



**INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION**  
(of UNESCO)

**INFORMATION DOCUMENT**

**IOC AND THE UNFCCC COP 21:  
FOLLOW-UP TO THE PARIS CLIMATE CHANGE CONFERENCE**

Summary

Main outcome of the 21<sup>st</sup> Conference of Parties to the UN Framework Convention on Climate Change (COP 21), the *Paris Agreement* was approved on 12 December 2015. It sets out an ambitious climate agenda with a formal limit to the increase in the global average temperature at “well below 2 °C”, and establishes a more robust climate regime based primarily on country-driven efforts and commitments, transparent reporting and review mechanisms, ratchet mechanisms to bolster national commitments over five-year cycles, all governed through a mix of legally- and non-legally binding instruments.

Like the 2030 Agenda on Sustainable Development, the Paris Agreement presents a unique set of entry points for IOC engagement with Member States and the UN system in support of the climate change agenda.

This document consists of three main parts:

**Part I (“The Paris Agreement”)** outlines the general scope and elements of the Agreement, its links to specific IOC programmatic activities, and highlights IOC’s role in supporting Member States in its implementation as well as in providing technical assistance to the Intergovernmental Panel on Climate Change toward completion of its Special Report on climate change, oceans and the cryosphere.

**Part II (“IOC Activities in the Context of COP-21”)** presents a global stocktake of IOC climate change activities in the context of COP-21.

**Part III (“Self-assessment of Institutional Engagement”)** takes stock of the strengths and shortcomings of IOC’s institutional engagement (resource and Member States mobilization, media visibility, etc.) and highlights pathways for improvement.

**Annex 1** presents an in-depth mapping exercise linking IOC programmatic activity to textual references from the Paris Agreement.

## PART I: THE PARIS AGREEMENT

---

### General analysis

The *Paris Agreement* was approved on 12 December 2015 at the closing session of the 21<sup>st</sup> Conference of Parties to the UN Framework Convention on Climate Change (UNFCCC COP-21), by general consensus of the **195 State Parties** – an unprecedented feat in the two decades of UNFCCC climate change negotiations. The Agreement notably broke down the Annex I/non-Annex I differentiation structure of previous negotiations, creating a **common system equally applicable to all Parties** while recognizing the differentiated needs of developing countries and specific high-vulnerability groups such as the Small Island Developing States (SIDS).

The Paris Agreement and the associated decision text set out an ambitious agenda that places a somewhat vague but formal limit to the increase in the global average temperature by 2100 at “**well below 2 °C**”, while calling for efforts to aim for the 1.5 °C limit advocated by a number of States, in particular SIDS.

Beyond the common system and the temperature goal, key elements of the Paris Agreement include:

- A non-binding system of **national pledges** to reduce emissions (“Intended Nationally Determined Contributions”, or INDCs);
- A **transparency enforcement mechanism** to ensure accurate national reporting on progress made to reach INDCs as well as promote accountability and effectiveness;
- Agreement to **bolster the INDCs** and other voluntary national commitments every five years, starting in 2023;
- Pledges to mobilize climate finance from public and private sources (the decision text specifies a target yearly figure of **\$100 billion**, but there are no figures in the Agreement itself);
- Further recognition of the **adaptation needs** of vulnerable developing countries by requesting that financial flows into climate change be split equally across adaptation and mitigation measures, with high priority status given to the SIDS and coastal developing States vulnerable groups;
- A whole (albeit weak) section on **Loss and Damage**, both in the decision text and in the legal Agreement, signalling a desire to give the topic as much importance as mitigation and adaptation;
- A clear goal to reach, somewhere between 2050 and 2100, “**balanced**” **greenhouse gas emissions**: all anthropogenic emissions will need to be offset by carbon sinks and reservoirs (the text does not make a distinction between natural sinks such as forests and oceans, and artificial ones such as capture and storage methods).

