO-UNEP-ICSU Global Ocean Observing System Steering Committee (GOOS SC), Eric Lindstrom, introduced this item. Through Resolution XXVI-8 (2011), the Assembly decided that the GOOS SC would "produce a biennial work plan for consideration [...] and adoption by the Assembly." It also decided that amongst the membership of the GOOS SC "five experts will be appointed by Member State 'Electoral Groups' during the IOC Assembly, one from each group." The GOOS work plan is focused on: (i) articulating goals and milestones for the implementation of global sustained ocean observations responding to the needs for climate information, ocean services, and sustaining ocean health, through a GOOS Strategic Mapping; (ii) exercising the Framework for Ocean Observing by defining requirements, coordinating observing elements, and evaluating the observing system and its outputs; (iii) improving GOOS Regional Alliance implementation; and (iv) developing GOOS Projects.
25. Dr Lindstrom reported on the status of GOOS as an observing system and programme, its engagement with partners and the scientific community, and the activities of the GOOS Steering Committee and its panels. The capabilities of GOOS to deliver for climate, ocean-related services, and ocean health are slowly improving, even as risks to the sustainability of some *in situ* observing elements are present. Mitigating these risks depends on linking continuity with innovation, and closely coordinating research and operational communities.
26. Recalling the limitations of IOC support for GOOS through Regular Programme human and financial resources, GOOS has prioritized the operation of the existing Physics and Climate Panel (the GCOS-GOOS-WCRP Ocean Observations Panel for Climate, OOPC) and the coordination of existing *in situ* observing networks. Extrabudgetary and in-kind support has made possible modest developments of the activities of the GOOS Biogeochemical Panel (led by the SCOR-IOC International Ocean Carbon Coordination Project, IOCCP), the GOOS

Biology and Ecosystems Panel, engaging the remote sensing agencies, and the fostering of cooperative work amongst GOOS Regional Alliances.

27. In-kind support, in particular from the USA (through voluntary contributions to the GCOS Office at WMO and US-based staff), Australia (through the hiring of an International Project Officer to support the GOOS Biology and Ecosystems Panel) and the European Commission (through the GEOWOW project) have permitted the GOOS programme activities to define biogeochemical Essential Ocean Variables supporting climate and ocean health objectives, to develop the Framework for Ocean Observing to incorporate increasing needs for sustained observations in support of ocean health, to engage the GOOS Regional Alliances in identification of common projects, and to improve community networking through webinars and e-mail updates. Several regional and thematic development projects are underway, and will strengthen elements of GOOS by evaluating requirements, observing networks, data management and delivery, engaging stakeholders, and evolving the observing system. These include the Tropical Pacific Observing System in 2020 project, the Deep Ocean Observing Strategy, and the EC Horizon 2020 AtlantOS project.
28. Dr Lindstrom presented the GOOS Strategic mapping linking societal benefit, applications, Essential Ocean Variables and the observing networks, as well as a clarification of how the structures of GOOS work in the areas of scientific oversight, coordination of observations execution (closely with JCOMM), and innovation through projects. He introduced the proposed GOOS Work Plan for 2016–2017 as presented in the report of the GOOS SC-IV report.
29. The Assembly stressed the importance of GOOS in delivering on all of IOC's High Level Objectives, and supported its expansion from physical to biogeochemical and biological variables, envisioning the development of standards and systems adding to those already available for physical variables. The Assembly supported the improved links to regional ocean observing efforts through the GRAs, the project approach to developing GOOS in particular regions or themes, and the close link to JCOMM. The Assembly noted the importance of improved communications and strengthened capacity development to further develop GOOS, the importance of coastal observations, as well as the importance of maintaining links to information generation activities that underpin societal benefit from ocean observations.
30. The representatives of 13 Member States took the floor. The following Member States and organization chose to provide records of their plenary intervention on this agenda item for the informational annex to the meeting report: Australia, Canada, India, Japan, Republic of Korea, Thailand, Turkey, USA and PICES.
31. The Assembly adopted Decision IOC-XXVIII,Dec.7.1.1 below.

### **Global Ocean Observing System**

Assembly,

#### **I. GOOS Work Plan**

Noting the fundamental role of global sustained ocean observations through GOOS in enabling ocean research, provision of early warning and ocean services, development of assessments and information for policy, sustainable management

and governance of the ocean, and therefore all functions of the IOC Medium-Term Strategy,

Having examined the executive summary report of the Fourth Meeting of the Global Ocean Observing System Steering Committee (May 2015, IOC/GOOS-SC-IV/3s),

Agrees to the GOOS Work Plan for 2016–2017 (IOC/GOOS-SC-IV/3s, Annex 1);

Notes the financial and human resource implications of the work plan and the shortfall against the draft IOC Programme and Budget allocation for GOOS (IOC/GOOS-SC-IV/3s, Annex 2);

Expresses its appreciation for the in-kind and direct support to the GOOS programme provided by Australia, the European Commission, and the USA;

Agrees to adopt the GOOS programme and budget as part of the overall IOC Programme and Budget resolution XXVIII/DR.(11.1); and

Urges Member States to support the GOOS Work Plan through cash contributions to the IOC Special Account for GOOS, secondments of staff members to the GOOS Project Office, in-kind support such as hosting meetings or workshops with participant funding, the establishment of GOOS support offices, the funding of GOOS projects, or other means as agreed by the GOOS-SC.

## II. GOOS SC Regional Membership

Recalling the GOOS-SC regional membership appointment defined in IOC Resolution XXVI-8, and further recalling IOC Circular Letter, 2570, requesting nominations of experts for appointment by Member State Electoral Groups;

Notes the appointment by each of the Member State Electoral Groups of a regional expert member of the GOOS SC for 2016–2017:

- Glenn Nolan, Ireland (Group I)
- Atanas PALAZOV, Bulgaria (Group II)
- Frederico NOGUEIRA, Brazil (Group III)
- Ramasamy VENKATESAN, India (Group IV)
- Kouadio Affian, Côte d'Ivoire (Group V).

### 7.1.2 WMO-ICSU-IOC-UNEP Global Climate Observing System (GCOS)

32. The Director of the WMO-ICSU-IOC-UNEP Global Climate Observing System (GCOS), Carolin Richter, introduced this item. GCOS responds to the needs of Member States for comprehensive, continuous, reliable climate and climate-related data and information: for climate monitoring, research, and projections, and increasingly to assess climate impacts, monitor the effectiveness of mitigation, support adaptation, develop climate information services, and promoting sustainable development.

33. Dr Richter presented the outcomes of a comprehensive independent review of the GCOS programme, undertaken by its four sponsors. The review was motivated by new developments including the establishment of the Global Earth Observation System of Systems (GEOSS), increased attention on adaptation to climate change, outcomes of the Fifth Assessment Report of the Intergovernmental Panel for Climate Change (IPCC), the development of the Global Framework for Climate Services



(GFCS), and evolving scientific research programmes such as Future Earth and the Programme of Research on Climate Change Vulnerability, Impacts, and Adaptation (PROVIA). The review recognized the significance of the programme, the normative work of GCOS in defining guidelines and setting principles, and made 18 recommendations to assist the sponsors in their consideration of action to support the GCOS programme. The GCOS Steering Committee has already responded to a number of these recommendations.

34. The Global Ocean Observing System (GOOS) is a key contributor to the atmospheric, oceanic, and terrestrial domains covered by GCOS. The strong link is evident in the joint sponsorship of the GCOS-GOOS-WCRP Ocean Observations Panel for Climate (OOPC), which for GOOS is the Physics and Climate Panel. The secretariat for OOPC has been hosted by GCOS since 2013. The OOPC now draws on the work of its sister GOOS panels (Biogeochemistry, Biology and Ecosystems) in the definition of requirements, coordination of observations, and evaluation of outputs for biogeochemical and biological Essential Climate Variables (ECVs), a subset of Essential Ocean Variables (EOVs) that respond to the climate theme in the GOOS Strategic Mapping. Dr Richter expressed her appreciation for the ongoing IOC financial sponsorship of GCOS in 2013, 2014, and 2015.
35. Dr Richter recalled that the UN Framework Convention on Climate Change (UNFCCC) invited GCOS, through its Subsidiary Body on Scientific and Technological Advice (SBSTA) to submit a Status Report on the status of each Essential Climate Variable, progress against the GCOS Implementation Plan (GCOS-138, 2010), and gaps, to its 43<sup>rd</sup> session at COP-21 in December 2015; and a new GCOS Implementation Plan considering new developments, to its 45<sup>th</sup> session at COP-22 in December 2016.
36. The Assembly stressed the strong link between the work of GOOS and GCOS in securing sustained ocean observations for climate and other societal benefit areas, as well as the importance of the visibility gained within the UN Framework for Climate Change (UNFCCC) afforded by the GCOS cycle of reporting. The Assembly welcomed the extension of climate observations to biogeochemical and biological variables, and in responding more closely to regional priorities.
37. The representatives of two Member States and one programme took the floor. The following Member State chose to provide records of their plenary intervention on this agenda item for the informational annex to the meeting report: Canada.
38. The Assembly adopted Decision IOC-XXVIII,Dec.7.1.2 below.

#### **WMO-ICSU-IOC-UNEP Global Climate Observing System (GCOS)**

The Assembly,

Recalling the 1998 Memorandum of Understanding between WMO, IOC, UNEP, and ICSU on the Global Climate Observing System,

Having considered the GCOS planning and implementation (IOC/INF-1326) and the Synthesis report of the GCOS Review Board (GCOS-181),

Reaffirms the IOC commitment to continue as a sponsor of the Global Climate Observing System;

Expresses its appreciation that GCOS support of the OOPC has strengthened the contribution of GOOS to GCOS;

Requests the Executive Secretary to work with the other sponsors of GCOS in revising the existing Memorandum of Understanding for the GCOS Programme based on the recommendations of the GCOS Review Board; and

Urges Member States to support GCOS through cash contributions to the IOC Special Account for GCOS, support to sustained ocean observing elements measuring Essential Climate Variables, and experts contributing to the GCOS programme.

Restricted distribution



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**INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION  
(of UNESCO)**

**Twenty-eighth Session of the Assembly**  
UNESCO, Paris, 18-25 June 2015

**PROVISIONAL SUMMARY REPORT**

**Part 3**

(Agenda items 1 (*continuation*), 5.3, 7.2, 8 & 10)

Unedited version as adopted on 25 July 2015 in plenary session



## 1. OPENING (*continuation*)

*[...] Completes the report on item 1 published in Part 1 of the Draft Summary Report*

1. UNESCO Director-General, Irina Bokova, addressed the IOC Assembly during the opening session, and returned on June 22 to take questions from the Member States. The Director-General stressed the importance of the role of the ocean within the sustainable development agenda, congratulated the IOC on the successful UN World Oceans Day event, and recalled the Rio+20 thematic priority of the ocean for development, livelihood and science. The Director-General recounted the challenge to IOC of performing with reduced financial resources and staff during the current biennium, which were partially offset by additional resources made available to IOC from the UNESCO Emergency Fund, and assured the Assembly that the IOC is one of the high priorities for UNESCO. As evidence of this commitment the Director-General reminded the Assembly that the UNESCO Draft Budget for 2016–2017 contains a proposed allocation to the IOC at the level of 2% of the total UNESCO budget, which, while modest, is a confirmation of a steady increase in the IOC share of the Organization's total budget over the last four biennia.
2. The Director-General indicated that she follows, with great interest, the work on the Future of the IOC, its efforts to further sharpen the IOC mission and raise its visibility, and the reflections on the IOC functional autonomy and the efficiency of its governance. She expects from this work a clear statement from the IOC of its mandate, vision and responsibility in support of the Sustainable Development Agenda.
3. The Director-General complemented the commission on successful work within limited resources and thanked the outgoing officers for their commitment and contributions to the commission.
4. The Member States thanked the Director-General for her support and interest in the IOC. The Assembly appreciated the Director-General's expression of support with regard to the need to sharpen the IOC mission and raise IOC image within the UN organizations, to further prioritize its core mandate in the area of long-term sustained observations and related data and information management, to increase the emphasis on regional priorities, including through a more balanced geographical distribution within the IOC Secretariat. The Director-General reiterated the importance of the Future of IOC process and emphasized how the IOC intergovernmental role, the interface between science and politics, is so important to the governance questions related to all Sustainable Development Goals and of fundamental importance to UNESCO.

## 5 OCEAN RESEARCH

### 5.3 SECOND INTERNATIONAL INDIAN OCEAN EXPEDITION

5. The chair of the Interim Planning Committee (Group of Experts) [IPC] for the Second International Indian Ocean Expedition (IIOE-2), Satheesh Shenoi, introduced this item. Recalling the resolution adopted by the IOC Executive Council

(EC-XLVII.1, 2014), he reported on the meetings and outputs of the SCOR-IOC-IOGOOS Interim Planning Committee (Group of Experts) for IIOE-2. Based on a Science Plan for IIOE-2, whose development was led by SCOR, the IPC developed a Strategic Framework for Implementation of the IIOE-2, which benefited from input from IOC's network of Regional Subsidiary Bodies, Committees, Decentralized Offices, global programmes, and supporting stakeholder alliances.

6. Dr Shenoï highlighted the IPC's work in producing its report, including reference to governance and coordination, science and research, data and information management, capacity building, operational coordination, outreach and communication, transitioning science for society, and resources and sponsorship. Dr Shenoï advised that IPC offered to continue its tenure until the time of the recommended IIOE-2 launch (4 December 2015, GOA, India), to oversee the development of an IIOE-2 Steering Committee, and a complementary operational structure and implementation plan. Dr Shenoï urged other Member States and associated stakeholders to complement India's and Australia's early commitments of support, pointing to the IOC report for specific areas of need where further resources can be channelled for IIOE-2 by willing Member States and donors.
7. Prof. Peter Burkill, President of SCOR, presented in more detail on the developed science plan for IIOE-2, which was recommended by IPC for adoption as the IIOE-2 underpinning science framework, and which focussed on the six themes of: human impacts; boundary current dynamics, upwelling variability and ecosystem impacts; monsoon variability and ecosystem response; circulation, climate variability and change; extreme events and their impacts on ecosystems and human populations; and unique geological, physical, biogeochemical and ecological features of the Indian Ocean.
8. The Assembly commented on the IPC work and indicated strong support for the IIOE-2. Specific points were made: linking the IIOE-2 with the Indian Ocean Rim Association; promoting opportunities for berths on the first cruise for IIOE-2 (December 2015, Goa to Mauritius) aboard the Indian ORV *Sagar Nidhi*; dealing effectively with sovereignty issues in national EEZs in regard to data sharing, availability and activities in EEZs; promoting activity in the marginal seas of the Indian Ocean; engagement in IIOE-2 of the formal IOC Subsidiary Bodies, in particular regional ones; emerging commitments by various Member States to actively engage in IIOE-2, such as via cruises; and consideration of the merits of mounting similar 'expeditions' in other oceans.
9. Drs Shenoï and Burkill acknowledged and thanked Member States and Observers for their support.
10. The representatives of 17 Member States and four Observers took the floor. The following Member States and organization chose to provide records of their plenary intervention on this agenda item for the informational annex to the meeting report: Australia, China, Indonesia, Japan, Thailand, UK, USA and GEBCO
11. The Assembly adopted Resolution XXVIII-1 submitted by Australia, India, Thailand, I.R. Iran, Mauritius, Tanzania, Egypt, United Kingdom, South Africa, Republic of Korea, Madagascar, Togo, China, Seychelles and Kenya.

## **7. OBSERVING SYSTEMS AND DATA MANAGEMENT**

### **7.2 DATA MANAGEMENT**

#### **7.2.1 International Oceanography Data and Information Exchange: 23<sup>rd</sup> Session of IODE, 17–20 March 2015, Bruges, Belgium**

12. The IODE Co-Chair of the IOC Committee on International Oceanographic Data and Information Exchange (IODE), Cyndy Chandler (USA), introduced this item.
13. Ms Chandler informed the Assembly on the outcome of the 23rd Session of the IODE Committee (4 decisions and 5 recommendations) and the one-day (16 March 2015) scientific conference in celebration of the tenth anniversary of the establishment of the IOC Project Office for IODE in Ostend, Belgium (2005–2015).
14. The Committee focused its attention on the future of the IODE Programme, taking into account the continuing current financial crisis situation in which IOC and all its programmes find themselves, including IODE, but also the increased need for data and information management as a service to the ocean research, observation and management communities. The increased attention to data/information management by these communities has been demonstrated during the past inter-sessional period (2013–2015) by the establishment of 14 Associate Data Units (ADUs) that complement the network of 67 National Oceanographic Data Centres (NODCs). The cross-cutting nature of IODE is also evidenced by the contributions of IODE to the six functions defined in the IOC Medium-Term Strategy. The Committee had extensive discussions on how IODE should evolve and established an inter-sessional working group to propose the re-structuring of IODE. At the regional level the Committee decided that the Ocean Data and Information Networks (ODINs) should focus (where that is not the case yet) on linking with on-going projects that have a data and information management component or require data and information management expertise. Regarding global activities, the Committee streamlined all activities into projects with specific terms of reference and management structures. In addition to the already existing 16 global projects, the Committee recommended the establishment of two new projects, while it closed one project.
15. The Committee had noted with appreciation the creation of a P-3 regular programme position for OBIS and GOOS. Both OBIS and ICAN (International Coastal Atlas Network) were now developing well within IODE and provided services to a variety of IOC (and other) programmes. The joint OBIS-GOOS Biology position would generate new opportunities for closer collaboration between IODE and GOOS.
16. The Assembly recognized the 10<sup>th</sup> anniversary of the IOC Project Office for IODE as an important milestone for the IOC and noted the continuous support of several Member States: the Government of Flanders (Belgium) for supporting the office, Russian Federation for its support through the Partnership Centre for the IODE Ocean Portal and Canada for providing staff support for the Portal.
17. The Assembly noted the high importance of oceanographic data and information management for research and policy-making.

18. The Assembly, while welcoming the increasing focus on the development of products and services, called on IODE not to forget its important role in long-term secure archival of oceanographic data and information.
19. Malaysia recalled that it has established an IODE ADU as well as OceanTeacher Regional Training Centre in 2014 and will proceed with organizing several training courses on quality management, GIS and fundamentals of data management in 2016.
20. South Africa, noting that an OceanTeacher Global Academy Regional Training Centre has been established in South Africa in 2014, informed the Assembly that a training centre on operational oceanography will be established in Cape Town, South Africa in the near future and offered cooperation of this new centre with the OceanTeacher Global Academy.
21. The Assembly noted the value of the new ADU as a mechanism to bring into IODE new data types and new stakeholder communities, and commended the decision taken by IODE-XXIII to review and revise the structure of IODE in order to make the programme more efficient as part of the “Future of IODE” actions. The Assembly also welcomed the integration of IODE across several other IOC programmes.
22. The representative of GEBCO, noting the data management component of GEBCO, called for collaboration with IODE.
23. The representative of POGO, referring to the history in collaboration with IODE, called for continued cooperation with IODE in the area of capacity development related to data and information management.
24. The representatives of 11 Member States and two organizations took the floor. The following Member States and organizations chose to provide records of their plenary intervention on this agenda item for the informational annex to the meeting report: Canada, Chile, India, Japan, Malaysia, South Africa, Turkey and GEBCO, POGO.
25. The Assembly adopted Decision IOC-XXVIII, Dec. 7.2.1 below.

### **International Oceanographic Data and Information Exchange**

The Assembly,

Having examined the Executive Summary and Report of the 23rd Session of the IOC Committee on International Oceanographic Data and Information Exchange (IODE-XXIII) (17–20 March, Bruges, Belgium), the recommendations and the decisions contained therein (IOC/IODE-XXIII/3s),

Noting the financial and human resource implications of the work plan and the shortfall against the draft IOC Programme and Budget allocation for IODE,

Agrees to the IODE Work Plan for 2015–2017 (Recommendation IODE-XXIII.5) and to consider it in the overall IOC Programme and Budget resolution XXVIII-3;

Endorses the Report of the 23rd Session of the IOC Committee on International Oceanographic Data and Information Exchange and the recommendations contained therein;



Welcomes the increasing role of IODE across all IOC programmes through the six functions identified in the IOC Medium-Term Strategy;

Welcomes the balance, in the work plan, between global and regional activities and the strong focus on capacity development spearheaded by the OceanTeacher Global Academy;

Expresses its deep appreciation to the Government of Flanders (Belgium) for hosting and supporting the IOC Project Office for IODE and for its continuing and increasing financial support to IODE, the Russian Federation for its support through the hosting of the Partnership Centre for the IODE Ocean Data Portal in Obninsk, as well as to other donors and Member States who are providing financial and in-kind support for IODE;

Expresses its appreciation to the UNESCO Director-General for establishing a regular programme position for OBIS (shared with GOOS Biology) in March 2015;

Expresses its appreciation for the in-kind support for the IODE Programme provided by Member States through establishing and maintaining IODE Data Centres, provision of experts, through the provision of valuable ocean data and information products and services, and through financial and in-kind contributions to IOC;

Urges Member States to support the IODE Work Plan through cash contributions to the IOC Special Accounts for IODE and OBIS, secondments of staff members to the IODE Project Office, in-kind support such as hosting meetings or workshops with participant funding, the establishment of IODE partnership centres or OceanTeacher Regional Training Centres, or the funding of IODE or OBIS Projects or the establishment of National Oceanographic Data Centres.