**Legal aspects.** The Paris Agreement will enter into force once 55 Parties to the UNFCCC accounting in total for 55% of total global greenhouse gas emissions have ratified, signed, or otherwise confirmed acceptance of the Agreement. The deadline for joining the Agreement is 21 April 2017. The Agreement has been legally constructed as a treaty, for the purposes of international law. Nevertheless, only some elements are legally-binding (i.e. text with wording *shall*, *will*, *must*, *etc.*), while the remaining elements are suggestions that Parties can adopt at will (i.e. text with wording *should* and similar variables).

Overall, reaction to the Paris Agreement has been positive, though there are disagreements over whether: (i) the transparency enforcement mechanisms will be enough to hold Parties accountable for their INDCs; (ii) the five-year cycles for reviewing and updating the INDCs will reach

the below-2 °C warming goal (current INDCs only get us to somewhere between 2.7 °C and 3.7 °C); (iii) the Agreement sends enough of a signal to the private sector to discourage further investment in fossil fuels. That said, there is consensus that the Agreement has created a robust framework for increasing ambition and scope of national and multilateral actions against climate change in the next decades.

### Elements relevant to the IOC mandate and core functions<sup>1</sup>

With only one explicit mention of “oceans” in the preamble of the legal text, the Paris Agreement is not as ambitious as some in the “ocean community” might have hoped. It has nevertheless opened important entry points for a stronger IOC involvement in the climate change regime, primarily by noting the importance of “**ensuring the integrity of all ecosystems, including oceans**” (PP 13), recognizing the importance of **research, systematic observation and early warning systems** for climate change adaptation (Art. 7.7.c), and insisting throughout that any actions must be taken in accordance with “**best available science**” (Arts. 4.1, 7.5, 14.1...).

There is potential room for IOC to increase the scope of its climate change activities and involvement with the UNFCCC process. The Agreement places high importance on “**multilateral approaches**” (Art. 11.4) to building the implementation capacity of developing country Parties. Regarding the adaptive capacity of developing countries, in particular, the Agreement encourages “United Nations specialized organizations and agencies... to support the efforts of Parties to implement” (Art. 7.8) appropriate actions.

The **mapping exercise in Annex 1** presents specific language from the legal text of the Agreement and its accompanying decision text related to key aspects of the IOC mandate, core functions and strategic frameworks. Some key highlights follow:

- **Oceans** are referred to explicitly in PP13, but also appear behind language around “sinks and reservoirs of greenhouse gases” referred to in the 1992 Convention (PP12, Art. 5.1);
- As mentioned previously, **systematic observations** are explicitly mentioned as crucial to strengthening scientific knowledge on climate and supporting decision-making (Art. 7.7.c), and emphasis on “best available science” appears frequently. IOC’s main entry points into the climate change regime have been through ocean observation contributions to the Global Climate Observing System (GCOS) – through the Global Ocean Observing System (GOOS) – and scientific contributions to the Intergovernmental Panel on Climate Change (IPCC) through the World Climate Research Programme (WCRP);
- **Early warning systems** are highlighted explicitly, alongside systematic observations, and implicitly within the chapter on averting, minimizing and addressing loss and damage (Art. 8);
- **Mitigation** language emphasizes the importance of sinks of greenhouse gases to “achieve a balance between anthropogenic emissions...and removals” (Art. 4.1), which could be a possible entry point for IOC’s activities around coastal blue carbon, conservation and restoration of coastal ecosystems. During the UNFCCC COP-21 the Government of Australia, announced the establishment of an International Blue Carbon Partnership, and invited other countries to join this effort. IOC-UNESCO, co-organizing the International Blue Carbon Initiative, supports this activity. It is envisaged that the partnership will establish a collaborative network of governments, non-profits, intergovernmental agencies and scientists to scale up understanding of and action on the important role of coastal blue carbon ecosystems in climate change.