## **8. EARLY WARNING AND SERVICES**

### **8.1 REGIONAL TSUNAMI WARNING SYSTEMS**

#### **8.1.1 Intergovernmental Coordination Group for the Pacific Tsunami Warning Mitigation System: 26<sup>th</sup> Session of ICG/PTWS, 24–26 March 2015, Hawaii, USA**

26. Mr Tomoaki Ozaki, Vice Chairman (Japan), on behalf of Ms Filomena Nelson (Samoa), Chair of the Intergovernmental Coordination Group for the Pacific Tsunami Warning and Mitigation System (ICG/PTWS), introduced this item. Mr Ozaki reported on recent developments of the ICG/PTWS, including the New Enhanced PTWC products for PTWS which were introduced on 1st October 2014, as well as the start of the process for Enhanced Products by the North West Pacific Tsunami Advisory Center (NWPTAC). He further reported on the on-going establishment of a Tsunami Warning System in the South China Sea Region and the proposed establishment of a Regional Tsunami Advisory Centre for Central America, as discussed at the 26th session of the ICG/PTWS hosted by USA in Honolulu on 22–25 April 2015. He indicated that the ICG/PTWS decided to constitute, under the Steering Committee, a Task Team to look into performance monitoring measures for Tsunami Service Providers (TSPs), National Tsunami Warning Centres (NTWCs), and national warning systems. It also decided to establish a Task Team on Evacuation Planning and Mapping to develop a new programme aimed at facilitating tsunami resilience through community preparedness, specifically through the preparation of tsunami evacuation maps and

associated response plans for tsunami-vulnerable coastal communities. Mr Ozaki expressed that to enable the continued maintenance and enhancement of the ICG/PTWS, Member States will be requested to reaffirm their commitment to the system. He referred to the land marking International Tsunami Symposium “Making the Pacific Ready for the Tsunami Threat”, 20–21 April 2015, hosted by the Government of USA to celebrate the 50<sup>th</sup> anniversary of the ICG/PTWS.

27. Member States expressed support for the work of ICG/PTWS and offered to share their experience and expertise with other Member States. Japan confirmed its intention to develop North West Pacific Tsunami Advisory Center (NWPTAC) Enhanced Products by 2018. China indicated it will host an experts’ meeting on the South China Sea region hazard assessment in 2015. Panama indicated its support to the Central America Tsunami Advisory Center (CATAC) and Colombia noted that at the 26<sup>th</sup> session of the ICG/PTWS and the 10<sup>th</sup> session of ICG/CARIBE-EWS Member States indicated the need for a detailed hosting proposal of the CATAC by Nicaragua.
28. The representatives of nine 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: Chile, China, Columbia, Japan, Republic of Korea, Thailand,

#### **8.1.2 Intergovernmental Coordination Group for the Indian Ocean tsunami Warning and Mitigation System: 10<sup>th</sup> Session of ICG/IOTWS, 24-26 March 2015, Muscat, Oman**

29. Dr Srinivasa Tummala (India), Chair of the Intergovernmental Coordination Group for the Indian Ocean Tsunami Warning and Mitigation System (ICG/IOTWS), introduced this item. He recalled the history and governance structure of the ICG/IOTWS and highlighted its achievements in the decade since it was established. He reported on the progress and key activities of the ICG/IOTWS since it last reported to the Assembly. He highlighted the results of the IOWave14 exercise (9–10 September 2014) and the four IOTWS Communications Tests that had been conducted. He reported on the international conference to commemorate the 10<sup>th</sup> anniversary of the Indian Ocean Tsunami (Jakarta, Indonesia, 24–25 November 2014), the key recommendations and outcomes of which (IOC/BRO/2015/2) were conveyed to the 3<sup>rd</sup> UN World Conference on Disaster Risk Reduction (Sendai, Japan, 14–18 March 2015). He informed the Assembly that at its 10<sup>th</sup> session (Muscat, Oman, 24–25 March 2015), the ICG/IOTWS decided to merge two of its three working groups into a new working group focusing on “Tsunami Risk, Community Awareness and Preparedness”, and had established a new sub-regional Working Group for the Northwest Indian Ocean. The ICG/IOTWS also endorsed Terms of Reference for the Indian Ocean Tsunami Information Centre (IOTIC) and welcomed Indonesia’s offer to host IOTIC for a five-year period commencing 2016.
30. Looking to the future, Dr Tummala informed the Assembly that the ICG/IOTWS would place greater focus on community awareness and preparedness to help ensure more appropriate responses to tsunami warning information. He emphasized the important role of Tsunami National Contacts

(TNC), National Tsunami Warning Centres (NTWC) and Tsunami Warning Focal Points (TWFP) and encouraged the IOTWS Member States to respond to requests from the secretariat to nominate these key points of contact. Finally, he informed the Assembly that the ICG/IOTWS would continue to organise training activities to develop capacity in coastal hazards and risk assessment, and Standard Operating Procedures for tsunami warning and emergency response, subject to the availability of funding.

31. Member States expressed their continued support for the work of the ICG/IOTWS, and noted the achievements of the IOTWS in the decade since its establishment. The Assembly noted the recommendations of the international conference to commemorate the 10<sup>th</sup> Anniversary of the Indian Ocean Tsunami held in Jakarta, Indonesia in November 2014. It also noted that sustainability of the IOTWS and all other systems was a major concern. Australia confirmed that it will continue to provide funding support to the ICG/IOTWS Secretariat. India noted that the Indian National Centre for Ocean Information Services (INCOIS) is now a multi-hazard warning centre as it also forecasts storm surges.

32. The representatives of six Member States took the floor. The following Member States and organization chose to provide records of their plenary intervention on this agenda item for the informational annex to the meeting report: Australia, India, Indonesia, Malaysia, and ESCAP.

### **8.1.3 Intergovernmental Coordination Group for the Tsunami and Other Coastal Hazards Warning System for the Caribbean and adjacent Regions: 10<sup>th</sup> Session of the ICG/CARIBE-EWS, 19–21 May 2015, Saint Maarten, Kingdom of the Netherlands**

33. Ms Christa Von Hillebrandt Andrade (USA), Chair of the Intergovernmental Coordination Group for the Tsunami and Other Coastal Hazards Warning System for the Caribbean and Adjacent Regions (ICG/CARIBE-EWS), introduced this item. She highlighted the results of the CARIBE WAVE15 exercise and the continued enhancement of the detection network in the region. She indicated that since 2011, almost 500,000 people have participated in the CARIBE WAVE Exercises, with the next one already scheduled on Thursday 17 March 2016. With respect to monitoring networks she reported that there are currently 74 sea-level stations (including DARTS), which represent close to 70% of the Implementation Plan. She reported that the ICG/CARIBE-EWS approved the launch of PTWC Enhanced Products for the ICG/CARIBE-EWS in parallel with current products on 1<sup>st</sup> October 2015 and full transition to the Enhanced Products on 1<sup>st</sup> March 2016.

34. Ms Von Hillebrandt Andrade also reported on preparedness and awareness activities in the region including the status of the Caribbean Tsunami Information Center (CTIC). She reported that the Caribbean Tsunami Information Center's core financial resources for its operational expenses are covered until the end of the year thanks to the recent approval of Emergency Funds for CTIC by the Director-General, and highlighted a matter of concern for Caribbean Member States that operational expense finances beyond 2015 are not secured. .

35. Member States expressed their support to the ICG/CARIBE-EWS. United Kingdom indicated it will be providing additional sea-level stations for Anguilla (UK) and Turks and Caicos (UK) in partnership with NOAA. Panama will soon provide five new stations to the system. They requested the IOC Executive Secretary to make every effort to address the imminent gap in funding that may result in the halt of all operations of the Caribbean Tsunami Information Centre (CTIC) by identifying resources from the regular budget, extrabudgetary and/or other sources that may become available for the next biennium 2016-2017. Member States urged the IOC secretariat to explore innovative approaches to bring resources and continued funding to CTIC, such as the UK's approach to the private sector including the cruise ship industry. Additional extra budgetary funds are sought to support CTIC, including through a specific proposal to be included in the updated Complementary Additional Programme (CAP) for 2016-2017.
36. 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: Brazil, Dominican Republic, France.

#### **8.1.4 Intergovernmental Coordination Group for the Tsunami Early Warning and Mitigation System in the North-eastern Atlantic, the Mediterranean, 12-14 November 2014, Nicosia, Cyprus**

37. Dr Ahmet Yalciner (Turkey), Chair of 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 continuation of the interim operational phase of NEAMTWS involving the Candidate Tsunami Service Providers (CTSPs) of France, Greece, and Turkey, and including the commencement of the activity of Italy as CTSP as of 1<sup>st</sup> October 2014. He also reported the steady progress made towards the provision of tsunami services for the region by Portugal. Ensuring interoperability among these centres is one of the priority areas for the upcoming years, and for this reason a new Task Team on Operations has been established at the ICG/NEAMTWS-XI. He also reported the progress made by Germany, Israel, and Spain towards the creation of their National Tsunami Warning Centres (NTWCs). Dr Yalciner informed the Assembly of preparatory activities, including a regional workshop for Maghreb countries, a workshop for Civil Protection Authority organized in Brussels jointly with the European Commission Directorate General for Humanitarian Aid and Civil Protection (DG ECHO), which co-funded the exercise. Dr Yalciner informed the Assembly of a side event during this session to present the NEAMWave14 results. In a more prospective view Dr Yalciner highlighted the challenges and the priorities for NEAMTWS. The public and the authorities remain relatively unaware of the regional tsunami risk, therefore it is recommended to increase education and awareness raising activities in the region. The participation of civil protection authorities has significantly increased as demonstrated by their participation in NEAMWave14, but more targeted activities, including training for emergency managers, will have to be organized. The success of the NEAMTWS depends on the participation of all countries bordering the Mediterranean Sea and North-eastern Atlantic Ocean, including countries that have not yet nominated tsunami national contacts and tsunami warning focal points. Dr Yalciner emphasized that

the detection networks need to be sustained by national and international funding and that targeted activities should be organized for those countries where there remain gaps in the seismic and sea level networks.

38. Member States commended the work of NEAMTWS to implement the system and stressed that this is a very crucial moment for the system which requires elevation from pre-operational status to its full implementation. Member States intervened to remind the Assembly of significant national achievements which are cumulatively contributing to the implementation of NEAMTWS in the region. The Assembly, considering the increase of the activities of NEAMTWS and of its Tsunami information Centre (NEAMTIC), suggested that the IOC Secretariat consider means to strengthen support and consider the establishment of a full time technical secretary position.
39. The representatives of five 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: Turkey, UK

## 8.2 GLOBAL COORDINATION OF WARNING AND MITIGATION SYSTEMS FOR OCEAN HAZARDS (TOWS-WG)

40. Mr Yutaka Michida (Japan), 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 8th meeting of TOWS-WG.
41. Mr Michida emphasised the importance of the Sendai Framework for Disaster Risk Reduction 2015–2030 and noted that the tsunami programme activities should be planned within this framework. He noted that 2014 and 2015 were commemorative years for all the ICGs and highlighted in particular the international conferences for the IOTWS and PTWS held in Jakarta, Indonesia and Honolulu, USA respectively. He outlined the structure of the tsunami programme at IOC and referenced the IOC resolutions and decisions that had established and maintained the TOWS-WG and its Task Teams.
42. Referring to the 8<sup>th</sup> Meeting of the TOWS-WG held in Morioka, Japan, 12–13 March 2015, he noted the decisions and recommendations arising from the meeting. In particular he referred to the recommendations of the TOWS-WG Task Teams on: Tsunami Watch Operations; Hazard Assessment Related to Highest Potential Tsunami Source Areas; and Disaster Management and Preparedness. Mr Michida acknowledged the involvement of the CTBTO, IHO and GEBCO in the TOWS-WG and emphasised the importance of collaboration with both organisations for tsunami warning purposes.
43. Mr Michida highlighted some of the challenges that lie ahead, including the lack of core financial resources to sustain the CTIC beyond December 2015. He strongly urged the Member States to increase their extra-budgetary contributions to the IOC to provide needed resources for the priorities identified by the TOWS-WG. Finally, Mr Michida recommended that the TOWS-WG and its Task Teams should

be extended for another intersessional period with the same Terms of Reference and membership to allow it to complete their workplans.

44. Member States noted that global coordination of tsunami warning systems is essential and appreciated that the TOWS-WG has proven to be a successful and essential mechanism for ensuring coordination and information exchange, leading to mutually beneficial developments and harmonization of tsunami warning systems globally. The Assembly commended the work done by the ICGs and the organization of tsunami exercises which have brought visibility to the IOC. IHO/GEBCO commented that it will continue to provide support to the ICGs and requested that it be informed of ICG meetings so that it can participate.
45. The representatives of four Member States 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: France, USA, and GEBCO.
46. The Assembly adopted Decision IOC-XXVIII, Dec.8.2 below.

### **Tsunami and Other Coastal Hazards Warning Systems**

The Assembly,

Notes the outcomes from the Third United Nations World Conference on Disaster Risk Reduction (UN WCDRR), Sendai, Japan, 14–18 March 2015, and the resulting government commitments to the Sendai Framework for Disaster Risk Reduction 2015-2030 (A/CONF.224/L.2);

Decides that in the future all Intergovernmental Coordination Groups for Tsunami Early Warning and Mitigation include in their reports to the IOC Governing Bodies a section with their performance against targets of the Sendai Framework for Disaster Risk Reduction 2015–2030;

Recognizes the importance of the TOWS working group in continued harmonisation of products and services of all tsunami early warning and mitigation systems, with the necessary adjustments for smaller seas;

#### **I. Pacific Tsunami Warning and Mitigation System (PTWS)**

Noting with appreciation the tsunami forecasting products provided for the Member States of the PTWS by the PTWC hosted by the USA and the NWPTAC hosted by Japan, and the guidance materials by the ITIC,

Noting the outcomes of the International Tsunami Symposium Commemorating the 50th Anniversary of the Pacific Tsunami Warning and Mitigation System “Making the Pacific Ready for the Tsunami Threat” (20–21, April 2015, Honolulu, Hawaii, USA),

Endorses the continuity of the PTWC Enhanced Products for PTWS;

Agrees that the Northwest Pacific Tsunami Advisory Center (NWPTAC) should proceed with its development of enhanced products for the North West Pacific;

Takes note of Nicaragua’s offer to host and develop a Tsunami Advisory Center for Central America (CATAC) under the guidance of the Regional Working Group on

Tsunami Warning and Mitigation System on the Central American Pacific Coast, within the framework of ICG/PTWS, ICG/CARIBE-EWS and TOWS-WG;

Requests Member States to promptly inform the Secretariat of all changes to their Tsunami National Contacts (TNCs), National Tsunami Warning Centres (NTWCs), and Tsunami Warning Focal Points (TWFPs) through official channels;

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

Notes the outcomes and recommendations of the international conference “The Indian Ocean Tsunami Warning and Mitigation System 10 years after the Indian Ocean Tsunami: Achievements, Challenges, Remaining Gaps and Policy Perspectives” (22–23 November, Jakarta, Indonesia); and notes also the International Conference “Reducing Tsunami Risk in the Western Indian Ocean: a Regional Conference in Muscat”, 22–23 March 2015, Muscat, Oman;

Notes with concern that the EUMETSAT Meteosat-7 will be decommissioned in 2016, and urges WMO to address the issue of its replacement to ensure availability of real-time sea level data in the Indian Ocean region for tsunami warnings;

Encourages Member States to update their Tsunami National Contact (TNC), National Tsunami Warning Centre (NTWC) and Tsunami Warning Focal Point (TWFP) information and inform the Secretariat of all changes through official channels;

Notes the diminishing engagement by some Member States in the activities of the ICG/IOTWS, and urges Member States to participate more actively;

Welcomes with gratitude, the generous offer of Indonesia to support IOTIC for a period of five years commencing 2016;

Decides to change the IOTWS acronym to IOTWMS to fully reflect the actual name of the System and the importance of Mitigation in the work of the ICG.]

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

Endorses the start of issuance of the PTWC Enhanced Products for CARIBE-EWS in parallel with current products on October 1, 2015 and its full transition to the new products on March 1, 2016;

Notes the approval of the guidelines for the Community Performance Based Tsunami Recognition Programme for the Caribbean and Adjacent Regions as outlined in Appendix I of Recommendation ICG/CARIBE-EWS-X.6, for implementation on a pilot basis, and invites Member States and donor agencies to support pilot projects;

Takes note of Nicaragua’s offer to host and develop a Tsunami Advisory Center for Central America (CATAC) as a sub-regional Tsunami Service Provider under the guidance of the Regional Working Group on Tsunami Warning and Mitigation System on the Central American Pacific Coast, within the framework of ICG/PTWS, ICG/CARIBE-EWS and TOWS-WG;

Recognizes the Caribbean Tsunami Information Center (CTIC) essential function in the region and agrees that CTIC is a matter of priority for the IOC, and calls on

Member States and other donors to provide extra-budgetary funds to sustain its functioning.

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

Welcomes that the Candidate Tsunami Service Providers of France, Greece, Italy and Turkey provide tsunami warning service to the ICG/NEAMTWS Member States upon request via the IOC;

Notes the steady progress of Germany, Israel, Spain, and Portugal in developing their National Tsunami Warning Centres and the intent of Portugal to also act as Candidate Tsunami Service Provider and thereby contributing to tsunami monitoring coverage for all geographic areas of NEAMTWS;

Urges Member States to support NEAMTWS through extra-budgetary contributions, secondments of staff members, and in-kind support for the organization of workshops and capacity development activities;

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

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-XXVI), The Indian Ocean Tsunami Warning and Mitigation System (ICG/IOTWS-X), the Tsunami and Other Coastal Hazards Warning System for the Caribbean and Adjacent Regions (ICG/CARIBE EWS-X), the North-Eastern Atlantic, the Mediterranean and Connected Seas Tsunami Warning and Mitigation System (ICG/NEAMTWS-XI), and the report of the Working Group on Tsunamis and Other Hazards Related to Sea-Level Warning and Mitigation Systems (TOWS-WG-VIII),

Accepts the reports and the decisions and recommendations contained therein;

Notes the ongoing work of TOWS-WG as well as the work of its Task Teams and decides that their ToRs and membership be extended for the next biennial period;

Noting the growing dependence and use of seismic data from the International Monitoring System of the Preparatory Commission for the Comprehensive nuclear-test-ban treaty organization (CTBTO) data by National Tsunami Warning Centres, as set out under the CTBTO-UNESCO MoU of 2010;

Encourages more National Tsunami Warning Centres to sign formal agreements with CTBTO to receive seismic and hydro acoustic data from the CTBTO International Monitoring System;

Notes further the reports on the ITU/UNESCO-IOC/WMO Joint Task Force (JTF) to investigate the potential of using submarine telecommunications cables for ocean and climate monitoring and disaster warning; and encourages the development of pressure sensors for underwater telecommunication systems to augment existing tsunami monitoring networks;

Recognizes that the current financial situation strongly limits the implementation of the tasks of the Group, ICGs and Inter-ICG Task Teams; and strongly urges the Member States to increase their extra-budgetary contributions to the IOC to provide



the needed resources for the priorities identified by TOWS-WG and the Intergovernmental Coordination Groups (ICG);

Notes with concern that the Caribbean Tsunami Information Centre's core financial resources to cover its operational expenses (including salaries) beyond December 2015 are currently non-existent;

Agrees that the regular budget for ICG activities will be identified as part of the overall IOC Programme and Budget resolution XXVIII-3.

### 8.3 HARMFUL ALGAL BLOOMS: 12<sup>TH</sup> SESSION OF THE INTERGOVERNMENTAL PANEL ON HARMFUL ALGAL BLOOMS (IPHAB), 28-30 April 2015

47. The Chair of the IOC Intergovernmental Panel on Harmful Algal Blooms (IPHAB), Mr Gires Usup (Malaysia), introduced this item and presented the report, work plan, eight decisions and two recommendations of the 12<sup>th</sup> Session of the IOC Intergovernmental Panel on Harmful Algal Blooms Paris, 28–30 April 2015.
48. The Chair IPHAB emphasized the decisions and recommendations made regarding: an international strategy for *ciguatera* fish poisoning, for the joint IOC-SCOR research initiative on HABs in a changing world to meet societal needs; the development of the Global HAB Status Report; long-term capacity building; and the regional development of the Programme. He also stressed the unique role IOC can play in resolving scientific issues and management solutions to the problems encountered by the desalination industry due to HABs, provided that the adequate extra-budgetary funds are identified for the Complementary Additional Programme.
49. The Chair advocated for participation of Member States in IPHAB sessions and recognition of the HAB programme in the appropriate national agencies and institutions.
50. The Chair IPHAB urged the IOC Member States to carefully match the HAB Programme work plan with national priorities and potential funding in order to actively interact with and support its implementation.
51. The Assembly expressed appreciation of the progress made and the priorities set for the biennium 2016–2017. Member States referred to the continuous, and in several cases, increasing major public health threats from neurotoxins, impact on aquaculture, massive fish kills, damage to coastal ecosystems, and impacts of *Ciguatera* Fish Poisoning (CFP). The Assembly acknowledged that HAB occurrences may be determined by both natural and anthropogenic factors and that the IOC should continue to pursue the science for improved management and mitigation through GlobalHAB. Particular importance was given to the interagency strategy on CFP under development and implementation. The Assembly recognized that the Global HAB Status Report will be important for informing public opinion and the broader international community.

52. The Assembly stressed the need for effective and continuous coordination between regional and global IOC activities on HAB to ensure benefits of complementarity and synergy.
53. Several Member States expressed their willingness to directly support work plan implementation; Spain expressed its willingness to support the continued publication of the IOC newsletter *Harmful Algae News*; the USA expressed its willingness to provide scientific expertise and financial resources to address CFP; Malaysia offered to host a workshop on biotoxins for South East Asia; and Colombia expressed commitment to contribute to capacity development activities on HAB. India expressed its wish to associate with IPHAB.
54. The representatives of 12 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: Australia, Canada, Colombia, France, India, Japan, Malaysia, Thailand,
55. The Assembly adopted Decision IOC-XXVIII,Dec.8.3 below.

### **Harmful Algal Blooms**

The Assembly,

Recalling IOC Resolution XVI-4, which established the Intergovernmental Panel on Harmful Algal Blooms,

Having considered the Executive Summary Report of the 12th Session of the IOC Intergovernmental Panel on Harmful Algal Blooms (IPHAB), its eight Decisions and two Recommendations and the work plan for 2016–2017 adopted at the Session (IOC/IPHAB-XII/3),

Expresses its appreciation for the support for the HAB Programme provided by Member States through regional HAB groups, the IOC Science and Communication Centre on Harmful Algae, provision of experts, and through the provision of HAB data, and financial and in-kind contributions to IOC;

Noting with satisfaction that IPHAB has continued to provide an efficient mechanism to respond to new HAB-related problems experienced by Member States, to leverage resources from diverse sources to focus on priority needs, and to establish partnerships with relevant organizations,

Endorses the Executive Summary Report of IPHAB-XII and the recommendations contained therein (IOC/IPHAB-XII/3s);

Agrees to the HAB Work Plan for 2016–2017 (Recommendation IPHAB-XII.2) and to consider it in the overall IOC Programme and Budget resolution XXVIII-3;

Urges funding agencies and institutions in IOC Member States to assist in the mobilization of funding that will ensure the implementation of the IPHAB Work Plan for 2016–2017 (~US\$ 460.000 for full implementation).

## 10. SUSTAINABLE DEVELOPMENT AND GOVERNANCE

### 10.1 UN COORDINATION AND CONTRIBUTION TO OCEAN GOVERNANCE

56. The Head of the Marine Policy and Regional Coordination Section (MPR), Julian Barbière, presented the IOC contribution to various ocean-related UN inter-agency activities. As the focal point within the UN system for ocean sciences, observations, services, data and information exchange and capacity development, IOC contributes to a number of UN processes, responds to the needs expressed by the UN General Assembly, and plays an active role in UN inter-agency mechanisms and activities.
57. Mr Barbière highlighted a number of UN initiatives that are highly relevant to the mandate of the IOC, namely: (i) the on-going UN negotiations related to formulation of a set of the Sustainable Development Goals in the context of the Post-2015 Development Agenda, and particularly the proposed goal No. 14 on ocean, that calls for, *inter alia*, increasing scientific knowledge, developing research capacities and transferring marine technology taking into account the *IOC Criteria and Guidelines on the Transfer of Marine Technology* (SDG Target 14.a); (ii) UN-Oceans, the UN inter-agency coordination mechanism on ocean affairs; (iii) the outcome of the UN Conference on Small Island Developing States (1–4 September 2014) in Samoa; (iv) negotiations related to the development of a legally binding instrument under UNCLOS on the conservation and sustainable use of marine biological diversity in areas beyond national Jurisdiction (BBNJ); and (v) the forthcoming UNFCCC Conference of Parties (COP-21) to be held in December 2015 in Paris.
58. The Assembly welcomed the engagement of IOC in the Post-2015 Development Agenda and SDG process, including its role in providing technical support for the development of the SDG indicator framework, as well as their future implementation. The Assembly highlighted the importance of supporting the needs of SIDS in response to the priorities contained in the SAMOA Pathways outcome document, particularly in the areas of climate change adaptation, tsunami, and the sustainable use of marine biodiversity.
59. In the context of emerging frameworks such as the Post-2015 Development agenda and BBNJ process, and without pre-empting the outcome of such negotiations, the Assembly encouraged the Secretariat, with the support of the IOC Member States, to raise the visibility of the Commission in the fields of ocean indicator development, capacity development in ocean science and transfer of marine technology.
60. The representatives of five 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: France, Indonesia, Japan, New Zealand, Poland, UK.
61. The Assembly adopted Decision IOC-XXVIII,Dec.10.1 below.

## UN Coordination and Contribution to Ocean Governance

The Assembly,

Having considered document IOC/INF-1328,

Takes note and welcomes the active role played by the Commission in UN-Oceans, the Post-2015 Development Agenda and elaboration of proposed Sustainable Development Goals (SDG), targets and indicators, the outcome to the UN Conference on Small Island Developing States (SIDS), and the UN negotiations related to the conservation and sustainable use of marine biological diversity beyond areas of national Jurisdiction;

Invites IOC Member States to support IOC's role and contributions in these processes by integrating, as far as possible, the importance of the oceans and the contribution of IOC into their preparation and statements at intergovernmental negotiations on the Post-2015 Development Agenda, as well as at negotiations related to the development of an international legally binding instrument under the United Nations Convention on the Law of the Sea related to the conservation and sustainable use of marine biological diversity beyond areas of national Jurisdiction.

### 10.2 INTEGRATED COASTAL AREA MANAGEMENT PROGRAMME (ICAM)

62. In accordance with IOC-XXVI/Dec.8.2, Julian Barbière, Head, Marine Policy and Regional Coordination section (MPR), 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 Integrated Coastal Area Management (ICAM), Marine Spatial Planning (MSP), coastal hazards mitigation, and decision-support tools for coastal and ocean management.
63. In this context, Mr Barbière presented new project initiatives: first the GEF:Learn-LME Project entitled "Strengthening global governance of Large Marine Ecosystems and their coasts through enhanced sharing and application of LME/ICM/MPA knowledge and information tools" to be implemented through IOC; secondly, the European Horizon 2020 Project AQUACROSS in which IOC/MPR is leading the work packages of transboundary waters indicators and the development of the information platform, as well as the pilot case study at the Intercontinental Biosphere Reserve of the Mediterranean: Andalusia (Spain) – Morocco; and thirdly the new activities sponsored by the Moore Foundation to support a global assessment on dissemination of MSP practices around the world.
64. Mr Barbière highlighted the implementation progress of the Data and Information Network in support to Integrated Coastal Area Management in the Southeast Pacific region (SPINCAM Project) with the support of IODE and ICAN, and the final results of the European FP7 Project PEGASO for the Mediterranean and the Black Sea. In terms of capacity development, Mr Barbière presented the framework design by MPR for trainings on ecosystem-based management (ICAM/MSP) and decision support tools in response to different demands from the coastal community, the lessons learnt from the 15 trainings organized during the last two years and the newest set of IOC guidelines on Marine Spatial Planning in different languages.

65. The Assembly welcomed the contribution of SPINCAM to the Southeast Pacific Region and the capacity development activities dedicated to marine spatial planning commonly organized by the IOC/MPR and OceanTeacher in English (South Africa) and Spanish (Colombia) by highlighting the need to continue the training efforts in other languages such as French and Portuguese, and in other regions.
66. The representatives of three Member States, two organisations took the floor. The following Member State and organization chose to provide records of their plenary intervention on this agenda item for the informational annex to the meeting report: India and GEBCO
67. The Assembly adopted Decision IOC-XXVIII,Dec.10.2 below.

#### **Implementation of IOC Integrated Coastal Area Management Strategy**

The Assembly,

Recalling IOC-XXVI/Dec.8.2,

Takes note of the progress in implementing the IOC ICAM Strategy, including activities related to marine spatial planning and large marine ecosystems (IOC/INF-1329);

Expresses its deep appreciation to the Government of Flanders (Belgium) for the secondment of an expert to the ICAM Programme (SPINCAM Project);

Invites Member States to support through extra-budgetary resources, as well as in-kind contributions, the ICAM Strategy and relevant project activities such as the organisation of an international conference on Marine Spatial Planning in 2016 at IOC Headquarters.

### 10.3 INTERNATIONAL POLAR PARTNERSHIP INITIATIVE

68. The Executive Secretary, Dr Vladimir Ryabinin, introduced this item. He reviewed the scientific and societal value of the expected outputs of the International Polar Partnership Initiative (IPPI), and the scope and objectives defined in the IPPI concept. He expressed that the IPPI seeks to strengthen cooperation and improve coordination and sharing of resources for polar activities through a common implementation plan for the development of observing systems, research, services, education and outreach, and practical application of knowledge. An Interagency Steering Group has initially developed and, later, refined a concept for the IPPI, which indicates the strong influence of the polar regions on the Earth system, the harsh polar environment and resultant high cost of operations, and the fact that no nation or organization is able to effectively achieve the objectives of their polar activities without strong cooperation with partners.
69. Dr Ryabinin reviewed the updated scope, objectives and expected outputs of the IPPI. He recalled the decision of the IOC Executive Council (EC-XLVII/Dec.6.4, 2014), which provided an advice to the IPPI Steering Group to

clearly identify added value, societal outputs, and scope, objectives, and expected results of IPPI and to identify synergies with other polar initiatives. Dr Ryabinin presented examples of the added value of the IPPI to existing IOC research, observation, data collection and management, and services programmes. As well, he recalled the recent decision of the 17<sup>th</sup> World Meteorological Congress (25 May–12 June 2015, Geneva, Switzerland), which encouraged the WMO Secretary-General to further develop a clear Framework of the Partnership, to be reviewed by WMO Executive Council in 2016, with a view to defining WMO's roles in and contributions to the future IPPI Framework, and the support to the idea of IPPI expressed by a number of other international organizations.

70. The Assembly stressed the importance of research and observations of the polar regions for all IOC Member States, and stressed that the IPPI Framework needed further development, with traceable consultation with the consultative Parties to the Antarctic Treaty and the Members of the Arctic Council.
71. The representatives of 12 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, Australia, Canada, Colombia, Denmark, France, India, Japan, Republic of Korea, Malaysia.
72. The Assembly adopted Decision IOC-XXVIII,Dec.10.3 below.

### **International Polar Partnership Initiative**

The Assembly,

Noting the revised Concept Paper for the International Polar Partnership Initiative (IPPI, IOC-XXVIII/2 Annex 9),

Having also noted the decision of the World Meteorological Congress-17 (25 May–12 June 2015, Geneva, Switzerland) on WMO participation in IPPI,

Encourages the Steering Group to develop a clear framework of the Partnership, acting in close coordination and consultation and respecting the interests and obligations of the consultative Parties to the Antarctic Treaty and similar interests of the members of the Arctic Council; and reiterates its request to the Executive Secretary to work towards the IPPI Framework being developed in close coordination and consultation with consultative parties to the Antarctic Treaty and members of the Arctic Council;

Requests the Executive Secretary to:

- secure IOC representation in the development of the IPPI Framework;
- submit the Framework for consideration of the IOC Executive Council at its 49<sup>th</sup> session in 2016 in order to analyse the possible participation, roles in and contributions of IOC to future IPPI activities, and report to it on the interactions and meetings attended in this regard.

Restricted distribution



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**INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION  
(of UNESCO)**

**Twenty-eighth Session of the Assembly**

UNESCO, Paris, 18-25 June 2015

**PROVISIONAL SUMMARY REPORT**

**Part 4**

(Agenda items 3.5, 4 (*decision*), 7.1.3, 9.1, 11 & 12)

Unedited version as adopted on 25 July 2015 in plenary session

### **3. STATE OF THE IOC, ITS REGIONAL SUBSIDIARY BODIES AND ITS PROGRAMME AND BUDGET**

#### **3.5 REPORT OF THE IOC (2014–2015) TO THE THIRTY-EIGHTH GENERAL CONFERENCE OF UNESCO**

1 The Executive Secretary introduced this item. He gave a brief overview of the highlights of this period and explained that, similarly to the report of the Executive Secretary on programme implementation, the reporting was done under the six functions identified in the IOC Medium-Term Strategy 2014–2021. He brought to the attention of the Assembly that the document also gives a brief introduction on the IOC status, mission and vision, given that this will be the first report to the General Conference under the current Medium-Term Strategy.

2 The Assembly agreed that the report could benefit from an analytical section on the challenges encountered and lessons learned in the process of programme implementation over the covered period, as well as from reflecting the main outcomes and messages from this session of the Assembly.

3 The representatives of two 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: Kenya.

4 The Assembly adopted Decision IOC-XXVIII,Dec.3.5 below.

#### **Report of the IOC (2014–2015) to the Thirty-Eighth General Conference of UNESCO**

The Assembly,

Recalling Article 3.2 of the Statutes and Rule of Procedure 49.2,

Having examined document IOC-XXVIII/6,

Requests the Executive Secretary to update, in consultation with the Officers, the current version of the report taking into account the main outcomes of the Assembly and including a section on challenges and lessons learnt; and submit the report on IOC activities (2014–2015) to the 38th General Conference of UNESCO (38 C/REP.9).

### **4. THE FUTURE OF IOC (*continuation*)**

*[...] Completes the report on item 4 published in Part 1 of the Draft Summary Report*

5 The Assembly adopted Decision IOC-XXVIII,Dec.4. Rev. below.

#### **The Future of the IOC**

The Assembly,

Having considered the report of the Chair of the Inter-sessional Working Group on the Future of IOC (IOC-XXVIII/2 Annex 4),



Noting the consensus reached by IOC Member States that the IOC Governing Bodies should maintain in their agendas an item and mechanism to enable Member States to continuously reflect and exchange ideas on this highly strategic and important subject,

Recognizing the financial difficulties currently faced by UNESCO and the IOC,

Expresses its appreciation to Professor Peter M. Haugan for his leadership and contribution to the work of the inter-sessional working group;

Decides that the process to be followed in order to frame the action of the governing bodies of IOC will be structured in two phases:

- (i) one for immediate action by entrusting the Officers of the Commission with the mission of raising awareness on, and clarifying within UNESCO the special statutes of IOC, emphasizing its functional autonomy and its role of intergovernmental specialized mechanism within the framework of UNESCO and in cooperation with the relevant UN system organization whose interest and activities are related to its purposes;
- (ii) a second phase, during the intersessional period, for in-depth consideration by Member States, with a view of ensuring to the Commission the required institutional and operational sustainability exploring, among others, the possibilities offered by Article 10 of the IOC statutes;

Requests the Officers with the support of the Executive Secretary to develop the messages adapted to specific audiences about the societal benefits of IOCs mission, programmes and activities based on the input from the sessional working group and the discussions in plenary, and to convey it clearly and explicitly in a timely fashion to UNESCO and other UN organizations;

Encourages Member States to use this common message as a reference to assist them in raising the profile of the mandate and work of the IOC and related capabilities in fostering a common national approach in intergovernmental fora;

Further requests the Executive Secretary, in close consultation with the Officers, to explore ways of increasing IOCs strategic and functional visibility using a range of communication tools, and its contribution to the post-2015 Sustainable Development Goals consistent with IOCs vision and report back to the Executive Council at its 49<sup>th</sup> session;

Decides that the inter-sessional work on this subject should continue under the leadership of the IOC Officers with a view of providing a fully developed document with recommendation to the IOC Executive Council at its 49<sup>th</sup> session in 2016.

## **7. OBSERVING SYSTEMS AND DATA MANAGEMENT**

### **7.1 OBSERVING SYSTEMS**

#### **7.1.3 Joint WMO-IOC Technical Commission for Oceanography and Marine Meteorology (JCOMM)**

6 The Co-President of the Joint IOC-WMO Technical Commission for Oceanography and Marine Meteorology (JCOMM), Nadia Pinardi, introduced this item. JCOMM is a Primary Subsidiary Body of the IOC Assembly and reports under IOC Rule of Procedure 48.3.

7 Dr Pinardi, reported on the activities of the Commission within the framework of the evolving JCOMM Strategy, 2012–2017 (2014, version 3). The JCOMM

strategic priorities of: (i) weather and ocean forecasting; (ii) disaster risk reduction; (iii) Global Framework for Climate Services; (iv) WMO Integrated Global Observing System (WIGOS) and WMO Information System (WIS) implementation; and (v) capacity development guide the activities of JCOMM, connecting science and technology to WMO and IOC Member States' need for services and knowledge for sustainable development. Dr Pinardi informed the IOC Assembly of activities including: JCOMM's new Cross Cutting Task Team on Integrated Marine Meteorological and Oceanographic Services for WIS (TT-MOWIS) to improve the interoperability with WIS of the near real time and delayed mode data sets of ocean observations, as well as of analysis and forecasting products; the successful transition of the JCOMM in situ Observing Programme Support Centre (JCOMMOPS) to Brest, France in March 2015; and the IOCAFRICA-JCOMM African Summer School on Application of Ocean and Coastal Data and Modelling Products.

- 8 Dr Pinardi reported on recent developments under JCOMM with regard to the establishment of a network of Centres for Marine-Meteorological and Oceanographic Climate Data (CMOCs). The Assembly was informed of the successful evaluation by JCOMM of the application of the State Oceanic Administration (SOA) National Marine Data and Information Service (NMDIS) in Tianjin, China to become a CMOC, and noted the adoption by WMO-CG-17 of Resolution CG-17 4.2.3(3)/1 (Designation of the Centre for Marine Meteorological and Oceanographic Climate Data—CMOC in Tianjin, China), subject to parallel approval by the IOC Assembly at this session. The Assembly thanked China for its commitment in this regard, noting the substantial benefits expected from the CMOCs to addressing the needs of IODE, GOOS and JCOMM.
- 9 The Assembly appreciated the work JCOMM does in support of all IOC High Level Objectives through its primary mandate to coordinate ocean and meteorological observation systems. Recognizing that the majority of observation networks depend on research funding and that a lack of sustained funding models for the networks continues to be a risk for the system, the Assembly called upon Member States to maintain their substantial commitments to JCOMM programmes. The Member States encouraged JCOMM to engage regional activities, such as GRAs, ODINs, RMICs, and the CMOC network, and emphasized the value to JCOMM of participation in the IIOE-2.
- 10 China welcomed the strong support of Member States for the approval of the CMOC in Tianjin, and reiterated its support for the CMOC and other regional activities.
- 11 The representatives of 7 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: Australia, China, Japan, Republic of Korea, New Zealand.
- 12 The Assembly adopted Decision IOC-XXVIII,Dec.7.1.3 below.

**Joint WMO-IOC Technical Commission for Oceanography  
and Marine Meteorology (JCOMM)**

The Assembly,

## I. JCOMM Activities

Having examined the reports of 4<sup>th</sup> Session of JCOMM and the 11<sup>th</sup> Session of the JCOMM Management Committee,

Notes with appreciation the financial and in kind support provided to JCOMMOPS by France (Ifremer, CLS, Brest métropole, département Finistère, and région Bretagne), as well as the financial support of many other Member State organizations; and urges Member States to continue their support to JCOMMOPS;

Agrees to consider an overall JCOMM programme and budget as a part of the IOC Programme and Budget resolution XXVIII-3;

Notes the formation of the JCOMM Task Team on Integrated Marine Meteorological and Oceanographic Services for WIS (TT-MOWIS);

Encourages Member States to propose experts to participate in the TT-MOWIS;

## II. Establishment of a Centre for Marine-Meteorological and Oceanographic Climate Data (CMOC)

Recalling decisions by the IOC Executive Council and World Meteorological Congress:

- (i) IOC EC-XLV, Dec.3.2 accepting WMO-IOC/JCOMM-4/3s Report of the Fourth Session of the Joint WMO-IOC Technical Commission for Oceanography and Marine Meteorology (JCOMM), and Recommendation 2 contained therein, including Terms of Reference for CMOCs, and mechanism for formal appointment of a CMOC,
- (ii) WMO Resolution 4.2.3(03)/1 (Cg-17) Designation of the Centre For Marine-Meteorological And Oceanographic Climate Data (CMOC) In Tianjin, China,

Noting the Summary Background for New Centres for Marine-Meteorological and Oceanographic Climate Data in Tianjin, China as reported in the Report by the co-presidents,

Welcomes the proposal from China to run a CMOC at the National Marine Data and Information Service (NMDIS) of the State Oceanic Administration (SOA), China;

Acknowledges the successful demonstration provided by the National Marine Data and Information Service, China, regarding its capability to run a CMOC, including statement of compliance and commitment in terms of CMOC capabilities and corresponding functions, in accordance with the procedures and criteria established by JCOMM, and the IOC International Oceanographic Data and Information Exchange (IODE);

Approves the establishment of a Centre for Marine-Meteorological and Oceanographic Climate Data (CMOC) at the National Marine Data and Information Service (NMDIS) of State Oceanic Administration (SOA) in Tianjin, China (CMOC/China).