**Adaptation** language (Art. 7) emphasizes the concepts of “enhancing adaptive capacity” and “strengthening resilience” while recognizing the importance of “support for and international

---

<sup>1</sup> See Annex 1 for in-depth Mapping Exercise: Main IOC-relevant elements of the Paris Agreement.

cooperation on adaptation efforts”, in particular through early warning systems, systematic observations and research as mentioned above. Beyond GOOS and the multi-hazard warning systems, IOC’s role in assessments such as the Transboundary Waters Assessment Programme (TWAP) could be an important entry point for strengthening adaptive capacities in developing countries.

The Agreement sets up the *Paris Mechanism on **Capacity-building***, and bolsters the role of the UNFCCC’s **Technology Mechanism** (comprised of the Technology Executive Committee and the Climate Technology Centre and Network). Marine technology has been notably absent from the climate change debate and UNFCCC technology transfer framework, but given the wide recognition around the *IOC Criteria and Guidelines on Transfer of Marine Technology* by UNCLOS and most recently SDG#14, there could be an opportunity for sharing know-how and integrate an ocean perspective into both existing and new mechanisms.

Parties did not agree on any solid new sources of **financing for climate change**, though the level of ambition continues to be high. The goal remains to mobilize at least \$100 billion yearly by 2025. Of course, the financing will come from a number of instruments and sources, beyond government funding. The UNFCCC’s *Financial Mechanism* is assured by the Global Environment Facility (GEF) and the Green Climate Fund. IOC has been able to mobilize considerable resources through GEF, and there could be similar opportunities through the Green Climate Fund. IOC is working with the UNESCO Intersectoral Task Force on Climate Change to seek UNESCO accreditation to the Green Climate Fund.

### **Mobilizing IOC around climate change within and beyond the Paris Agreement**

IOC has a unique and important role to play in **assisting Member States fulfil their commitments to the Paris Agreement** through the development and monitoring of increasingly ambitious Nationally Determined Contributions (NDCs), as urged in the Agreement. IOC mobilization can happen both via the scaling up of existing programmes (i.e. ocean acidification, blue carbon, climate change adaptation), and the launch of specific activities and programmes in areas where IOC has a natural comparative advantage such as **technology transfer and capacity development**. IOC has a mandate under UNCLOS to facilitate technology transfer through its *Criteria and Guidelines on the Transfer of Marine Technology* (IOC/INF-1203), and successful history in developing national capacities in ocean science and policy. Integrating and mobilizing IOC’s institutional know-how in these two areas will be particularly important to ensure that developing countries and Small Island Developing States (SIDS) successfully implement their NDCs and other elements of the Paris Agreement.

The 13 April 2016 decision of the Intergovernmental Panel on Climate Change (IPCC) to launch a **Special Report on climate change, oceans and the cryosphere** opens another important opportunity to strengthen IOC’s presence in global climate change frameworks beyond and in parallel to the Paris Agreement. The Special Report aims to consolidate and identify gaps on existing scientific knowledge around the ocean and climate since information on the impacts of climate change on the ocean is currently scattered throughout various chapters of the IPCC assessment framework. Considering its vast scientific networks and unique UN mandate for ocean science, IOC can play a crucial role in mobilizing and coordinating the international scientific community to provide technical assistance to the drafting process of the IPCC Special Report. The Report will ultimately give a higher level of credibility to the ocean as an element of and potential solution to climate change, vis-à-vis decision-makers.

## PART II: IOC ACTIVITIES IN THE CONTEXT OF COP 21 (30 November – 11 December 2015)<sup>2</sup>

---

### Contributions to the UNFCCC's Subsidiary Body for Scientific and Technological Advice (SBSTA)

As lead for GOOS, the Executive Secretary of IOC delivered a statement at the 43<sup>rd</sup> Session of the UNFCCC SBSTA, on 1<sup>st</sup> December 2015, to report on IOC's contributions to systematic observations. He highlighted that the entire climate change debate and existing knowledge is based on observations, highlighting the important role of ocean observations and science in particular. The statement closed with a call to sustain observing systems and expand observations to include new and emerging Essential Climate Variables in the domains of marine biology and ecosystem functioning.