## 9. CAPACITY DEVELOPMENT

### 9.1 REPORT OF THE INTERSESSIONAL WORKING GROUP FOR THE DEVELOPMENT OF THE IOC CAPACITY DEVELOPMENT STRATEGY

- 13 The Chair of the Intersessional Working Group for the IOC Capacity Development Strategy, Prof. Adoté Blim Blivi introduced this item. He recalled that the IOC Executive Council, at its 47<sup>th</sup> session, through Decision EC-XLVII/Dec. 6.1, had decided to reconstitute the Intersessional Working Group for the IOC Capacity

Development Strategy and had instructed the Chair of the Group to submit the final draft of the IOC Capacity Development Strategy and associated documentation to this session of the Assembly.

- 14 He reported that in response to IOC Circular Letter, 2531 (August 2014) 36 Member States designated members to the Intersessional Working Group. A first draft of a revised Strategic Plan was circulated to the members of the Group as well as to IOC programme managers by email on 1 December 2014. This resulted in 16 responses and a revised version of the Strategic Plan. A face-to-face meeting of the Intersessional Working Group was held at UNESCO Headquarters on 16–18 February 2015. The meeting was attended by 18 participants from 13 Member States. The meeting further revised the Strategic Plan document, “IOC Capacity Development Strategy for 2015-2021” including extensive background information in annexes. In order to ensure the widest possible awareness of the document amongst IOC communities of practice, the group recommended that presentations on the Strategy be delivered at IODE-XXIII, IOCAFRICA-III, IOCARIBE-XIII and WESTPAC-X before the Assembly.
- 15 A sessional working group further reviewed and revised the draft resolution and strategy document.
- 16 This strategic framework provides six recommendations and 13 activities detailed in numerous actions. The recommendations call for investing in people and the institutions of which they are a part, enhancing access to scientific tools and methodologies, reinforcing IOC’s capabilities to provide services to Member States, enhancing the communication between scientific and policy makers communities, expanding ocean literacy in civil society and mobilizing resources to accomplish these goals. While this framework provides general guidance on elements of an implementation plan yet to be developed, it explores venues for elevating IOC’s impact to the scale required. The conclusions identify elements of a draft work plan including conducting needs assessments to establish CD work plans, mobilizing associated resources and enhanced communication and collaboration.
- 17 The Assembly welcomed the IOC Capacity Development Strategy (2015–2021) emphasizing that capacity development is a key function of the IOC.
- 18 The Assembly stressed the need to measure the effectiveness and impact of the new strategy on a regular basis in order to identify and address any weaknesses, and to further fine-tune the strategy. The secretariat was instructed to publish the IOC Capacity Development Strategy, 2015–2021.
- 19 The Assembly advised that implementation of the strategy should provide special attention to young researchers and their requirements.
- 20 The representatives of 15 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: Australia, China, France, Japan, Kenya, Republic of Korea, Tanzania, USA
- 21 The Assembly adopted Resolution XXVIII-2 submitted by Japan, USA, Belgium, Tanzania, Togo, Trinidad and Tobago, Portugal and India.

## 11. ADMINISTRATION AND MANAGEMENT

### 11.1 REPORT BY THE CHAIRPERSON OF THE FINANCIAL COMMITTEE ON THE IOC DRAFT PROGRAMME AND BUDGET FOR 2016–2017 (DRAFT 38 C/5)

22 The Chair of the Financial Committee reported to the Assembly on the results of the Committee's review of the Report on Budget Execution 2014 and Draft Programme and Budget for 2016–2017, in accordance with Rule of procedure 8.1(c). He informed the Assembly that the Financial Committee had several very productive meetings and thanked the Member States that participated in its consensual in-depth discussions in the spirit of constructive collaboration. He then made a detailed presentation of the work carried out by the Committee, its main conclusions and recommendations reflected in the draft resolution prepared by the Financial Committee for consideration by the Assembly.

23 The Assembly was unanimous in congratulating the Chairman of the Financial Committee for the exceptional quality of his leadership and the considerable work accomplished in a short period of time.

24 The Assembly adopted Resolution XXVIII-3 submitted by Argentina, Australia, Belgium, Brazil, Cameroon, Canada, China, Cote d'Ivoire, Denmark, France, Germany, Greece, India, Japan, Kenya, Korea (Republic of), Malaysia, Norway, Portugal, Russian Federation, South Africa, Spain, Thailand, Trinidad and Tobago, Turkey, United Kingdom, and United States of America.

### 11.2 SELF-ASSESSMENT OF THE IOC GOVERNING BODIES IN FOLLOUP TO THE UNITED NATIONS JOINT INSPECTION UNIT'S (JIU) RECOMMENDATIONS CONCERNING THE METHODS OF WORK OF UNESCO'S INTERGOVERNMENTAL BODIES

25 The Executive Secretary informed the Assembly that an audit of the Governance of UNESCO and dependent entities, funds and programmes, including the IOC had been initiated at the request of the UNESCO General Conference (37 C/Resolution 96). This audit has been entrusted to the External Auditor with a view to formulating governance reform and cost-saving measures for the 38<sup>th</sup> General Conference of UNESCO in 2015 and was addressed to the IOC Governing Bodies through its chairman in May 2014. In the framework of this strategic review, the governing bodies of IOC were invited to '*perform a self-assessment of the overall relevance of their work in relation to their specific terms of reference as well as the efficiency and effectiveness of their meetings, including the impact and utility of experts' time*', with the IOC Secretariat limiting its role to providing factual information as necessary.

26 This item was included in the agenda of the IOC Executive Council at its 47<sup>th</sup> session (1–4 July 2014). Through EC-XLVII/Decision 7.2, the Executive Council stressed '*the need that the unique role of IOC in the UN system in relation to ocean science and the scientific base for ocean management and its position as a body with functional autonomy within UNESCO be reflected in any nomenclature of UNESCO's intergovernmental bodies or any other parts of the final governance review document*' and entrusted the IOC Officers, in consultation with IOC Member States,

to answer the audit on behalf of the governing bodies of the Commission taking into account advice already received from the open-ended inter-sessional working groups dealing with financial matters and the Future of IOC.

- 27 The IOC Chair submitted all the requested information by the deadline, following an elaborate consultative process with the Commission's Officers and Member States, while the Secretariat provided some additional factual information, as contained in IOC-XXVIII/Inf-4.
- 28 The interim report of the External Auditor to the 196<sup>th</sup> session of the UNESCO Executive Board (196 EX/23.INF5) contains a number of observations and suggestions concerning the IOC that, in the Secretariat's opinion, will require a follow-up with the external auditor's team, following its review and discussion by the Assembly.
- 29 The Executive Secretary further informed the Assembly that on 16 June the External Auditor shared with the UNESCO Secretariat a draft audit report on governance for comments prior to its finalization. This provisional draft is available in French only and the external auditors have conveyed their apologies for any inconveniences this may cause. The Chair of IOC is invited to transmit comments directly to the External Auditor by 3 July 2016. The Secretariat is invited to provide comments from its perspective to indicate: (i) factual corrections and (ii) to indicate, for recommendations addressed to the Secretariat, whether there would be any difficulties in implementation. Lack of response will indicate a validation of factual content for the External Auditor.
- 30 The Secretariat will be working in close collaboration with the UNESCO Legal Advisor to prepare comments and will provide every support required for the formal communication from Chair on behalf of the Officers and Member States of the Commission.
- 31 No Member States took the floor.
- 32 The Assembly adopted Decision IOC-XXVIII,Dec.11.2 below.

**Self-Assessment of the IOC Governing Bodies in Follow-up to the United Nations Joint Inspection Unit's (JIU) Recommendations Concerning the Methods of Work of UNESCO'S Intergovernmental Bodies**

The Assembly,

Having considered the elements of the audit and in particular the two questionnaires submitted by the Chair of IOC and the interim report of the external auditor to the 196<sup>th</sup> session of the UNESCO Executive Board,

Stresses the need that the unique role of IOC in the UN system in relation to ocean science and the scientific base for ocean management and its position as a body with functional autonomy within UNESCO be reflected in any nomenclature of UNESCO's intergovernmental bodies or any other parts of the final governance review document;

Entrusts the IOC Chair and Officers, with the assistance of the Secretariat, to follow up with the team of the external auditor on behalf of the governing bodies of the Commission to ensure that all inconsistencies or recommendations that did not meet the approval of the IOC Assembly be clearly pointed out and, to the extent possible,

taken into account in the final report of the external auditor to the UNESCO General Conference.

### 11.3 ELECTIONS OF THE OFFICERS OF THE COMMISSION AND MEMBERS OF THE EXECUTIVE COUNCIL

33 Captain Javier Valladares, Chair of the Nominations Committee reported on this item. He informed the Assembly that all the nomination forms received as of Friday 18 June 2015 at 18.00 hrs by the Committee were valid and had therefore been forwarded to the Assembly as document IOC-XXVIII/NOM/WP3.

34 He further informed Assembly that: (i) Vanuatu and Palau – both belonging to Electoral Group IV had joined IOC since the 27<sup>th</sup> Session of the Assembly; (ii) the number of seats on the Executive Council had not changed since the 25<sup>th</sup> Session of the Assembly; and (iii) following the adoption of Resolution XXV-15 concerning the expansion of the quota of seats of Group II, the allocation of seats for Groups I and II, starting after the 25<sup>th</sup> Session of the Assembly, would be 10 seats for Group I and 3 seats for Group II; (iv) the quotas of seats for Groups III, IV and V remain unchanged.

#### 11.3.1 Election of the Chair of the Commission

35 The Assembly noted that there was only one candidate for the position of Chair. Professor Peter Haugan (Norway) was therefore elected by acclamation.

#### 11.3.2 Election of the Vice-Chairs of the Commission

36 The Assembly noted that there was only one candidate for each of Electoral Groups I, II, III, IV and V for the positions of Vice-Chair. The following were therefore elected by acclamation:

Mr Stephen Peter Hall (UK) – Group I

Dr Alexander Postnov (Russian Federation) – Group II

Mr Ariel Hernan Troisi (Argentina) – Group III

Dr Somkiat Khokiattiwong (Thailand) – Group IV

Dr Ashley Johnson (South Africa) – Group V

#### 11.3.3 Election of the Members of the Executive Council

37 The Assembly noted that there were 9 candidates for the remaining Member State seats on the Executive Council for Electoral Group I, and that the number of those remaining seats was 8 and consequently a ballot would be needed for Electoral Group I.

38 The Assembly noted that there were 2 candidates for the remaining Member State seat on the Executive Council for Electoral Group II, whereas the maximum number of those seats was 2. The candidate Member States were therefore declared elected by acclamation.

39 The Assembly noted that there were 8 candidates for the remaining Member State seats on the Executive Council for Electoral Group III, which was the maximum number of those seats. The candidate Member States were therefore declared

elected by acclamation.

40 The Assembly noted that there were 8 candidates for the remaining Member State seats on the Executive Council for Electoral Group IV, which was the maximum number of those seats. The candidate Member States were therefore declared elected by acclamation.

41 The Assembly noted that there were 9 candidates for the remaining Member State seats on the Executive Council for Electoral Group V, whereas the number of those remaining seats was eight and consequently a ballot would be needed for Electoral Group V.

42 After a ballot to elect the representatives to the Executive Council from Electoral Groups I and V, the Assembly elected:

- (i) Belgium, Canada, Denmark, France, Germany, Portugal, Turkey, USA, to the Executive Council for Electoral Group I;
- (ii) Cote d'Ivoire, Egypt, Kenya, Morocco, Senegal, Tanzania, Togo, Tunisia to the Executive Council for Electoral Group V.

43 The membership of the Executive Council for the next intersessional period and the 29<sup>th</sup> Session of the Assembly is given in Annex \_\_\_\_ to the present report.

#### 11.4 29<sup>TH</sup> SESSION OF THE ASSEMBLY AND 49<sup>TH</sup> AND 50<sup>TH</sup> SESSIONS OF THE EXECUTIVE COUNCIL

44 The Executive Secretary introduced this item. He highlighted the fact that the present session had been scheduled over a period of six working days compared to 7,5 working days in 2013, 10 working days in 2011 and 8,5 days in 2009. Similarly the duration of Executive Council plenary sessions decreased from 7 to 3.5 working days. Budgets of governing bodies have reduced by 40% over the same period. Sponsorship of services (interpretation and catering) and side events during governing body sessions by Member States and partner organizations have become an increasingly significant financial support. Dr Ryabinin reminded the Assembly that some Member States did not want to consider hosting sessions of IOC governing bodies under the present situation.

45 The interim report on the current Audit of the Governance of UNESCO and Entities (item 11.2) shows that it is premature to consider that the Audit may lead to a consensus by Member States on new principles that will guide intergovernmental meetings in the future. Dr Ryabinin strongly encouraged Member States to express views on the organization of their governing bodies and future sessions in the evaluation questionnaire prepared for the present session.

46 Dr Ryabinin reminded the Assembly of the recommendations of the Executive Council, acting as the Steering Committee for this Assembly, on the dates of the 49th session of the Council in 2016 and duration of the 29<sup>th</sup> session of the Assembly in 2017 taking into account scheduled or anticipated dates of major international commitments of the oceanographic communities and IOC's partners in June 2016.



- 47 The Chairman reminded the discussion under item 2.4 on the results of the Ocean Science Day that took place before this session and invited the Assembly to decide on organizing such an event at the next session of the Assembly.
- 48 A list of proposed future IOC Memorial Lectures topics was presented. The Member States were encouraged to suggest additional topics, which can be submitted to Luis Valdes for consideration by the Officers at their January 2016 and 2017 meetings.
- 49 The Assembly when considering scheduling of future governing body sessions noted that timing of the assembly vis-à-vis several subsidiary body sessions prevented some documentation from being available two months in advance. The Assembly also considered improvements to the session's reporting procedures and other arrangements based on the comments from the floor and responses to evaluation questionnaire for the session.
- 50 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: \_\_\_\_\_.
- 51 The Assembly adopted Decision IOC-XXVIII,Dec.11.4 below.

**Dates and Places of next Sessions  
of the Executive Council and Assembly**

The Assembly,

Recalling the recommendations of the Executive Council at its 48<sup>th</sup> session (EC-XLVIII, Dec.4.),

Decides to hold:

- (i) The 49th session of the Executive Council for 3.5 days in UNESCO Headquarters, Paris over the period of 6–10 June 2016,
- (ii) The 29<sup>th</sup> session of the Assembly for a duration of six working days at UNESCO Headquarters in June 2017, preceded by a one-day session of the Executive Council acting as the steering committee of the Assembly and an Ocean Science Day;

Calls on the Member States to consider the possibility of providing voluntary extrabudgetary contributions to allow their effective organization;

Requests the Executive Secretary to approach Members States and seek their broad input on the themes of IOC memorial lectures for subsequent consideration by the Officers of the IOC;

Invites the Executive Secretary to promote visibility thereof.

**12. ADOPTION OF THE SUMMARY REPORT AND RESOLUTIONS**

- 52 The Chair of the Resolutions Committee reported to the Assembly on the work of the Resolutions Committee during the session (Annex \_\_\_ to the present report).
- 53 The IOC Chair then invited the Assembly to adopt, in plenary, the draft

decision on the Future of the IOC (item 4) and resolutions that were still pending after discussion in plenary:

- Resolution XXVIII-1= Second International Ocean Indian Expedition (item 5.3)
- Resolution XXVIII-2= IOC Capacity Building Strategy (2015-2021) (item 9.1)
- Resolution XXVIII-3= Financial Matters of the Commission (item 11.1)

54 The draft summary report of the discussions of the present session was presented in four parts to the Assembly. It was reviewed and completed during the session.

55 The Assembly adopted Decision IOC-XXVIII,Dec.12 below.

### **Working arrangements and summary report**

The Assembly,

1. Welcoming the efforts since 2012 to adapt the documentation to shorten sessions of governing bodies and the formal strengthening of decisions as the core output of IOC governing body sessions with resolutions and the scope and definition of resolutions adopted by decision IOC-XXVII,Dec.6.4,
2. Identifies areas of further improvements for governing body session working arrangements as follows:
  - (i) identify best practices of other intergovernmental organisations with a view to study how they could contribute to the future conduct of sessional and intersessional business with a view to apply these to the work of the Commission, as appropriate;
  - (ii) strengthen the terms of reference of existing and future intersessional working groups in order to optimise their work and ensure active participation and contribution of IOC Member States during intersessional periods; including through the use of circular letters;
  - (iii) through consultation between the Officers and the Secretariat, consider ways of rendering the Action Paper more strategic and strongly focused on the substance of the items being debated; and ensuring better reflections of national positions in the reports of IOC governing bodies;
  - (iv) ensure the availability of the governing body documentation in due time and in accordance with IOC Rules of Procedures;
  - (v) implement as far as possible paperless sessions of future IOC governing bodies;
3. Adopts the Draft Summary Report for the present session;
4. Requests the Executive Secretary to circulate the summary report to Member States within one month after the closure of the session and to inform the Officers of the results of the evaluation questionnaire in order to pursue the reflection on this issue.

### **13. CLOSURE**

- 56 The Assembly met in plenary session during 6 days from 18 to 25 June 2015, considered 36 items on its agenda and approved 30 decisions and 3 resolutions. The plenary meeting was supported by some 21 preparatory meetings, 13 meetings of electoral and regional groups and 7 information side meetings during the session.
- 57 The Chairman of the Commission congratulated the incoming Chair and Vice-Chairs, and thanked the outgoing Vice-Chairs for their contributions. The Chair also thanked delegates, partners, individuals who chaired sessional committees and groups, the Rapporteur for the session and UNESCO staff and IOC Secretariat.
- 58 The Assembly congratulated the Chairman for his dedicated work to the Commission during two consecutive terms and the Executive Secretary offered him the gavel of the session.
- 59 The new Chairman, Peter Haugan, invited the elected Officers, delegates of IOC Member States and representatives of partner organizations to work actively during the intersessional period.
- 60 The Chair of the Commission closed the 28th Session of the Assembly at 15:30 on Thursday 25 June 2015.



## 4. 한국대표단 발언문







**INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION**  
(of UNESCO)

**Twenty-eighth Session of the Assembly**  
UNESCO, Paris, 18–25 June 2015

**TEMPLATE FOR SUBMISSION OF WRITTEN RECORDS  
TO THE ASSEMBLY SUMMARY REPORT**

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Member State/Name of Delegation : **REPUBLIC OF KOREA**

Agenda Item : **3.1**

Date and Time of Intervention : **2015.06.18 MORNING**

NAME OF DELEGATION POINT OF CONTACT FOR THIS STATEMENT: **JONG HO YUN**

Title Agenda Item : **THE CHAIR'S STATEMENT**

**Statement:**

Thank you, Mr. Chair.

The Republic of Korea would like to thank the chair, Dr. Sang-Kyoung Byun, for his clear and comprehensive report highlighting the important activities carried out during the last intersessional period.

I also like to take this opportunity to express my sincere appreciation to the chair's leadership to engage member states into close collaboration by hosting series of regional forums during the last 4 years. As mentioned in the chair's report, the forums were held in four IOC's regional Groups, Group II, III, IV, and V for the discussion on the future of IOC as well as ocean observation and services, with the financial support from the Republic of Korea. These forums provided good opportunities for the member states to establish stronger regional network. I believe that this initiative has raised significantly the IOC's profile in the regional societies.

In this regard, the Korean government is willing to support continuously the IOC Chair's initiative of strengthening close regional networks within the IOC framework by providing financial support.

Thank you.





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Member State/Name of Delegation : **THE REPUBLIC OF KOREA / YOUN HO LEE**

Agenda Item : **3.1.1**

Date and Time of Intervention : **205.06.18 AFTERNOON**

NAME OF DELEGATION POINT OF CONTACT FOR THIS STATEMENT: **YOUN HO LEE**

Title Agenda Item : **WESTPAC**

**Statement:**

The Republic of Korea would like to congratulate on the successful performance of various activities by WESTPAC and resulting in concrete accomplishments. These activities have shown good examples of how to raise the IOC visibility in the region as well as in the global communities.

As a Vice-Chair of WESTPAC, I would like to express my sincere gratitude to the Member States and their scientists who have participated in the activities and produced wonderful outcomes. I also extend my sincere thanks to the WESTPAC secretariat and its staffs for their heartfelt effort and dedication for the effective management of the numerous activities even with a limited man-power and support. Without their hard work and commitment, many of the activities would not have been so successful.

The Republic of Korea has been actively participating in IOC-WESTPAC's mission, being involved in a number of activities. For example, Korea has played a major role in the DRMREEF project which is aiming to enhance the capacity of member states with regard

to conservation of marine biodiversity and cooperative management of the marine biological resources in the coral reef areas.

Again, as a Vice-Chair of WESTPAC, I would like to extend my deep appreciation to the Government of Thailand for hosting and supporting the WESTPAC Office, the Government of Vietnam for hosting the 9th WESTPAC Scientific Symposium, the Government of China for operating the IOC Regional Training and Research Center on Ocean Dynamics and Climate, as well as to all other WESTPAC Member States for their financial and in-kind support.

Finally, I would like to draw the IOC Member states' attention to the WESTPAC's wonderful achievements and contribution in terms of enhancement of IOC visibility in the society, and also to the significant role of the IOC-WESTPAC Office who is making such accomplishment possible. In this regard, I would like to ask the IOC Executive Secretary to consider any possibility of upgrading the IOC-WESTPAC Office in order to respond to the ever-increasing demand of new activities from the Member States.