### Official UNFCCC Side Events

IOC was very present within the negotiation area of the COP-21, having organized, contributed to or participated in eight official side events:

- *Taking Implementation of Policy, Programmes and Projects on Blue Carbon Ecosystems to Scale: Identifying the Priority Next Steps* (Co-organized by IOC): the IOC Executive Secretary participated in this roundtable event aimed identified obstacles and opportunities to integrate blue carbon approaches into climate change mitigation and adaptation actions (2 December 2015);
- *One Ocean, One Climate, One UN: Working together for a healthy and resilient ocean* (Organized by UN-Oceans under IOC lead): the IOC Executive Secretary delivered a keynote intervention around major UN-coordinated global ocean-climate observation systems in support of climate change detection and adaptation (2 December 2015);
- *Ocean Session of the Resilience Day at COP 21* (France, Peru, Ocean and Climate Platform): the IOC Executive Secretary delivered a keynote intervention on ocean research and observations in support of ecosystem and human resilience (2 December 2015);
- *Changing oceans and the impact on society* (Plymouth Marine Laboratory): the Executive Secretary spoke on how the UN can help addressing science challenges related to ocean and climate change (3 December 2015);
- *Science-based climate information – Building on evidence to implement policies* (WMO): the Executive Secretary delivered a keynote presentation on the role of ocean observations in the climate change policy-making process (4 December 2015);
- *Ocean acidification and other climate stressors or impacts on the ocean – where we are heading, and what we need to stop it* (Co-organized by IOC & IUCN): IOC Ocean Carbon Project Specialist delivered a keynote intervention on the latest science and policy action needed on the impacts of greenhouse gas emissions on the oceans, including ocean acidification, warming and deoxygenation (7 December 2015);
- *The Importance of Addressing Oceans and Coasts in an Ambitious Agreement at the UNFCCC COP-21* (Co-organized by IOC): synthesis and follow-up event of the *Oceans Day at COP-21*<sup>3</sup> to present the Global Ocean Forum's "Five Year Plan of Action on Ocean and Climate" to negotiators and decision-makers. The Head of the IOC Marine Policy and Regional Coordination Section delivered a keynote intervention on potential IOC synergies with the "Plan of Action" (7 December 2015);

---

<sup>2</sup> For more information on IOC activities at COP 21, visit the *IOC COP 21 Web Portal*: <http://goo.gl/E12ehq>.

<sup>3</sup> See following section on Civil Society Partnerships and Mobilization

- *Realising African Renaissance through Science-Policy Dialogue on Climate Change Adaptation and Resilience* (Co-organized by IOC): the Executive Secretary opened the side event with a focus on how IOC can contribute to enhancing the scientific and technological capacities of African countries in support of adaptation and resilience. Programme Specialist and IOC Regional Liaison Officer for Africa also delivered a keynote intervention on why oceans and coasts matter for climate change in Africa.

These events were attended by negotiators or members of Member State delegations, providing a pathway to channel science-based policy recommendations into the negotiating table. They also enhanced the visibility of IOC and its programmatic activities *vis-à-vis* Member States, experts, representatives of intergovernmental organizations, members of the press and other observers.

IOC worked with a host of active partners to ensure a strong and continuous presence in the Bourget conference centre, including Member States, UN agencies, NGOs and scientific institutions. The Global Ocean Forum, the Ocean and Climate Platform and IUCN stand out as main co-organizers of major IOC events.