Before I conclude my intervention, I would like to refer to the decision regarding WESTPAC in the action paper and propose addition of a couple of paragraphs to the decision to fully reflect the achievements of WESTPAC, which I have submitted to the secretariat in close consultation with the WESTPAC officers and the member states. I would like to ask the secretariat to display the new text of decision on the screen for further discussion and consideration of the Member States.



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(of UNESCO)

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Member State/Name of Delegation : **REPUBLIC OF KOREA /**

Agenda Item : **3.2**

Date and Time of Intervention : **2015.06.18 MORNING**

NAME OF DELEGATION POINT OF CONTACT FOR THIS STATEMENT: **YOUN HO LEE**

Title Agenda Item : **SECRETARY'S REPORT ON PROJECT AND BUDGET**

**Statement:** .....

Thank you, Mr. Chairman.

The Republic of Korea would like to congratulate on the Executive secretary, Dr. Vladimir Ryabinin's successful performance during the first 3 months. I am convinced that, with his outstanding leadership, the IOC will advance successfully and provide solutions to the society for the imminent challenges and issues that the humankind are facing with in relation to the Ocean processes, which will make IOC more visualized in the global community.

I would like to express my sincere gratitude for the efforts of Executive Secretary in preparing and presenting the comprehensive report on the recent IOC activities and budgetary situation. My delegation notes with satisfaction that the Secretariat under the leadership of Executive Secretary is successfully overcoming the difficult budgetary situation by seeking the pragmatic focus and by enhancing productivity and efficiency. Even though the current situation is posing difficulties on the program delivery, it is indeed crucial that IOC should be engaged in global challenges and provides

solutions and scientific explanations to the society. I believe that IOC can manage to bridge the gap between the growing expectation from society and the limited resources that IOC can mobilize at the moment. In this regard, I would like to point out that the IOC headquarter needs to increase communication with the regional subsidiary bodies and the member states in order to find more resources and to co-design the programs that meet the societal needs.

The Republic of Korea continues to extend its efforts for regional cooperation in consideration of the IOC framework. I strongly believe that the successful implementation of IOC programs relies on active participation of Member States and also on the close regional and regional to global collaboration. In this context, I would like to reaffirm that Korean government will continue commitment to the IOC/WESTPAC and also to the other IOC's global projects which will raise the IOC's profile in the regional and global communities.

Thank you.



**INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION**  
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Member State/Name of Delegation : **REPUBLIC OF KOREA**

Agenda Item : **4**

Date and Time of Intervention : **19 JUNE 2015 MORNING**

NAME OF DELEGATION POINT OF CONTACT FOR THIS STATEMENT: **HYUN YEONG KIM**

Title Agenda Item : **THE FUTURE OF IOC**

**Statement:**

For the future of IOC, last 47th Session of the Executive Council identified three recommendations to solve the pending difficulties we have faced, which are briefly mentioned in the summary report.

Considering current budget situation and restructuring as well as engaging in the post-2015 Development Agenda, this agenda has become more important to IOC. In this regard, Republic of Korea hopes and reiterate this agenda remain as one of IOC's main agenda in order to collect and reflect member states' opinions, and to develop more specific strategy and solutions towards the more bright future of IOC.

As mentioned in the Chair's statement, IOC needs to strengthen its function in ocean

observations and services for the future of IOC. As a contribution on this effort, Republic of Korea is pleased to host a series of four regional forums in Eastern Europe, Latin America, Asia and Africa on the future of IOC as well as operational oceanography to establish stronger regional network among the member states during the last 4 years. We are willing to support continuously such activities for further international cooperation and network building for the future of IOC.



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Member State/Name of Delegation : **The Republic of Korea**

Agenda Item : 5.1

Date and Time of Intervention : 22 June, Morning

NAME OF DELEGATION POINT OF CONTACT FOR THIS STATEMENT: Shinhee Cho

Title Agenda Item : Global Ocean Science Report

**Statement:**

Republic of Korea would like to contribute to the Global Ocean Science Report as this report aims to help the scientific community, the policy makers, and the funding agencies by providing information on the status of each nation's capacity in marine science.

One most important component that enabled ROK to complete the report smoothly and on time, is the operation of Korea oceanographic commission. According to the IOC's recommendation, Korea Oceanographic Commission was established.

Since then, KOC has been playing a major role in collecting and sharing information in KOREA but also in communication between IOC and the marine institutions within KOREA.

With this well managed focal point, Korea was able to complete GOSR within a short period of time. Korea will continuously support the GOSR initiative of IOC.



**INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION**  
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**Twenty-eighth Session of the Assembly**  
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Member State/Name of Delegation : **REPUBLIC OF KOREA, SUNG HYUP YOU**

Agenda Item : **5.2**

Date and Time of Intervention : **22 JUNE 2015**

NAME OF DELEGATION POINT OF CONTACT FOR THIS STATEMENT: **SUNG HYUP YOU**

Title Agenda Item : **WCRP REPORT & REVIEW**

**Statement:**

Korea Delegation strongly agrees the activities of WCRP. We know that climate change is the most important problem in the world. In order to mitigate global and regional climate change, the strong cooperation and collaboration between many countries are essential. In relation to IPCC AR6, the Korea Meteorological Administration, KMA will support activities of WCRP by cooperation with U.K Met-office with joining to CMIP6(Coupled Model Intercomparison Project phase 6). Korea Delegation also welcome WCRP-IOC collaboration project, and will actively participate in related projects and activities to mitigate global climate change.





**INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION**  
(of UNESCO)

**Twenty-eighth Session of the Assembly**  
UNESCO, Paris, 18–25 June 2015

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Member State/Name of Delegation : **The Republic of Korea**

Agenda Item : **6.1**

Date and Time of Intervention : 22 June, Morning

NAME OF DELEGATION POINT OF CONTACT FOR THIS STATEMENT: Shinhee Cho

Title Agenda Item : UN World Ocean Assessment

**Statement:**

Identifying how marine ecosystem interacts with human activities becomes important for maintaining the healthy and productive ocean. In addition, informing the decision makers about the status of ocean health and its function is of the most importance for planning and implementation of ecosystem based management.

The republic of Korea welcomed the World Ocean Assessment initiative and has been participating actively through attending a number of expert works, as a member of bureau, and contributing a voluntary trust fund.

By doing so, Republic of Korea was able to publish the National assessment Report last year!



**INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION**  
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Member State/Name of Delegation : **THE REPUBLIC OF KOREA**

Agenda Item : **6.2**

Date and Time of Intervention : **22 JUNE 2015, MORNING**

NAME OF DELEGATION POINT OF CONTACT FOR THIS STATEMENT: **Shinhee Cho**

Title Agenda Item : **GEBCO GC ToR-RoP**

**Statement:**

The Republic of Korea has welcomed the activities of GEBCO and contributed its activities for a long time. However, we found one point unreasonable and problematic in the revised proposal of GEBCO ToR and RoP, the Rules of Procedure 1.4. In this regard, the Republic of Korea supports the suggestion of Canada, Germany, UK, China, Portugal, Turkey and many other member states who proposed the complete deletion of Rules of Procedure 1.4.



**INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION**  
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**Twenty-eighth Session of the Assembly**  
UNESCO, Paris, 18–25 June 2015

**TEMPLATE FOR SUBMISSION OF WRITTEN RECORDS  
TO THE EXECUTIVE COUNCIL SUMMARY REPORT**

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Member State/Name of Delegation: **REPUBLIC OF KOREA, JOON-SOO LEE**

Agenda Item: **7.1.1**

Date and Time of Intervention: 22 JUNE 15.00-

NAME OF DELEGATION POINT OF CONTACT FOR THIS STATEMENT: JOON-SOO LEE

Title Agenda Item : GLOBAL OCEAN OBSERVING SYSTEM

**Statement:**

The Republic of Korea expresses its gratitude to the GOOS Co-Chairs, secretariats and the GOOS-Steering Committee for having successfully led the GOOS Project during the intersessional period, despite the limited budget. The GOOS Project is key to implementing the IOC Medium-Term Strategy for 2014-2021 and achieving the priority goals. The Republic of Korea has also been contributing to the GOOS Project by participating in the GOOS Regional Alliance, IODE, JCOMM and so forth. However, in order to practically achieve the objectives of the GOOS Project, more active participation from the Member States is required, and efforts are needed to make the achievements benefit all Member States. In addition, it is necessary to activate the area where practical cooperations are not properly taking place due to national peculiarities or differential capabilities. The Republic of Korea will continue to support the activities of the GOOS projects.



**INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION**  
(of UNESCO)

**Twenty-eighth Session of the Assembly**  
UNESCO, Paris, 18–25 June 2015

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Member State/Name of Delegation : **REPUBLIC OF KOREA, SUNG HYUP YOU**

Agenda Item : **7.1.3**

Date and Time of Intervention : **24 JUNE 2015**

NAME OF DELEGATION POINT OF CONTACT FOR THIS STATEMENT: **SUNG HYUP YOU**

Title Agenda Item : **OBSERVING SYSTEMS & DATA MANAGEMENT (JCOMM)**

**Statement:**

Korean Delegation continues its strong support for JCOMM. Korea acknowledge its critical role to bridge meteorological and oceanographic communities, and in particular, to develop oceanographic and marine services for society.

Korean delegation welcomes the JCOMM initiative to endeavor standardization of various marine observation and data through regional efforts. So, Korean Delegation welcome CMOCs of China and Morocco's proposal for a RMICs for RA 1 region, and will actively participate in related activities to share marine technologies.

Republic of Korea is also supporting the activities and endeavors to develop capacity building program.

In particular, the Korea Meteorological Administration, KMA provides various educational and training courses for example, ICT, ODA, KOICA program to those developing countries every year. However, most of participants requires to help them

establish an operational ocean prediction system which they can actually produce practical forecasts for currents, waves and storm surges and so on.

Therefore, Korean delegation would like to emphasize to have interests for capacity building program to build an operational ocean prediction system tailor-made for each developing countries through the assistance of the nations possessing operational ocean forecasting systems.



**INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION**  
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Member State/Name of Delegation: **REPUBLIC OF KOREA, JOON-SOO LEE**

Agenda Item: **7.2.1**

Date and Time of Intervention: 23 JUNE 15.00-

NAME OF DELEGATION POINT OF CONTACT FOR THIS STATEMENT: JOON-SOO LEE

Title Agenda Item : INTERNATIONAL OCEANOGRAPHIC DATA AND INFORMATION EXCHANGE (IODE)

**Statement:**

The Republic of Korea congratulates the 10<sup>th</sup> anniversary of the establishment of the IOC Project Office for IODE in Ostend, Belgium, and expresses our appreciation to Mr. Peter Pissenssens for his great efforts as the head of the Project Office, and to the Belgian Government for the continued support. We also appreciate the previous co-chairs, Ms. Iona and Mr. Troisi, leading changes in IODE for the past 4 years, and believe that the newly elected co-chairs, Ms. Chandler and Prof. Michida, will continue to lead the successful change of the IODE. Above all, active participation of the Member States is a key element for the bright future of the IODE. Recognising the important role of the IODE as a core IOC programme, the Republic of Korea endorses the outcomes of the 23<sup>rd</sup> Session of the IODE Committee, including

suggested ways to overcome the identified weaknesses of the IODE, and will continue to support and participate in the IODE activities.



**INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION**  
(of UNESCO)

**Twenty-eighth Session of the Assembly**  
UNESCO, Paris, 18–25 June 2015

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Member State/Name of Delegation : **REPUBLIC OF KOREA, SUNG HYUP YOU**

Agenda Item : **8.1.1**

Date and Time of Intervention : **23 JUNE 2015**

NAME OF DELEGATION POINT OF CONTACT FOR THIS STATEMENT: **SUNG HYUP YOU**

Title Agenda Item : **EARLY WARNING & SERVICES (PTWS)**

**Statement:**

Korea Delegation strongly agrees the activities of PTWS.

Regarding this agenda item, Korea delegation would like to inform member states that the Korea Meteorological Administration, KMA is carrying out the research project to prepare for large-scale Tsunami from the Pacific Ocean. In this regard, the KMA is developing the prediction system of Tsunami when earthquakes occur in the Pacific Ocean, which uses the latest unstructure grid model such as FVCOM and will be completed at the end of the 2016.

So, Korea would like to suggest that each country under the influence of Tsunami share the experiences regarding the establishment and operation of the Tsunami warning system to effectively response to Tsunami. If it is needed, Korea will provide other countries affected by Tsunami in the Pacific ocean with outcomes from our Tsunami prediction system.





**INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION**  
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**Twenty-eighth Session of the Assembly**  
UNESCO, Paris, 18–25 June 2015

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Member State/Name of Delegation : **THE REPUBLIC OF KOREA**

Agenda Item : **9.1**

Date and Time of Intervention : **24 JUNE 2015, MORNING**

NAME OF DELEGATION POINT OF CONTACT FOR THIS STATEMENT: **KIM HYUN YOUNG**

Title Agenda Item : **CAPACITY DEVELOPMENT**

**Statement:**

Thank you, Mr. Chairman,

Republic of Korea would like to thank and congratulate Dr. Blivi for the comprehensive and successful report with his special efforts.

My delegation notes with satisfaction that this report identifies capacity development as the primary catalyst for IOC to achieve its current four high level objectives.

We think this strategy meet the requirement of IOC's leading role in responding to the call from the post-2015 development agenda for sustainable development of the oceans, seas and marine resources.

We would like to recommend that the secretariat make constant exertions to

assess the performance outcome of the strategy by stages, in order to compensate its weak points.

With regard to this agenda, my delegation would like to share some useful information with Member States. As you may aware and as mentioned in the IOC Chair's report, we have been implementing the Yeosu project to support developing countries in ocean science since 2011. This project is entering on its second phase for more substantial help and sustainable development by providing Ocean Science ODA(Official Development Assistance) focused on capacity development combined with equipment, technology-transfer, education and national ocean policy.

Thank you.



**INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION**  
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**Twenty-eighth Session of the Assembly**  
UNESCO, Paris, 18–25 June 2015

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Member State/Name of Delegation : **THE REPUBLIC OF KOREA**

Agenda Item : **10.3**

Date and Time of Intervention : **23 JUNE 2015, AFTERNOON**

NAME OF DELEGATION POINT OF CONTACT FOR THIS STATEMENT: **CHUNG JAE KWAN**

Title Agenda Item : **INTERNATIONAL POPLAR PARTNERSHIP INITIATIVE**

**Statement:**

Recently many countries are considering that the polar is critical to the environment of the earth and also is getting more important for the world economy.

Thus, we know that many countries including Korea established long term strategic plans for polar region which includes the specific plan to cooperate with other countries and develop their infrastructures.

Korea is also making strategic plan every 5 year and it includes broad co-operation with other countries and international organizations.

In this regard, IPPI is going to be more useful to countries, which are focusing on developing their cooperation plans to deal with polar issues

Having said that, in order FOR IPPI to give member states more detailed platform to cooperate internationally such as sharing the information and infrastructure, doing joint activities.

I believe that there should be more effective, practical and centralized ways for member states ON IPPI.

If we implement IPPI in the above mentioned way (direction), many countries will benefit from IPPI in making their plans and achieving their goals.

FOR THIS, Korea will support and willingly join the efforts to make frame work and implementation plan.

## 5. IOC 집행이사회 선거결과





## Results of the Elections for Officers and Seats at the IOC Executive Council

### 28<sup>th</sup> IOC Assembly (15– 25 June 2015)

#### Chair (by acclamation)

Dr Peter Haugan (Norway) Group I

#### Vice Chairs (by acclamation)

Mr Stephen Peter Hall (UK) Group I

Dr Alexander Postnov (Russian Federation) Group II

Mr Ariel Hernan Troisi (Argentina) Group III

Dr Somkiat Khokiattiwong (Thailand) Group IV

Dr Ashley Johnson (South Africa) Group V

#### Seats on the Executive Council

Electoral Group I (after a ballot):

Belgium, Canada, Denmark, France, Germany,  
Portugal, Turkey, USA

Electoral Group II (by acclamation):

Poland, Ukraine

Electoral Group III (by acclamation):

Brazil, Chile, Colombia, Cuba, Ecuador, Grenada,  
Mexico, Peru

Electoral Group IV (by acclamation):

Australia, Bangladesh, China, India, Japan, Pakistan,  
Philippines, Republic of Korea

Electoral Group V (after a ballot):

Cote d'Ivoire, Egypt, Kenya, Morocco, Senegal,  
Tanzania, Togo, Tunisia





## 6. 2014년 IOC 예산 집행보고 및 2015년 예산(안)







**INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION**  
(of UNESCO)

**Twenty-eighth Session of the Assembly**  
UNESCO, Paris, 18–25 June 2015

Item 3.2 of the Provisional Agenda

**REPORT ON BUDGET EXECUTION (2014)**

Summary

The report provides a general overview with regard to the implementation of the 2014 IOC budget as at 31 December 2014, including an overview of the [IOC staffing situation](#).

For the IOC Special Account, the [statement](#) of income and expenditure and changes in reserves and fund balances for the period 1 January to 31 December 2014 prepared by the Bureau of Financial Management is included.

Proposed decision: This document is part of the report of the Executive Secretary to the Assembly. It will be further examined by the statutory open-ended Financial Committee and the decision reflected in the Draft Resolution that the Financial Committee will submit for adoption by the Assembly in accordance with paragraph 15 of the guidelines for the preparation and consideration of draft resolutions (IOC/INF-1315).

**This report covers three types of funding provided to the IOC budget:<sup>1</sup>**

- A.** Regular Programme allocation (UNESCO budget – 37 C/5 for 2014–2015 and Expenditure Plan) + Additional appropriations (voluntary contributions intended to directly reinforce an existing budget line)
- B.** Voluntary (Extrabudgetary) Contributions to the IOC Special Account:
  - B1.** Programme Activities (191-series accounts)
  - B2.** Earmarked Activities (193-series accounts)
- C.** Voluntary (Extrabudgetary) Contributions for specific projects

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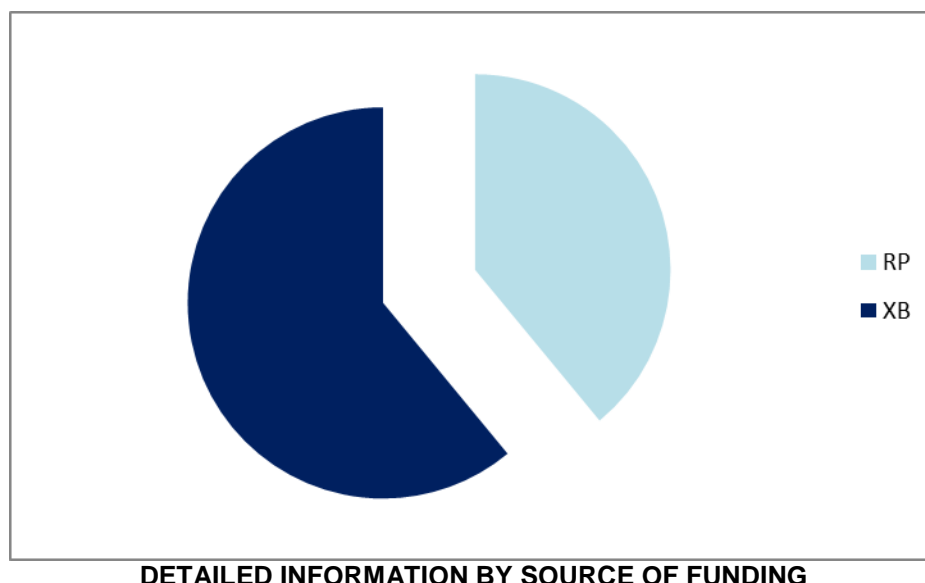
<sup>1</sup> All figures in this report were reviewed by the UNESCO Bureau of Financial Management, with the exception of those in [Table 9: 'Direct Contributions to Ostend and Perth Offices in 2014'](#).