### Civil Society Partnerships and Mobilization

Civil society partnerships were crucial to bolstering IOC's presence and giving projection to its institutional messages at COP-21. Together with the Global Ocean Forum, and the Ocean and Climate Platform, IOC co-organized three flagship events, hosted at the Climate Generations Areas (open to the general public) of the Bourget conference center:

The day-long ***Ocean and Climate Forum*** involved over 100 institutional partners to present the objectives and common agenda of ocean-related events at COP-21, with the aim to draw high-level political attention to the need for adoption of an ambitious agreement. The Executive Secretary spoke twice to deliver one of the opening keynotes – side-by-side with French Minister of Ecology Ségolène Royal – and during the Science Session, on the need to sustain and expand ocean observations in the context of climate change detection mechanisms (3 December 2015);

The ***Oceans Day at COP-21*** built on the recommendations and solutions put forward by the Ocean and Climate Forum, previous UNFCCC Oceans Days and the Oceans Day at Rio+20, as well as the outcome of World Oceans Day organized by IOC and the Ocean and Climate Platform on 8 June 2015 at UNESCO Headquarters to underline the major climate and ocean issues from a political perspective, with emphasis on the impacts on the most vulnerable peoples and ecosystems, and suggested next steps both within and outside the UNFCCC framework. The day-long event mobilized high-level decision-makers and Heads of State, including H.S.H Prince Albert II of Monaco, Tommy E. Remengesau Jr., President of Palau, Ségolène Royal, and Manuel Pulgar-Vidal, Minister of Ecology of Peru (4 December 2015);

Held at the UNESCO Pavilion and focused on the SIDS crosscutting theme, the ***Ocean and Climate Moment*** highlighted the impacts of climate change on the ocean and coasts on a global scale, what data and ocean observation systems are needed to effectively monitor these impacts, how to organize international scientific research around these issues, and put forward proposals to foster science-policy synergies to build a post-COP-21 strategy for ocean and climate research. After a keynote opening by the Executive Secretary, the Chair of IOC, Prof. Peter Haugan, spoke on the need to invest in ocean observation, science and ocean literacy (10 December 2015).

These events were covered by the French, international and internal UNFCCC media outlets, and had a total combined audience of around 900 people. IOC and partners worked in parallel to generate social media mobilization. Twitter Analytics estimates indicate that more than 77,500 people visualized the tweets containing the #OceanForClimate hashtag between 2 December and 5 December. Part III contains more estimates of IOC social media reach under *Institutional Visibility*. Combined, these events generated very positive visibility for IOC, provided an opportunity to work

with over 60 NGOs, foundations, businesses and scientific institutions members of the Ocean and Climate Platform as well as to renew collaboration with longstanding partners such as the Global Ocean Forum.

## Exhibits

In addition to the multiple events in the Bourget conference center, IOC organized two exhibits, featuring institutional communications materials (roll-ups, posters, brochures) as well as more substantive scientific and policy-oriented publications, videos and other exhibition material from the various IOC sections. Within the UNFCCC (Blue) Zone, accessible only to accredited delegates, IOC was represented at the **One UN Exhibit**, sharing a booth with WMO. Within the Climate Generations Areas, accessible to the general public, IOC organized multiple-day exhibits within the **UNESCO Pavilion** - in particular, on 3–4 and 10 December, as side events to the *Ocean and Climate Forum*, the *Oceans Day at COP-21* and the *Ocean and Climate Moment*.

IOC was also visible around Paris through exhibits organized by civil society partners such as the members of the Ocean and Climate Platform, notably at the **TARA Pavilion**, near the Grand Palais, and inside the Montparnasse train station, through a large panel developed by TARA Expeditions on the links between ocean and climate.

## Contributions to the UNESCO COP-21 Intersectoral Task-Force

In preparation for COP-21, IOC actively engaged with other UNESCO sectors through the UNESCO COP-21 Intersectoral Task Force, officially chaired by the Assistant-Director General of the Natural Sciences sector with coordination support from the Bureau of Strategic Planning (BSP) of UNESCO. They played a useful role coordinating a master calendar of all of the events organized by the different sectors before and during the conference period, in multiple locations (UNESCO HQ, *Le Bourget*, central Paris, etc.). Task Force coordination was especially important to ensure appropriate allotment of specific days/timeslots to the different UNESCO sectors wishing to use the UNESCO Pavilion space in the Bourget's Climate Generations Areas.