## IMPLEMENTATION OF THE IOC BUDGET IN 2014

**Table 1.** Consolidated Report on 2014 Expenditure by Expected Result and by Function as at 31 December 2014: all sources of funding (in US dollars=)

Main Line of Action 3: Promoting knowledge and capacity for protecting and sustainably managing the ocean and coasts	Regular Budget	Special Account	Funds-in-Trust	TOTAL
<b>ER 4 - Scientific understanding of ocean and coastal processes bolstered and used by Member States to improve the management of the human relationship with the ocean</b>				
Function A: Foster ocean research to strengthen knowledge of ocean and coastal processes and human impacts upon them	73 588,66	101 906,10	251 571,36	427 066,12
Function B: Maintain, strengthen and integrate global ocean observing, data and information systems	172 259,48	22 014,01	631 127,30	825 400,79
<b>Total ER 4</b>	<b>245 848,14</b>	<b>123 920,11</b>	<b>882 698,66</b>	<b>1 252 466,91</b>
<b>ER 5 - Risks and impacts of ocean-related hazards reduced, climate change adaptation and mitigation measures taken, and policies for healthy ocean ecosystems developed and implemented by Member States</b>				
Function C: Develop early warning systems and preparedness to mitigate the risks of tsunamis and ocean-related hazards	159 017,38	760 461,35	1 441 458,32	2 360 937,05
Function D: Support assessment and information to improve the science-policy interface	53 384,65	23 870,08	1 354 624,54	1 431 879,27
<b>Total ER 5</b>	<b>212 402,03</b>	<b>784 331,43</b>	<b>2 796 082,86</b>	<b>3 792 816,32</b>
<b>ER 6 - Member States' institutional capacities reinforced to protect and sustainably manage ocean and coastal resources</b>				
Function E: Enhance ocean governance through a shared knowledge base and improved regional cooperation	183 533,38	162 788,73	453 898,17	800 220,28
Function F: Develop the institutional capacity in all of the functions above, as a cross-cutting function	91 774,74	93 610,03	1 091 803,66	1 277 188,43
<b>Total ER 6</b>	<b>275 308,12</b>	<b>256 398,76</b>	<b>1 545 701,83</b>	<b>2 077 408,71</b>
<b>SUB-TOTAL FOR 3 EXPECTED RESULTS</b>	<b>733 558,29</b>	<b>1 164 650,30</b>	<b>5 224 483,35</b>	<b>7 122 691,94</b>
IOC contribution to United Nations Development Assistance Framework (UNDAF)	0,00			0,00
IOC operating costs	23 026,23			23 026,23
Contribution to UNESCO Common Charges	90 499,00			90 499,00
<b>STAFF (supporting more than one ER)</b>	<b>3 205 366,13</b>	137 279,79		3 342 645,92
Special Account unliquidated obligations 1 January 2014		-190 124,48		
<b>TOTAL</b>	<b>4 052 449,65</b>	<b>1 111 805,61</b>	<b>5 224 483,35</b>	<b>7 122 691,94</b>

**Chart 1.** 2014 Expenditure by source (Regular Programme vs Extrabudgetary) – \$ 7,122,691.94



**DETAILED INFORMATION BY SOURCE OF FUNDING**

### **A. REGULAR PROGRAMME ALLOCATION (UNESCO BUDGET – 37 C/5 FOR 2014–2015)**

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1. In the Zero Nominal Growth draft budget of \$ 653 M for the biennium 2014–2015 presented by the Director-General to UNESCO Member States, the budgetary allocation to the IOC for the biennium 2014–2015 was of \$ 12 M, which implied a nominal increase of approximately \$ 0.5 M compared to the previous biennium.
2. On this basis, the IOC Secretariat developed a budgetary proposal for consideration by the IOC Assembly at its 27<sup>th</sup> session (Paris, 26 June–5 July 2013) – document IOC-XXVII/2 Annex 4 and Addendum. The proposal was guided by a series of underlying principles and the analysis of the budgetary trends of the past years, with a view of ensuring programme continuity, while also proposing some new initiatives. The proposal provided clear and transparent information on the intergovernmental component of the programmes and its related costs, as well as on the legal commitments of the Commission, in order to allow the Governing Bodies to make informed decisions. Following the lessons learned in dealing with the financial constraints of the 2012–2013 biennium related to the suspension of the USA contributions, all efforts were made to reduce the costs of statutory meetings and operating/running costs through a number of cost-efficiency measures.
3. In accordance with the decisions by the UNESCO Governing Bodies to move towards a results-based budgeting approach, the IOC programme and budget for 2014–2015 are structured by expected results.
4. Anticipating the reduced cash flow likely to be faced by UNESCO in 2014–2015 due to the non-payment of assessed contributions by some Member States, the Secretariat also sought the Assembly's guidance on the approach to adopt in case of a severe cash shortfall. The Assembly examined documents IOC-XXVII/2 Annex 4 and Addendum and, while noting with great concern that the financial difficulties are expected to continue into 2014–2015 biennium, took positive note of the high priority given to the IOC in the priority ranking exercise conducted by the UNESCO Executive Board Working Group (June 2013) and endorsed by the 5<sup>th</sup> special session of the Executive Board (4 July 2013) in line with the Commission's status as a body with functional autonomy within UNESCO.

5. It expressed its appreciation to the IOC Executive Secretary for the comprehensive document on the proposed Draft Programme and Budget for 2014–2017, including clear links to: the Draft Medium-Term Strategy and its high level objectives; the implementation strategy through a conceptual framework of functions; the well-defined expected results and draft Complementary Additional Programme for Extra-budgetary Resources. The Assembly adopted Resolution XXVII-2, which includes in Annex 2 the guiding principles to be used by the Secretariat in further improving the proposed framework of expected results, performance indicators and benchmarks, and in defining the spending priorities for 2014–2015 in case of a budgetary reduction due to a cash flow shortfall:

6. In the ZNG \$ 507 M Expenditure Plan for 2014–2015 adopted by the General Conference of UNESCO at its 37<sup>th</sup> session, the actual 2014–2015 budgetary allocation to the IOC was reduced to \$ 8.6 M, or 72% of the fully-funded UNESCO Programme and Budget, 2014–2015 (37 C/5).

7. This decision was brought to the attention of the IOC Member States at the 47<sup>th</sup> session of the IOC Executive Council (Paris, 1–4 July 2014), in document IOC/EC-XLVII/2 Annex 3 Rev., which also provided information on the Secretariat restructuring as well as the detailed analysis of the impact of this budgetary reduction on programme delivery under each expected result and function.

8. In its Resolution EC-XLVII.2 the Executive Council expressed '*great concern for the impact of the financial difficulties of UNESCO on the delivery of the IOC programmes, with the reduction of the IOC budget from \$ 12,026,200 in the approved Programme and Budget for 2014–2015 (37 C/5) to \$ 8,643,600 under the \$ 507 M expenditure plan for 2014–2015 (or 72% of the 37 C/5 approved)*'. It also expressed '*great dissatisfaction with the fact that the budgetary allocation to the IOC for the biennium 2014–2015 at the level of 72% of the 37 C/5 approved is not consistent with the recommendations of the 5th special session of UNESCO Executive Board (Paris, 4 July 2013) to allocate between 100% and 80% to high priority Expected Results, like those of the IOC*'.

9. The Executive Council recognized '*the efforts of the IOC Executive Secretary to maintain programme continuity under these challenging circumstances and the difficulty to fully implement the guiding principles adopted by the IOC Assembly at its 27th session (Resolution XXVII-2(C), Annex 2), given that the Assembly provided its recommendation on a scenario with an allocation of 86% (and not 72%) of the 37 C/5 approved budget*.' It welcomed the programmatic choices of the IOC Executive Secretary and endorsed the Programme and Budget for 2014–2017 and Workplans for 2014–2015 contained in document IOC/EC-XLVII/2 Annex 3 Rev. as a measure to ensure programme continuity at essential level and consistent with the priorities of the Medium-Term Strategy for 2014–2021 (IOC/INF-1314).

**Table 2.** Regular Programme Allocation 2014–2015 (37 C/5) (in US dollars=)

Main Line of Action 3: Promoting knowledge and capacity for protecting and sustainably managing the ocean and coasts	Implementing Unit	Draft 37 C/5 as presented to Assembly in 2013	37 C/5 expenditure plan as presented to EC in 2014*
		\$653M (\$12M for IOC)	\$507M (\$8.7M for IOC)
<b>ER 4 - Scientific understanding of ocean and coastal processes bolstered and used by Member States to improve the management of the human relationship with the ocean</b>			
<b>Function A: Foster ocean research to strengthen knowledge of ocean and coastal processes and human impacts upon them</b>		<b>315 800</b>	<b>162 500</b>
WCRP	IOC	155 000	60 000
Ocean Carbon Sources & Sinks	IOC	90 800	55 250
Impact of CC on ocean & coastal ecosystems	IOC	70 000	47 250
<b>Function B: Maintain, strengthen and integrate global ocean observing, data and information systems</b>		<b>841 000</b>	<b>400 171</b>
GOOS Work Plan	IOC		200 632

Main Line of Action 3: Promoting knowledge and capacity for protecting and sustainably managing the ocean and coasts	Implementing Unit	Draft 37 C/5 as presented to Assembly in 2013	37 C/5 expenditure plan as presented to EC in 2014*
		\$653M (\$12M for IOC)	\$507M (\$8.7M for IOC)
GOOS Projects through IOCAFRICA	NAI	431 000	30 000
GOOS Pacific Ocean Projects through PPO	JAK	80 000	20 000
GOOS Indian Ocean Projects through PPO	NAI	80 000	20 000
JCOMM Observations	IOC	100 000	64 539
IODE & OBIS core systems	IOC	150 000	65 000
<b>Total ER 4 DIRECT COSTS</b>		<b>1 156 800</b>	<b>562 671</b>
OFFICE: IOC operating costs	IOC		11 433
<b>Total ER 4</b>		<b>1 156 800</b>	<b>574 104</b>
<b>ER 5 - Risks and impacts of ocean-related hazards reduced, climate change adaptation and mitigation measures taken, and policies for healthy ocean ecosystems developed and implemented by Member States</b>			
<b>Function C: Develop early warning systems and preparedness to mitigate the risks of tsunamis and ocean-related hazards</b>		<b>636 200</b>	<b>376 090</b>
Promote integrated and sustained WS	IOC		64 000
Promote integrated and sustained WS	RAB	160 000	30 000
Educating communities at risk	IOC		45 700
Educating communities at risk	API	130 000	30 000
Contribute to develop MS capacities for assessment	IOC		45 700
Contribute to develop MS capacities for assessment	JAK	130 000	30 000
Research & monitoring on algal events	IOC	66 200	50 690
JCOMM Services	IOC	100 000	50 000
IODE & OBIS products and services	IOC	50 000	30 000
<b>Function D: Support assessment and information to improve the science-policy interface</b>		<b>280 000</b>	<b>135 000</b>
WOA	IOC	100 000	40 000
Science for reducing nutrient enrichment	IOC	90 000	45 000
Climate change adaptation in coastal zones	NAI		30 000
Climate change adaptation in coastal zones	IOC	90 000	20 000
<b>SUB-TOTAL ER 5 DIRECT COSTS</b>		<b>916 200</b>	<b>511 090</b>
OFFICE: IOC operating costs	IOC		9 875
<b>Total ER 5</b>		<b>916 200</b>	<b>520 965</b>
<b>ER 6 - Member States' institutional capacities reinforced to protect and sustainably manage ocean and coastal resources</b>			
<b>Function E: Enhance ocean governance through a shared knowledge base and improved regional cooperation</b>		<b>868 320</b>	<b>385 717</b>
IOC Governing bodies	IOC	300 000	239 717
IOCARIBE	KNG	60 000	30 000
IOCAFRICA	NAI	60 000	30 000
WESTPAC	BGK	60 000	30 000
UN partnerships, policy and outreach	IOC	188 320	
ICAM & Marine Spatial Planning	IOC	100 000	56 000
<i>Oceans Compact (not approved by Assembly)</i>	IOC	100 000	
<b>Function F: Develop the institutional capacity in all of the functions above, as a cross-cutting function</b>		<b>600 000</b>	<b>180 143</b>
CD & Transfer of Marine Technology (TMT)	IOC	80 000	20 000
CD IOCAFRICA	NAI	100 000	25 000
CD IOCARIBE	KNG	100 000	25 000
CD WESTPAC	BGK	100 000	25 000
<i>Global Ocean Science Report (XB only)</i>	IOC	100 000	
IODE and OBIS training and education	IOC	120 000	85 143
<b>SUB-TOTAL ER 6 DIRECT COSTS</b>		<b>1 468 320</b>	<b>565 860</b>



Main Line of Action 3: Promoting knowledge and capacity for protecting and sustainably managing the ocean and coasts	Implementing Unit	Draft 37 C/5 as presented to Assembly in 2013	37 C/5 expenditure plan as presented to EC in 2014*
		\$653M (\$12M for IOC)	\$507M (\$8.7M for IOC)
UNDAF 2% (of which 1% to revert to IOC)	UNR		31 500
OFFICE: IOC operating costs	IOC		14 512
<b>Total ER 6</b>		<b>1 468 320</b>	<b>611 872</b>
<b>TOTAL IOC PROGRAMME</b>		<b>3 541 320</b>	<b>1 706 941</b>
IOC operating costs and UNDAF		142 680	
Contribution to UNESCO Common Charges		171 200	192 980
<b>TOTAL STAFF</b>		<b>8 171 000</b>	<b>6 791 680</b>
<b>TOTAL</b>		<b>12 026 200</b>	<b>8 691 601</b>

\*Including US\$48K of additional appropriations

**Table 3.** Additional Appropriations to Regular Budget 2014-2015 (37 C/5) as at 31 Dec. 2014 (in US dollars)

Expected Result	Function	Activity	Donor	Amount
4	B	JCOMM Observations	IFREMER	4 539
5	C	Research & monitoring on algal events	Monaco	20 690
6	E	IOC Governing Bodies	Monaco	2 717
6	F	IODE & OBIS training and education	IFREMER	20 055
<b>TOTAL</b>				<b>48 001</b>

**Table 4.** 2014 Expenditure under Regular Programme (in US dollars)

Main Line of Action 3: Promoting knowledge and capacity for protecting and sustainably managing the ocean and coasts	Impl. Unit	2014 Allotment*	2014 Disbursements	Unliquidated Obligations	Total	Exp. Rate
<b>ER 4 - Scientific understanding of ocean and coastal processes bolstered and used by Member States to improve the management of the human relationship with the ocean</b>						
<b>Function A: Foster ocean research to strengthen knowledge of ocean and coastal processes and human impacts upon them</b>		<b>86 250,00</b>	<b>62 089,10</b>	<b>11 499,56</b>	<b>73 588,66</b>	<b>85,3%</b>
WCRP	IOC	30 000,00	29 852,71	0,00	29 852,71	99,5%
Ocean Carbon Sources & Sinks	IOC	29 000,00	23 168,65	1 499,56	24 668,21	85,1%
Impact of CC on ocean & coastal ecosystems	IOC	27 250,00	9 067,74	10 000,00	19 067,74	70,0%
<b>Function B: Maintain, strengthen and integrate global ocean observing, data and information systems</b>		<b>212 671,00</b>	<b>159 893,58</b>	<b>12 365,90</b>	<b>172 259,48</b>	<b>81,0%</b>
GOOS Work Plan	IOC	100 632,00	82 056,47	1 499,56	83 556,03	83,0%
GOOS Projects through IOCAFRICA	NAI	15 000,00	7 165,89	0,00	7 165,89	47,8%
GOOS Pacific Ocean Projects through Perth Programme Office (PPO)	JAK	20 000,00	17 095,05	2 000,00	19 095,05	95,5%
GOOS Indian Ocean Projects through PPO	NAI	10 000,00	0,00	0,00	0,00	0,0%
JCOMM Observations	IOC	34 539,00	27 398,87	3 964,42	31 363,29	90,8%
IODE & OBIS core systems	IOC	32 500,00	26 177,30	4 901,92	31 079,22	95,6%
<b>Total ER 4</b>		<b>298 921,00</b>	<b>221 982,68</b>	<b>23 865,46</b>	<b>245 848,14</b>	<b>82,2%</b>
<b>ER 5 - Risks and impacts of ocean-related hazards reduced, climate change adaptation and mitigation measures taken, and policies for healthy ocean ecosystems developed and implemented by Member States</b>						
<b>Function C: Develop early warning systems and preparedness to mitigate the risks of tsunamis and ocean-related hazards</b>		<b>209 290,00</b>	<b>111 050,67</b>	<b>47 966,71</b>	<b>159 017,38</b>	<b>76,0%</b>
Promote integrated and sustained WS	IOC	32 000,00	14 747,52	0,00	14 747,52	46,1%
Promote integrated and sustained WS	RAB	30 000,00	17 477,40	8 996,44	26 473,84	88,2%

<b>Main Line of Action 3: Promoting knowledge and capacity for protecting and sustainably managing the ocean and coasts</b>	<b>Impl. Unit</b>	<b>2014 Allotment*</b>	<b>2014 Disbursements</b>	<b>Unliquidated Obligations</b>	<b>Total</b>	<b>Exp, Rate</b>
Educating communities at risk	IOC	30 600,00	18 754,31	10 000,00	28 754,31	94,0%
Educating communities at risk	API	15 000,00	12 121,62	0,00	12 121,62	80,8%
Contribute to develop MS capacities for assessment	IOC	23 000,00	20 155,66	0,11	20 155,77	87,6%
Contribute to develop MS capacities for assessment	JAK	3 000,00	2 550,97	0,00	2 550,97	85,0%
Research & monitoring on algal events	IOC	35 690,00	14,20	15 045,80	15 060,00	42,2%
JCOMM Services	IOC	25 000,00	22 521,69	1 632,36	24 154,05	96,6%
IODE & OBIS products and services	IOC	15 000,00	2 707,30	12 292,00	14 999,30	100,0%
<b>Function D: Support assessment and information to improve the science-policy interface</b>		<b>82 500,00</b>	<b>41 232,90</b>	<b>12 151,75</b>	<b>53 384,65</b>	<b>64,7%</b>
WOA	IOC	30 000,00	15 056,48	3 675,00	18 731,48	62,4%
Science for reducing nutrient enrichment	IOC	22 500,00	14 576,00	6 732,46	21 308,46	94,7%
Climate change adaptation in coastal zones	NAI	15 000,00	10 167,71	1 715,00	11 882,71	79,2%
Climate change adaptation in coastal zones	IOC	15 000,00	1 432,71	29,29	1 462,00	9,7%
<b>Total ER 5</b>		<b>291 790,00</b>	<b>152 283,57</b>	<b>60 118,46</b>	<b>212 402,03</b>	<b>72,8%</b>
<b>ER 6 - Member States' institutional capacities reinforced to protect and sustainably manage ocean and coastal resources</b>						
<b>Function E: Enhance ocean governance through a shared knowledge base and improved regional cooperation</b>		<b>199 717,00</b>	<b>177 988,01</b>	<b>5 545,37</b>	<b>183 533,38</b>	<b>91,9%</b>
IOC Governing bodies	IOC	109 717,00	108 798,99	0,00	108 798,99	99,2%
IOCARIBE	KNG	15 000,00	12 757,98	2 212,06	14 970,04	99,8%
IOCAFRICA	NAI	15 000,00	9 709,68	1 057,21	10 766,89	71,8%
WESTPAC	BGK	25 000,00	21 783,24	0,00	21 783,24	87,1%
ICAM & Marine Spatial Planning (MSP)	IOC	35 000,00	24 938,12	2 276,10	27 214,22	77,8%
<b>Function F: Develop the institutional capacity in all of the functions above, as a cross-cutting function</b>		<b>97 589,00</b>	<b>61 072,57</b>	<b>30 702,17</b>	<b>91 774,74</b>	<b>94,0%</b>
CD & Transfer of Marine Technology (TMT)	IOC	10 000,00	3 292,67	3 908,17	7 200,84	72,0%
CD IOCAFRICA	NAI	15 000,00	14 696,94	0,00	14 696,94	98,0%
CD IOCARIBE	KNG	15 000,00	13 244,67	0,00	13 244,67	88,3%
CD WESTPAC	BGK	5 000,00	4 080,13	0,00	4 080,13	81,6%
IODE and OBIS training and education	IOC	52 589,00	25 758,16	26 794,00	52 552,16	99,9%
<b>Total ER 6</b>		<b>297 306,00</b>	<b>239 060,58</b>	<b>36 247,54</b>	<b>275 308,12</b>	<b>92,6%</b>
IOC contribution to UNDAF		15 750,00	0,00	0,00	0,00	0,0%
IOC operating costs		23 499,00	22 494,68	531,55	23 026,23	98,0%
Contribution to UNESCO Common Charges		90 499,00	90 499,00	0,00	90 499,00	100,0%
<b>TOTAL PROGRAMME</b>		<b>1 017 765,00</b>	<b>726 320,51</b>	<b>120 763,01</b>	<b>847 083,52</b>	<b>83,2%</b>
<b>IOC STAFF</b>		<b>3 396 250,00</b>	<b>3 199 439,47</b>	<b>5 926,66</b>	<b>3 205 366,13</b>	<b>94,4%</b>
<b>TOTAL</b>		<b>4 414 015,00</b>	<b>3 925 759,98</b>	<b>126 689,67</b>	<b>4 052 449,65</b>	<b>91,8%</b>

\* includes US\$48K of additional appropriations

## B. VOLUNTARY (EXTRA-BUDGETARY) CONTRIBUTIONS TO THE IOC SPECIAL ACCOUNT

### INCOME

**Table 5.** Schedule of income to the IOC Special Account for the period 1 January 2014–31 December 2014 (in US dollars)

<b>A. PROGRAMME ACTIVITIES (191IOC9000)</b>		
<b>Funds received:</b>		
<u><b>Governments:</b></u>		
Australia	128 941,96	
Canada	35 573,15	
China	300 000,00	
Colombia	26 865,00	
Korea Rep. of	11 000,00	
New Zealand	8 571,00	
Norway	311 337,35	
United Kingdom	10 000,00	832 288,46
<u><b>Others:</b></u>		
Cambridge University	80,93	80,93
Interest		10 205,00
<b>TOTAL A</b>		<b>842 574,39</b>
<b>B. EARMARKED ACTIVITIES</b>		
<u>Argo Information Centre (193AIC2000)</u>		
Australia	13 570,50	
Japan	10 000,00	23 570,50
-		
<u>Tsunami and Other Coastal Hazards Warning System for the Caribbean &amp; Adjacent Regions (193TSU2001)</u>		
Monaco		26 738,00
<u>Secretariat for the Indian Ocean Tsunami Monitoring and Warning System (193ICG2000)</u>		
Australia		374 934,00
<b>TOTAL B</b>		<b>425 242,50</b>
<b>TOTAL (A + B)</b>		<b>1 267 816,89</b>
<i>Financial Report issued by the Bureau of Financial Management</i>		
<i>The total income and expenditure are in accordance with UNESCO's financial records</i>		