The UNESCO General Conference (3–18 November 2015), in its resolution 67 adopted at its 38<sup>th</sup> session, has given the UNESCO Director-General a strong mandate to “scale up UNESCO’s action on climate change” and confirmed “the commitment of Member States to support UNESCO’s activities and programmes in this essential field”. 38 C/Resolution 67 is the institutional frame around which any decisions will take place about continuing and reforming the Task Force beyond its current COP-21 sunset clause.

## PART III: SELF-ASSESSMENT OF INSTITUTIONAL ENGAGEMENT

---

### Preparations

Preparations for COP-21 at IOC began as early as January 2014, when IOC and BSP began discussing with the French Government about UNESCO’s potential role in and mobilization around the climate conference. IOC was also active from the beginning of 2014 in the mobilization of scientific and civil society institutions, which led to the IOC-hosted launch of the Ocean and Climate Platform on 8 June 2014, at UNESCO HQ, during the celebration of the World Oceans Day. Since June 2014, IOC activities and communication around climate change were all oriented toward feeding the road to COP-21. All activities organized during the conference followed up a well-orchestrated pre-COP timeline of activities and events.

Internally, COP-21 provided an opportunity for intersectional dialogue on key IOC-wide and programme specific messaging. The messaging exercise was coordinated by the Marine Policy and Regional Coordination section, but received IOC-wide inputs, including from field offices. The key policy and scientific messages identified were consolidated into 19 roll-ups, a dedicated IOC COP-

21 institutional brochure, and the many keynote presentations delivered by the IOC Executive Secretary and IOC staff at COP-21 events.

COP-21 showed that the Secretariat can be very successful in engaging in forward-planning and fully mobilizing to engage major policy processes like the UNFCCC COPs. There is nevertheless room for improvement in the structure of communication and engagement across different IOC sections. Recalling the discussion from *Part I*, climate change and the UNFCCC-based climate regime has deep implications for all of IOC programmatic activity.

### **Institutional Visibility**

In total, a little over 1,000 people attended the various events IOC hosted during COP-21. An additional number interacted with IOC through the three exhibition stands and other IOC presence in central Paris. Taking into account the available funds and space, IOC had an efficient and effective presence, with much visibility gain via partnerships with TARA Expéditions, the Ocean and Climate Platform, the Global Ocean Forum and others. It is worth noting the visibility gain from the presence around the Bourget conference center of the IOC institutional and thematic roll-ups, which received positive reviews from event attendees and exhibit visitors.

Given the fact that IOC has a very **social media presence**, the outcome was positive in terms of outreach levels. According to *Twitter Analytics* data, IOC COP-21-related tweets reached 13,000 users between December 1–11, and the #oceanforclimate hashtag reached an estimated 77,591 twitter accounts. Our username on twitter @locUnesco was mentioned in 63 tweets, which reached an estimated 65,910 accounts in total. There is much room for improvement, particularly as IOC matures its presence on Twitter and works more systematically in developing appropriate communications tools for online diffusion. It is crucial that, going forward, IOC expands its social media presence to include Facebook, Google Plus Groups, and LinkedIn. Processing the feedback from COP-21 could provide a great opportunity for major push along these lines.

### **Mobilizing Resources**

IOC mobilized sufficient contributions from key Member States for implementing its activities plan for COP-21. Much of the funding came from the financial contributions of Sweden and Monaco to the World Oceans Day celebrations at UNESCO HQ on 8 June 2015 - these were "carried over" to COP-21. The French Development Agency (AFD) also made a financial contribution. Higher levels of funding could be potentially mobilized through key Member States and national agencies if IOC would like to scale up the level of its participation at future COPs.

### **Mobilizing Member States**

There is much room for improving IOC's mobilization of Member States in the context of the UNFCCC and other intergovernmental processes. It is very positive that IOC developed key messages for the UNFCCC negotiations as part of its COP preparations – that was hugely helpful in ensuring clarity and congruence in the institutional messaging – but it remained a Secretariat-driven process with little consultation with Member States.