## EXPENDITURE

**Table 6:** Schedule of disbursements and unliquidated obligations for the period 1 January 2014 to 31 December 2014 (in US dollars)

<b>A. PROGRAMME ACTIVITIES</b>			
	<b>2014 Disbursements</b>	<b>Unliquidated Obligations</b>	<b>Total</b>
<b>ADDRESSING THE IMPACT OF CLIMATE CHANGE (191GOS2000)</b>			
GLOBAL OCEAN OBSERVING SYSTEM	96 199,30	5 706,80	101 906,10
MARINE OBSERVATIONS AND SERVICES	13 906,17	0,00	13 906,17
OOPC COORDINATOR	0,00	0,00	0,00
IOCCP COORDINATOR (S)	0,00	0,00	0,00
<b>Sub-total</b>	<b>110 105,47</b>	<b>5 706,80</b>	<b>115 812,27</b>
<b>SAFEGUARDING MARINE ECOSYSTEM HEALTH AND INTEGRATED MANAGEMENT (191SCI2000)</b>			
GRAMÉ	17 820,08	6 050,00	23 870,08
COASTAL RESEARCH, MONITORING & MODELLING	0,00	0,00	0,00
TOOLS & METHODOLOGIES FOR ICAM	3 577,86	5 201,56	8 779,42
<b>Sub-total</b>	<b>21 397,94</b>	<b>11 251,56</b>	<b>32 649,50</b>
<b>CAPACITY-BUILDING, DATA &amp; INFORMATION SERVICES &amp; LEGAL PROCEDURES (191CAP2000)</b>			
CAPACITY DEVELOPMENT	9 639,02	0,00	9 639,02
IODE	21 975,70	0,00	21 975,70
UNCLOS/ABELOS	0,00	0,00	0,00
OBIS	-41 413,59	5 204,65	-36 208,94
<b>Sub-total</b>	<b>-9 798,87</b>	<b>5 204,65</b>	<b>-4 594,22</b>
<b>GENERAL POLICY AND COORDINATION (191POL2000)</b>			
IOC GOVERNING BODIES MEETINGS	2 864,86	0,00	2 864,86
IOCARIBE	0,00	0,00	0,00
WESTPAC	90 806,59	7 397,66	98 204,25
GENERAL OPERATING & COORDINATION COSTS	82 058,30	38 425,33	120 483,63
OCEAN GOVERNANCE & POLICY	23 006,71	7 654,11	30 660,82
RESERVE	0,00	0,00	0,00
<b>Sub-total</b>	<b>198 736,46</b>	<b>53 477,10</b>	<b>252 213,56</b>
<b>TSUNAMI AND OTHER MARINE HAZARDS (191SER2000)</b>			
ICG INDIAN OCEAN	0,00	0,00	0,00
ICG CARIBBEAN	0,00	0,00	0,00
ICG PACIFIC	26 520,88	0,00	26 520,88
ICG MEDITERRANEAN	0,00	0,00	0,00
TOWS-WG	15 390,26	265,25	15 655,51
ITIC	0,00	0,00	0,00
OCEAN MAPPING	0,00	0,00	0,00
COASTAL HAZARDS/ICAM	0,00	0,00	0,00
<b>Sub-total</b>	<b>41 911,14</b>	<b>265,25</b>	<b>42 176,39</b>
<b>IOC TEMPORARY PERSONNEL (191PER2000)</b>			
<b>IOC TEMPORARY PERSONNEL</b>	<b>137 279,79</b>	<b>0,00</b>	<b>137 279,79</b>
<b>Sub-total</b>	<b>499 631,93</b>	<b>75 905,36</b>	<b>575 537,29</b>
<b>Unliquidated Obligations 1 January 2014</b>		<b>-60 761,50</b>	<b>-60 761,50</b>
<b>TOTAL A</b>	<b>499 631,93</b>	<b>15 143,86</b>	<b>514 775,79</b>
<b>B. EARMARKED ACTIVITIES (193-series)</b>			
ARGO INFORMATION CENTRE (193AIC2000)	21 997,47	16,54	22 014,01
DBCP/SOOP TECHNICAL COORDINATOR (193DBC2000)	0,00	0,00	0,00
INDIAN OCEAN TWS (193TSU2000)	265 819,97	13 450,08	279 270,05
COASTAL HAZARDS FOR THE CARIBBEAN (193TSU2001)	55 141,50	5 500,51	60 642,01
SECRETARIAT FOR THE INDIAN OCEAN TWS (193ICG2000)	364 023,26	443,47	364 466,73
<b>Sub-total</b>	<b>706 982,20</b>	<b>19 410,60</b>	<b>726 392,80</b>
<b>Unliquidated Obligations 1 January 2014</b>		<b>-129 362,98</b>	<b>-129 362,98</b>
<b>TOTAL B</b>	<b>706 982,20</b>	<b>-109 952,38</b>	<b>597 029,82</b>
<b>TOTAL (A + B)</b>	<b>1 206 614,13</b>	<b>-94 808,52</b>	<b>1 111 805,61</b>
<i>Financial Report issued by the Bureau of Financial Management</i>			
<i>The total income and expenditure are in accordance with UNESCO's financial records</i>			

## C. VOLUNTARY (EXTRA-BUDGETARY) CONTRIBUTIONS FOR SPECIFIC PROJECTS

### INCOME

**Table 7.** 2014 Income under Extra-budgetary projects (in US dollars)

Budget code	Project title (short)	Donor	Total Revenue (Return of funds to Donor)
<b>ER 4 - Scientific understanding of ocean and coastal processes bolstered and used by Member States to improve the management of the human relationship with the ocean</b>			
<b>Function A: Foster ocean research to strengthen knowledge of ocean and coastal processes and human impacts upon them</b>			
510GLO2003	International Seminar for Climate Change	Denmark	0,00
513RLA2020	Conservation model for marine ecosystems	Belgium/Flanders	25 000,00
514RAF2002	Enhancing oceanography capacity in Western Africa	Spain	0,00
526GLO2002	Ocean Carbon Sources and Sinks	Korea, Republic of	0,00
526GLO2003	Ocean Carbon Sources and Sinks 2	Korea, Republic of	77 998,64
<b>Sub-total A</b>			<b>102 998,64</b>
<b>Function B: Maintain, strengthen and integrate global ocean observing, data and information systems</b>			
549GLO2005	GEOWOW	European Union	0,00
513RAF2020	Review & consolidation of ODINAFRICA products & services	Belgium/Flanders	35 257,00
<b>Sub-total B</b>			<b>35 257,00</b>
<b>Total ER 4</b>			<b>138 255,64</b>
<b>ER 5 - Risks and impacts of ocean-related hazards reduced, climate change adaptation and mitigation measures taken, and policies for healthy ocean ecosystems developed and implemented by Member States</b>			
<b>Function C: Develop early warning systems and preparedness to mitigate the risks of tsunamis and ocean-related hazards</b>			
216DOM2000	National institutions prepared for tsunami warning	UNDP	0,00
230RAS2003	Enhancing tsunami risk assessment	UNESCAP	96 189,40
230RAS2004	History of tsunami events in Makran coastal region	UNESCAP	48 662,00
255GLO2000	JCOMM-VI	WMO	-887,05
549HAI2000	Strengthening Haitian capacities for tsunami warning	European Union	125 113,78
549HAI2001	Consolidating Haitian capacities for tsunami warning	European Union	0,00
549INT2001	NEAMTIC	European Union	46 094,35
549INT2003	Tsunami Exercise NEAMWave-14	European Union	158 596,98
580GLO2000	Secondment of an official from SOA	China	141 065,00
920OMA2000	Technical expert advice to establish a national TWS	Oman	0,00
943INS2000	Building model for disaster resilient city in Indonesia	Indonesia	495 149,00
<b>Sub-total C</b>			<b>1 109 983,46</b>
<b>Function D: Support assessment and information to improve the science-policy interface</b>			
213GLO2010	Global foundations for reducing nutrient enrichment	UNEP	243 000,00
213GLO2012	Transboundary Water Assessment Programme	UNEP	991 360,13
513GLO2034	DIPS-4 Ocean Assessments	Belgium/Flanders	149 600,00
520GLO2002	Contribution to the UN World Ocean Assessment	Fance	0,00
<b>Sub-total D</b>			<b>1 383 960,13</b>
<b>Total ER 5</b>			<b>2 493 943,59</b>

Budget code	Project title (short)	Donor	Total Revenue (Return of funds to Donor)
<b>ER 6 - Member States' institutional capacities reinforced to protect and sustainably manage ocean and coastal resources</b>			
<b>Function E: Enhance ocean governance through a shared knowledge base and improved regional cooperation</b>			
513GLO2029	IOC Guidelines for local managers in coastal management	Belgium/Flanders	0,00
513RLA2013	SPINCAM II	Belgium/Flanders	379 128,80
513RLA2014	Secondment of staff by the Flemish Government	Belgium/Flanders	0,00
513RLA2015	Improving technical skills & Regional Coastal Atlas	Belgium/Flanders	6 364,00
546GLO2003	Secondment of a staff member of JAMSTEC	Japan	106 300,00
549INT2002	People for Ecosystem-based governance (PEGASO)	European Union	16 550,11
570GLO2009	A step-by-step guide to monitoring and evaluation	Moore Foundation	0,00
GLO0085821	Strengthening Global Governance of LMEs	UNDP	0,00
<b>Sub-total E</b>			<b>508 342,91</b>
<b>Function F: Develop the institutional capacity in all of the functions above, as a cross-cutting function</b>			
216RLA2000	Support to the Caribbean LMEs (CLME)	UNOPS	0,00
216RLA2001	IMS and REMP for CLMEs	UNOPS	0,00
513GLO2016	Ocean Teacher Academy	Belgium/Flanders	0,00
513GLO2031	Ocean Teacher Global Classroom Pilot Project	Belgium/Flanders	20 000,00
513GLO2033	The OceanTeacher Global Academy (OTGA)	Belgium/Flanders	519 076,00
513RAF2013	ODINAFRICA-IV	Belgium/Flanders	0,00
513RAF2018	African Summer School	Belgium/Flanders	0,00
513RLA2006	Caribbean Marine Atlas	Belgium/Flanders	0,00
513RLA2018	Caribbean Marine Atlas Phase 2	Belgium/Flanders	199 197,00
526INT2003	IOC-Yeosu project capacity enhancement	Korea, Republic of	-80 580,82
526RAS2010	Enhance the capacity for species identification	Korea, Republic of	31 044,39
549GLO2006	i-Marine-Data-e-infrastructure initiative	European Union	39 902,41
555RAS2011	Promoting awareness of coastal marine env. change	Japan	0,00
<b>Sub-total F</b>			<b>728 638,98</b>
<b>Total ER 6</b>			<b>1 236 981,89</b>
<b>TOTAL</b>			<b>3 869 181,12</b>

## EXPENDITURE

**Table 8.** 2014 Expenditure under Extra-budgetary projects (in US dollars)

Budget code	Project title (short)	Donor	Total Expenditure
<b>ER 4 - Scientific understanding of ocean and coastal processes bolstered and used by Member States to improve the management of the human relationship with the ocean</b>			
<b>Function A: Foster ocean research to strengthen knowledge of ocean and coastal processes and human impacts upon them</b>			
510GLO2003	International Seminar for Climate Change	Denmark	3 873,88
513RLA2020	Conservation model for marine ecosystems	Belgium/Flanders	22 430,10
514RAF2002	Enhancing oceanography capacity in Western Africa	Spain	103 745,49
526GLO2002	Ocean Carbon Sources and Sinks	Korea, Republic of	64 703,49
526GLO2003	Ocean Carbon Sources and Sinks 2	Korea, Republic of	56 818,40
<b>Sub-total A</b>			<b>251 571,36</b>

Budget code	Project title (short)	Donor	Total Expenditure
<b>Function B: Maintain, strengthen and integrate global ocean observing, data and information systems</b>			
549GLO2005	GEOSS interoperability for Weather, Ocean & Water (GEOWOW)	European Union	631 127,30
513RAF2020	Review & consolidation of ODINAFRICA products & services	Belgium/Flanders	0,00
<b>Sub-total B</b>			<b>631 127,30</b>
<b>Total ER 4</b>			<b>882 698,66</b>
<b>ER 5 - Risks and impacts of ocean-related hazards reduced, climate change adaptation and mitigation measures taken, and policies for healthy ocean ecosystems developed and implemented by Member States</b>			
<b>Function C: Develop early warning systems and preparedness to mitigate the risks of tsunamis and ocean-related hazards</b>			
216DOM2000	National institutions prepared for tsunami warning	UNDP	184 229,21
230RAS2003	Enhancing tsunami risk assessment	UNESCO	171 308,62
230RAS2004	History of tsunami events in Makran coastal region	UNESCO	46 355,67
255GLO2000	JCOMM-VI	WMO	23 709,09
549HAI2000	Strengthening Haitian capacities for tsunami warning	European Union	0,00
549HAI2001	Consolidating Haitian capacities for tsunami warning	European Union	457 381,79
549INT2001	NEAMTIC	European Union	0,00
549INT2003	Tsunami Exercise NEAMWave-14	European Union	52 864,33
580GLO2000	Secondment of an official from SOA	China	71 724,91
920OMA2000	Technical expert advice to establish a national TWS	Oman	165 240,61
943INS2000	Building model for disaster resilient city in Indonesia	Indonesia	268 644,09
<b>Sub-total C</b>			<b>1 441 458,32</b>
<b>Function D: Support assessment and information to improve the science-policy interface</b>			
213GLO2010	Global foundations for reducing nutrient enrichment	UNEP	95 146,54
213GLO2012	Transboundary water assessment Programme	UNEP	1 242 957,92
513GLO2034	DIPS-4 Ocean Assessments	Belgium/Flanders	20,35
520GLO2002	Contribution to the UN World Ocean Assessment	Fance	16 499,73
<b>Sub-total D</b>			<b>1 354 624,54</b>
<b>Total ER 5</b>			<b>2 796 082,86</b>
<b>ER 6 - Member States' institutional capacities reinforced to protect and sustainably manage ocean and coastal resources</b>			
<b>Function E: Enhance ocean governance through a shared knowledge base and improved regional cooperation</b>			
513GLO2029	IOC Guidelines for local managers in coastal management	Belgium/Flanders	0,00
513RLA2013	SPINCAM II	Belgium/Flanders	3 990,75
513RLA2014	Secondment of staff by the Flemish Government	Belgium/Flanders	135 072,34
513RLA2015	Improving technical skills & Regional Coastal Atlas	Belgium/Flanders	36 944,30
546GLO2003	Secondment of a staff member of JAMSTEC	Japan	134 395,99
549INT2002	People for Ecosystem-based governance (PEGASO)	European Union	21 378,05
570GLO2009	A step-by-step guide to monitoring and evaluation	Moore Foundation	80 722,68
GLO0085821	Strengthening Global Governance of LMEs	UNDP	41 394,06
<b>Sub-total E</b>			<b>453 898,17</b>
<b>Function F: Develop the institutional capacity in all of the functions above, as a cross-cutting function</b>			
216RLA2000	Support to the Caribbean LMEs (CLME)	UNOPS	2 906,16
216RLA2001	Information Management System and Regional Ecosystem Monitoring Programme for CLMEs (IMS/REMP)	UNOPS	35,99
513GLO2016	OceanTeacher Academy	Belgium/Flanders	63 934,47
513GLO2031	OceanTeacher Global Classroom Pilot Project	Belgium/Flanders	119 620,43
513GLO2033	The OceanTeacher Global Academy	Belgium/Flanders	19 217,63

Budget code	Project title (short)	Donor	Total Expenditure
513RAF2013	ODINAFRICA-IV	Belgium/Flanders	240 535,80
513RAF2018	African Summer School	Belgium/Flanders	166 884,73
513RLA2006	Caribbean Marine Atlas	Belgium/Flanders	136 178,96
513RLA2018	Caribbean Marine Atlas Phase 2	Belgium/Flanders	41 343,76
526INT2003	IOC-Yeosu project capacity enhancement	Korea, Republic of	-3 796,80
526RAS2010	Enhance the capacity for species identification	Korea, Republic of	102 594,11
549GLO2006	i-Marine-Data-e-infrastructure initiative	European Union	111 193,26
555RAS2011	Promoting awareness of coastal marine env. change	Japan	91 155,16
<b>Sub-total F</b>			<b>1 091 803,66</b>
<b>Total ER 6</b>			<b>1 545 701,83</b>
<b>TOTAL</b>			<b>5 224 483,35</b>

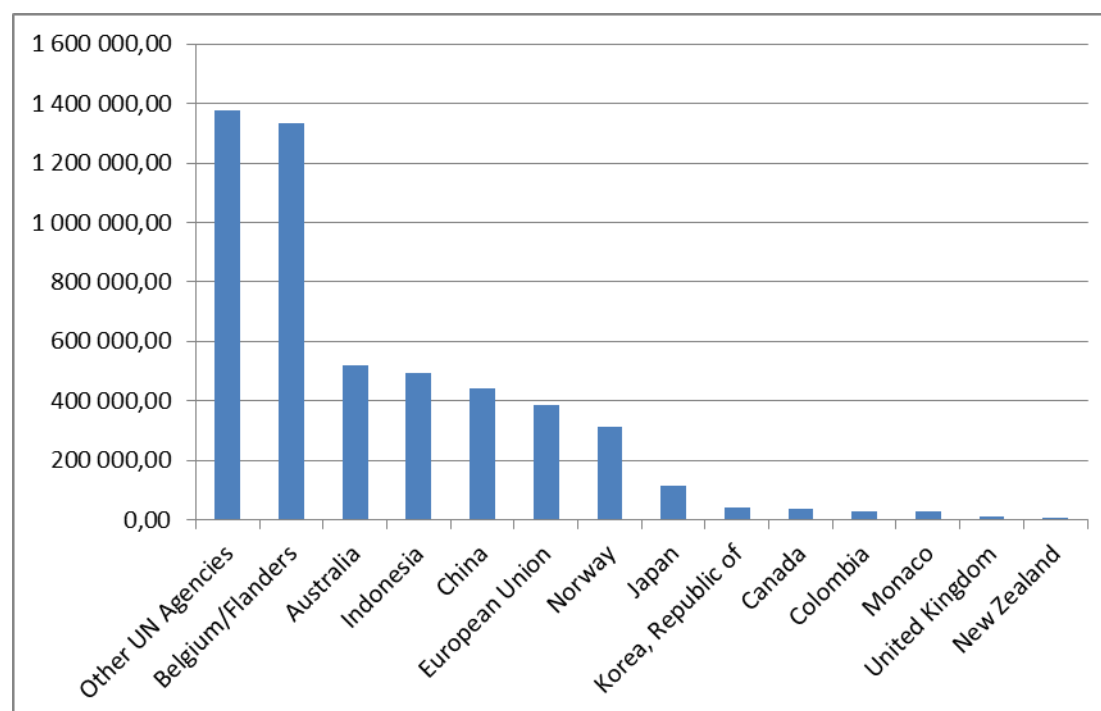
### Direct contributions to the UNESCO/IOC Offices in Ostend, Belgium and Perth, Australia

**Table 9.** Direct Contributions to Ostend & Perth Offices in 2014\*

	Amount	Currency
<b>Perth Programme Office &amp; ICG/IOTWS Secretariat, Australia</b>		
Western Australian State Government (cash support)	261 000,00	AUD
Australian Bureau of Meteorology (cash support)	25 000,00	AUD
Australian Bureau of Meteorology (in-kind support)	292 000,00	AUD
<b>Project Office for IODE, Ostend, Belgium</b>		
Vlaams Instituut voor de Zee (VLIZ - Flanders Marine Institute)	480 684,00	EUR

\* These contributions do not enter the budgetary flow of UNESCO/IOC but are managed by partner organizations (VLIZ for Ostend office, BOM for Perth Office). Amounts are provided by the donors in official correspondence to ADG/IOC

**Chart 3.** Main extra-budgetary donors – based on 2014 income to the IOC Special Account and to the Funds-in-Trust (Total of \$ 5,136,998.01)

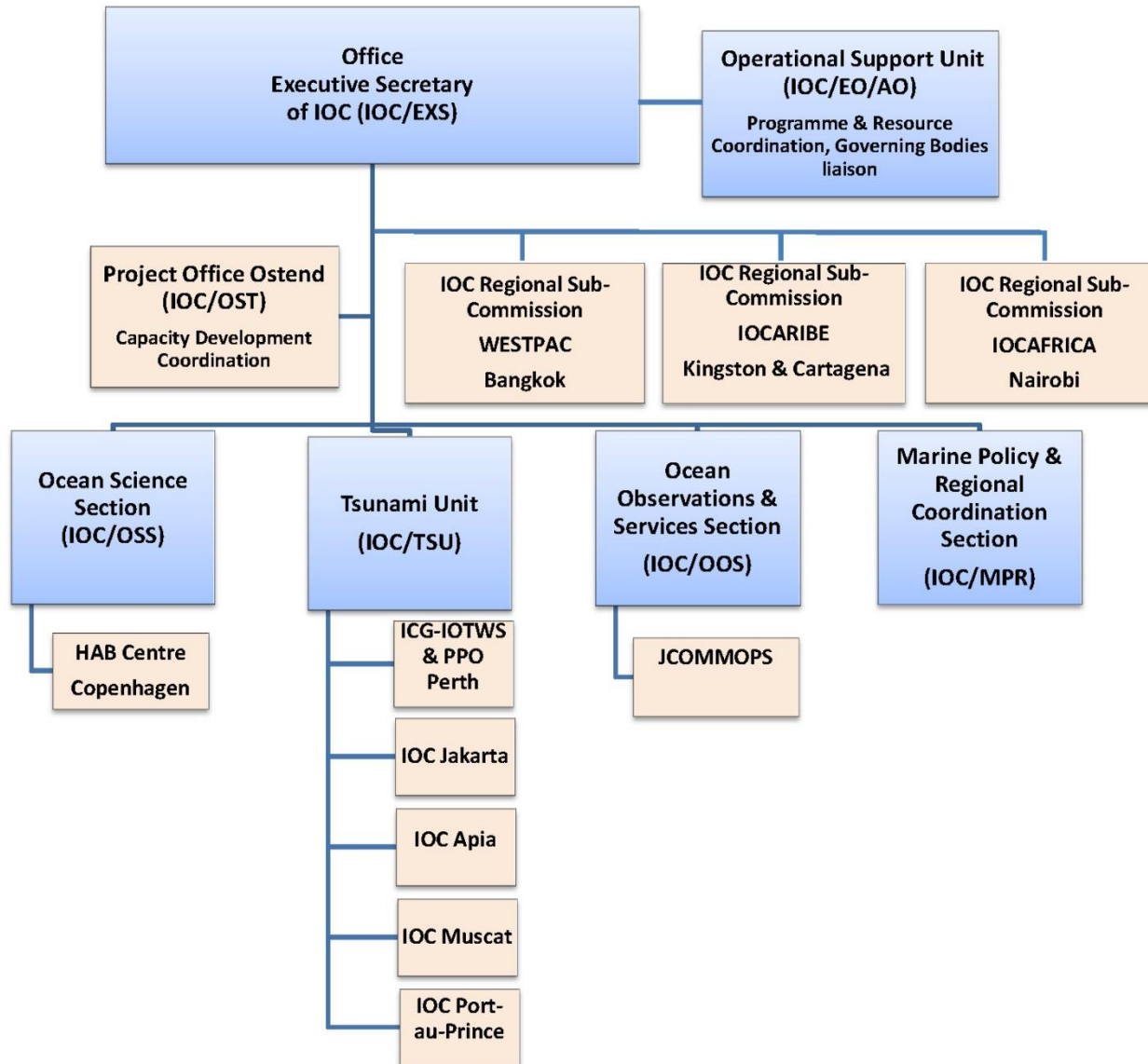




### **OVERVIEW OF THE IOC STAFFING SITUATION IN 2014**

10. The cash flow difficulties faced by the Organization in this biennium also had a considerable impact on the IOC staffing situation.
11. In addition to two professional posts (Executive Officer and JCOMM coordinator) and two general services posts (one in Ocean Observations Section and one in Ocean Science Section) abolished in 2013, two additional general services posts had to be abolished in 2014 (one in Ocean Observations Section and one in the Office of the Executive Secretary).
12. In order to ensure as least some level of sustainability for the operational programmes, the restructuring of the Secretariat was proposed by the Executive Secretary of IOC and approved by the Director-General of UNESCO. The detailed information on this restructuring was provided to the IOC Executive Council at its 47<sup>th</sup> session in document IOC/EC-XLVII/2 Annex 3 Rev. As a result of this restructuring, two new professional posts were open for recruitment from 1 January 2015 to support the priority areas of NEAMTWS/JCOMM and OBIS/OOS. The post of the Head of the IOCARIBE Secretariat could not, however, be restored to a full-time position.
13. In this context of continuous understaffing in many core areas of activities, extra-budgetary contributions from Member States are of particular importance, including through secondments and non-reimbursable loans.
14. The IOC organizational chart below shows the revised Secretariat structure, following the restructuring.

**IOC ORGANIZATIONAL CHART** *(English only)*



**STATEMENT OF INCOME AND EXPENDITURE AND CHANGES IN RESERVES  
AND FUND BALANCES FOR THE PERIOD 1 JANUARY 2014 TO 31 DECEMBER 2014**

(English only)

1



UNESCO

INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION (IOC)

**STATEMENT OF INCOME AND EXPENDITURE AND CHANGES IN RESERVES AND FUND BALANCES  
FOR THE PERIOD 1 JANUARY 2014 TO 31 DECEMBER 2014**

(EXPRESSED IN US DOLLARS)

	Programme Activities	Earmarked Activities	Total Year 2014	Comparative Total Year 2012
<b>INCOME</b>				
Voluntary Contributions - Schedule 1.3	832,369.39	-	832,369.39	655,203.82
Other income:				
Interest	10,205.00	-	10,205.00	16,255.00
Earmarked - Schedule 1.3	-	425,242.50	425,242.50	580,016.46
<b>TOTAL INCOME</b>	<b>842,574.39</b>	<b>425,242.50</b>	<b>1,267,816.89</b>	<b>1,251,475.28</b>
Cash Disbursements Schedule 1.2	499,631.93	706,982.20	1,206,614.13	1,611,057.37
Increase (Decrease) in balance of unliquidated obligations	15,143.86	(109,952.36)	(94,808.52)	(130,870.03)
<b>TOTAL EXPENDITURE</b>	<b>514,775.79</b>	<b>597,029.82</b>	<b>1,111,805.61</b>	<b>1,480,187.34</b>
<b>EXCESS (SHORTFALL) OF INCOME OVER EXPENDITURE</b>	<b>327,798.60</b>	<b>(171,787.32)</b>	<b>156,011.28</b>	<b>(228,712.06)</b>
Reserves and fund balances, beginning of the period	1,988,095.40	1,354,329.58	3,342,418.98	3,526,033.18
<b>RESERVES AND FUND BALANCES, END OF THE PERIOD</b>	<b>2,315,894.00</b>	<b>1,182,536.26</b>	<b>3,498,430.26</b>	<b>3,297,321.12</b>

Ebina Sarr  
Chief BFM/FAS



**INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION**  
(of UNESCO)

**Twenty-eighth Session of the Assembly**

UNESCO, Paris, 18–25 June 2015

**REPORT ON BUDGET EXECUTION (2014)**

**CORRIGENDUM**

Please note that an error slipped in Table 1 and the title of Chart 1 as highlighted below. The total 2014 Expenditure figure in \$ should read **10,388.738.61**.

**Table 1.** Consolidated Report on 2014 Expenditure by Expected Result and by Function as at 31 December 2014: all sources of funding (in US dollars=\$)

Main Line of Action 3: Promoting knowledge and capacity for protecting and sustainably managing the ocean and coasts	Regular Budget	Special Account	Funds-in-Trust	TOTAL
<b>ER 4 - Scientific understanding of ocean and coastal processes bolstered and used by Member States to improve the management of the human relationship with the ocean</b>				
Function A: Foster ocean research to strengthen knowledge of ocean and coastal processes and human impacts upon them	73 588,66	101 906,10	251 571,36	427 066,12
Function B: Maintain, strengthen and integrate global ocean observing, data and information systems	172 259,48	22 014,01	631 127,30	825 400,79
<b>Total ER 4</b>	<b>245 848,14</b>	<b>123 920,11</b>	<b>882 698,66</b>	<b>1 252 466,91</b>
<b>ER 5 - Risks and impacts of ocean-related hazards reduced, climate change adaptation and mitigation measures taken, and policies for healthy ocean ecosystems developed and implemented by Member States</b>				
Function C: Develop early warning systems and preparedness to mitigate the risks of tsunamis and ocean-related hazards	159 017,38	760 461,35	1 441 458,32	2 360 937,05
Function D: Support assessment and information to improve the science-policy interface	53 384,65	23 870,08	1 354 624,54	1 431 879,27
<b>Total ER 5</b>	<b>212 402,03</b>	<b>784 331,43</b>	<b>2 796 082,86</b>	<b>3 792 816,32</b>
<b>ER 6 - Member States' institutional capacities reinforced to protect and sustainably manage ocean and coastal resources</b>				
Function E: Enhance ocean governance through a shared knowledge base and improved regional cooperation	183 533,38	162 788,73	453 898,17	800 220,28
Function F: Develop the institutional capacity in all of the functions above, as a cross-cutting function	91 774,74	93 610,03	1 091 803,66	1 277 188,43
<b>Total ER 6</b>	<b>275 308,12</b>	<b>256 398,76</b>	<b>1 545 701,83</b>	<b>2 077 408,71</b>
<b>SUB-TOTAL FOR 3 EXPECTED RESULTS</b>	<b>733 558,29</b>	<b>1 164 650,30</b>	<b>5 224 483,35</b>	<b>7 122 691,94</b>
IOC contribution to United Nations Development Assistance Framework (UNDAF)	0,00			0,00
IOC operating costs	23 026,23			23 026,23
Contribution to UNESCO Common Charges	90 499,00			90 499,00
<b>STAFF (supporting more than one ER)</b>	<b>3 205 366,13</b>	137 279,79		3 342 645,92
Special Account unliquidated obligations 1 January 2014		-190 124,48		-190 124,48
<b>TOTAL</b>	<b>4 052 449,65</b>	<b>1 111 805,61</b>	<b>5 224 483,35</b>	<b>10,388.738.61</b>

**Chart 1.** 2014 Expenditure by source (Regular Programme vs Extrabudgetary) –  
\$ **10,388.738.61**



**DETAILED INFORMATION BY SOURCE OF FUNDING**



## 7. 의장 연설문







**Chairman's Statement on the state  
of Intergovernmental Oceanographic Commission (IOC)**

Addressed by Dr. Sang-Kyung Byun  
on the occasion of the Twenty-eighth Session of the IOC Assembly

18 June 2015

Your Excellencies,  
Distinguished guests and colleagues,  
Ladies and Gentlemen,

It is a pleasure and honour for me to report on the state of the Intergovernmental Oceanographic Commission (IOC) to its Twenty-eighth Session of the Assembly on behalf of the IOC Officers.

This is the last IOC Assembly chaired by me. I should like to express my sincere appreciation to the member states for allowing me to work together and to the Republic of Korea for unwavering support to discharge my responsibilities. The collaboration with IOC secretariats was also a source of constant inspiration to me during my term of office. Taking this opportunity, I would like to pay tribute, on behalf of the Officers, to Capt. Javier Armando Valladares, former chairman of IOC, for continuous advice with his vast experience and good humor.

Five years ago we celebrated the 50th anniversary of IOC. Since then, we had faced challenges arising from the change of external circumstances among which the financial situation of UNESCO and IOC has drawn our keen attention. The current budget reduction has never been experienced before, yet IOC has endeavored to respond to it by minimizing its impact on activities. IOC hopes the Member States to be informed of the current financial situation of IOC so as to explore the ways to contribute to its extra-budgetary funds.

We have our definite goals adopted as four High Level Objectives in the Medium Term Strategy for 2014-2021. They are:

1. Healthy ocean ecosystems and sustained ecosystem services,
2. Effective early warning systems and preparedness for tsunamis and other ocean-related hazards,
3. Increased resiliency to climate change and variability and enhanced safety, efficiency and effectiveness of all ocean-based activities through scientifically-founded services, adaptation and mitigation strategies, and
4. Enhanced knowledge of emerging ocean science issues.

Member States should take into account four High Level Objectives in developing their national plans and programmes for ocean sciences, observations and services, as well as in planning their contribution to and participation in the programmes of the Commission.

Ladies and gentlemen,

I will report briefly the activities carried out since the 27<sup>th</sup> IOC Assembly. As regards the activities prior to June 2014, please refer to my statement on the state of IOC reported during the 47<sup>th</sup> IOC Executive Council last year.

Concerning the administrative process for the post of IOC Executive Secretary, I, accompanied by Former Executive Secretary, Ms. Wendy Watson-Wright, visited the Director General and transmitted a short list of 6 qualified candidates selected by the 47<sup>th</sup> Executive Council. On 25 July 2014, those 6 candidates were evaluated by Interview Panel composed of 6 persons including Deputy Director-General (DDG), IOC Chair, IOC Executive Secretary (ES), Assistant Director-General for Education (ADG/ED), Director of Office of the Director-General (DIR/ODG), Director of Human Resources Management (DIR/HRM) and the result was reported to Director General immediately for her reference. On 21 November 2014 DG sent me a letter informing her nomination of Mr. Ryabinin as IOC Executive Secretary. On 18 December 2014 I was informed by DG that Ms. Flavia Schlegel, ADG for Natural Science, would undertake the function of the IOC Executive Secretary on the temporary basis from 12 January to 28 February 2015 after the departure of Ms. Wendy Watson-Wright. Finally we have Mr. Vladimir Ryabinin here working as our Executive Secretary. Please join me in giving him warm round of applause for his future success in IOC activity.

In follow-up to the decision 7.2 adopted by 47th IOC-EC, the response to Self-Assessment Questionnaires was completed with the help of IOC Secretary and the comments from Member States and submitted to the External Auditor on 2 September 2014 on behalf of IOC. It was stressed that IOC should be working with functional autonomy within UNESCO so as to be different from other programmes and to increase visibility of IOC.

The 2015 IOC officers' meeting was held on 26-27 January 2015 at IOC headquarters with participation of Dr. Ryabinin in order to prepare the provisional agenda and timetable for the 28<sup>th</sup> Assembly and 48th Executive Council. After the meeting, the joint IOC Officers-WMO Bureau Meeting was held on 28 January 2015 at MWO Headquarter, Geneva, Switzerland to review and enhance mutual cooperation. It was decided to have a meeting every two years by visiting counterpart office.

I attended International Conference on "The Indian Ocean Tsunami Warning and Mitigation System 10 Years after the Indian Ocean Tsunami: Achievements, Challenges, Remaining Gaps and Policy Perspectives" held at auditorium of Indonesian Agency for Meteorology, Climatology and Geophysics (BMKG), Jakarta, Indonesia during 24-25 November 2014. The Conference was organized to recognize the achievements of the last 10 years, to highlight work to be done and seek re-commitment to continued investment in the IOTWS among the decision makers and scientists.

I was very pleased to attend the two meetings of sub-commission. They were the 3rd session of the IOC Sub-Commission for Africa and the Adjacent Island States (IOCAFRICA) held in Nairobi, Kenya during 14-15 April 2015 with support of the Kenya government, and the 10th Intergovernmental Session of the IOC Sub-Commission for the Western Pacific (WESTPAC) held in Phuket, Thailand during 12-15 May 2015 with support of Thailand government. During the sessions, I found the strong engagement of the member states into their own regional activity and some exchanges between the two sub-commissions of IOCAFRICA and WESTPAC.

Following decision 4.2 of the 45<sup>th</sup> Session of IOC Executive Council to improve IOC's activities in the area of sustained ocean observations and services, the fourth Regional Forum was held on 11-13 April 2015, in Nairobi, Kenya, with the participation of 29 experts from 14 Member States of Group V, under the auspices of the IOCAFRICA and the government of Republic of Korea. This workshop was a series of fora held for Group II in Varna, Bulgaria, in March 2012, Group III in Rio de Janeiro, Brazil, in March 2013, and Group IV in Bangkok, Thailand in November 2013. The Forum was held in conjunction with IOCAFRICA-III to facilitate the participation of experts. I expect such forum to be continued for the development of operational oceanography in IOC.

Ladies and gentlemen,

I am very pleased to report to you on regional meetings

I had an opportunity to participate at the 4<sup>th</sup> APEC Ocean-related Ministerial Meeting held in Xiamen, China on 28 August 2014 with the theme of “Towards New Partnership through Ocean Cooperation in the Asia Pacific Region” hosted by State Oceanic Administration of China. The Meeting adopted a Joint Ministerial Statement as Xiamen Declaration aiming at reinvigorating more integrated, sustainable, inclusive and mutually favorable partnership among APEC members. Prior to the Meeting, the 3<sup>rd</sup> APEC Blue Economy Forum was held to have dialogue between the public and private sectors on developing the blue economy.

I attended at 2014 Qingdao-China International Ocean Summit Forum during 14-16 October 2014 in Qingdao, China hosted by Xinhua International Ocean Information Center and the Administrative Committee of Qingdao (West Coast) Huandao New Area. This Forum aimed at in-depth discussions on the independent innovation of marine science and technology, the construction of the 21st century maritime Silk Road and approaches for the development of marine economy.

It is worth mentioning that I attended at the “2<sup>nd</sup> Munakata Eco-100 International Forum” held in Munakata, Japan, from 22-24 May 2015 with the theme of “Living with our Oceans: Re-examining the relationship between oceans, forests and humans”. This Forum was organized by UBrain TV JAPAN in collaboration with Munakata city in order to bring together environmental leaders from around the world to discuss practical solutions facing the global environment. Approximately 100 university students were also invited to increase their environmental knowledge and awareness and to nurture them as global citizens of tomorrow.

I was also invited to speak on “Contribution of Asian countries to the IOC activity” at the 20<sup>th</sup> Anniversary Ceremony of the Center for International Collaboration at Atmosphere and Ocean Research Institute (AORI), University of Tokyo held at Kashiwa, Japan on 3 March 2015.

I wish to mention the Yeosu International Ocean Forum held in Yeosu, Korea during 23-24 October 2014 organized by EXPO 2012 Yeosu Korea Foundation under the auspices of the Ministry of Oceans and Fisheries of Korea. The Forum was initiated to improve the roadmap of Yeosu Project, to prioritize distinct projects and seek capacity development in developing nations. It concluded with Joint Statement from high-level roundtable panel meeting where 8 experts from IOC were invited to take part in.

Mesdames et Messieurs,

Comme l'établissent explicitement ses statuts, la COI a travaillé à promouvoir la coopération internationale et de coordonner les programmes de recherche, les services et le renforcement des capacités afin d'accroître les connaissances relatives à la nature et aux ressources des océans et des zones côtières et d'appliquer ces connaissances à l'amélioration de la gestion, au développement durable, à la protection du milieu marin et aux processus de prise de décisions par ses États membres. À cet égard, l'Afrique ainsi que les petits États insulaires en développement, en tant que priorité pour l'UNESCO et la COI, ont besoin de plus d'aide pour le développement de leurs capacités dans les activités marines.

Depuis sa création en 1960, les activités de la COI semblent être plus orientées vers la science plutôt que les services. Cela conduit la COI à faire face à des problèmes continus à des niveaux nationaux et internationaux au cours des dernières décennies, en terme de leadership dans le système des Nations-Unies. Afin de répondre aux questions émergentes des États Membres, relatives aux océans, la COI devrait promouvoir la fonction de prévision océanique pour réduire les catastrophes liées à l'océan et l'impact du changement climatique

sur l'océan mondial et sur les zone côtières. La COI doit, dans un consensus, trouver des mécanismes propres tels que en océanographie opérationnelle pour l'observation et le service durables, ainsi que pour la recherche scientifique et la connaissance.

Il est vrai qu'aujourd'hui nous faisons face à de nombreux défis liés aux réductions budgétaires récentes et également aux balancements de l'autonomie fonctionnelle à l'UNESCO. Néanmoins, l'océan joue un rôle clé dans la durabilité de notre planète, qui confirme l'avenir de la COI dans l'océan bleu et vert. Je reste persuadé que nous pouvons rendre l'avenir de la COI plus clair, plus prometteur et plus prospère, à condition que nous avançons main dans la main pour surmonter ces défis.

Mes chers collègues et distingués représentants des Etats Membres, avançons ensemble !

Je vous remercie de votre aimable attention.

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Ladies and gentlemen,

As stated explicitly in the Statutes, IOC has been working on promoting international cooperation and coordinating 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. In this regard, Africa as well as Small Island Developing States, as priority for UNESCO and for IOC, need more help for their capacity development in oceanic activities.

Since its establishment in 1960, IOC's activities seem to be more focused on science rather than services. This brings IOC in facing continuous challenges on the national and international level during the last decades in terms of its leadership in the UN system. In order to meet the emerging ocean issues of member states, IOC should promote the function in ocean forecasting for reducing ocean-related disasters and climate change impact over the global ocean and coastal seas. IOC should find proper mechanisms, in consensus, such as operational oceanography for sustainable observation and service as well as for scientific research and knowledge.

It is true that today we have many challenges caused by recent budgetary reductions and also by wavering functional autonomy in UNESCO. However, the ocean plays a key role in the sustainability of our planet, which promises IOC's future in the blue and green ocean. I am sure that we can make the future of IOC to be more bright, promising and prosperous if we strive hand in hand to overcome challenges. Let's go forward together!

Thank you for your attention.

## 8. 참가자 명단





**INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION**  
(of UNESCO)

**Twenty-eighth Session of the IOC Assembly**  
**Paris, 18–25 June 2015**

**DRAFT**

**PROVISIONAL LIST OF PARTICIPANTS**

**as of 25 June 2015**

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**IV. REPRESENTATIVES & OBSERVERS OF ORGANIZATIONS/REPRESENTANTS ET OBSERVATEURS D'ORGANISATIONS/ REPRESENTANTES Y OBSERVADORES DE ORGANIZACIONES**

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