In terms of time, starting these messaging exercises early enough in the preparation process would give enough room to consult with the appropriate Member State representatives through circular or bilateral communication. The support of Member States is a *sine qua non* to ensure IOC's key messages feed negotiations such as within UNFCCC, as they are the representatives of IOC in any intergovernmental process. Mobilizing the full voice and weight of its Member States to bolster the visibility of the ocean in the UNFCCC agenda could be a very meaningful IOC contribution to the general efforts of the "ocean community". Mobilizing Member States within the negotiating room has been essential to ensuring major visibility and political weight for forests – the same could be accomplished, in the mid- to long-term for oceans as well.



## ANNEX 1: MAPPING IOC-RELEVANT CONTRIBUTIONS TO THE PARIS AGREEMENT

Element	Text	Text particularly relevant to IOC Mandate	Relevant IOC Activities
Ocean	PP 12	<i>Recognizing</i> the importance of the conservation and enhancement, as appropriate, of <b>sinks and reservoirs of the greenhouse gases</b> referred to in the Convention,	Language encompasses all of IOC activities and programmes on climate change.
	PP 13	<i>Noting</i> the importance of ensuring the integrity of all ecosystems, including <b>oceans</b> , and the protection of biodiversity, recognized by some cultures as Mother Earth, and noting the importance for some of the concept of “climate justice”, when taking action to address climate change,	
	Art 5.1	Parties should take action to conserve and enhance, as appropriate, <b>sinks and reservoirs of greenhouse gases as referred to in Article 4, paragraph 1(d)</b> , of the Convention, including forests.	
Observations & scientific research	Art 4.1	In order to achieve the long-term temperature goal set out in Article 2, Parties aim to reach global peaking of greenhouse gas emissions as soon as possible, recognizing that peaking will take longer for developing country Parties, and to undertake rapid reductions thereafter in accordance with <b>best available science</b> , so as to achieve a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century, on the basis of equity, and in the context of sustainable development and efforts to eradicate poverty.	IOC's main entry points into the climate change regime have been through ocean observation contributions to the <b>Global Climate Observing System (GCOS)</b> – through the <b>Global Ocean Observing System (GOOS)</b> – and scientific contributions to the Intergovernmental Panel on Climate Change (IPCC) through the <b>World Climate Research Programme (WCRP)</b>
	Art 7.5	Parties acknowledge that adaptation action should follow a country-driven, gender-responsive, participatory and fully transparent approach, taking into consideration vulnerable groups, communities and ecosystems, and should be based on and guided by the <b>best available science</b> and, as appropriate, traditional knowledge, knowledge of indigenous peoples and local knowledge systems, with a view to integrating adaptation into relevant socioeconomic and environmental policies and actions, where appropriate.	

Element	Text	Text particularly relevant to IOC Mandate	Relevant IOC Activities
	Art 7.7.c	Strengthening scientific knowledge on climate, including <b>research, systematic observation</b> of the climate system and early warning systems, in a manner that informs climate services and supports decision-making;	IOC also strongly supports coordination and cooperation of science efforts with regard to ocean acidification and climate change, for example through the <b>Global Ocean Acidification Observing Network</b> .
	Art 14.1	The Conference of the Parties serving as the meeting of the Parties to the Paris Agreement shall periodically take stock of the implementation of this Agreement to assess the collective progress towards achieving the purpose of this Agreement and its long-term goals (referred to as the “global stocktake”). It shall do so in a comprehensive and facilitative manner, considering mitigation, adaptation and the means of implementation and support, and in the light of equity and the <b>best available science</b> .	
<b>Early Warning &amp; Services (including Loss and Damage)</b>	Art 7.7.c	Strengthening scientific knowledge on climate, including research, systematic observation of the climate system and <b>early warning systems</b> , in a manner that informs climate services and supports decision-making;	The development of regional and national multi-hazard early warning systems as advocated in the context of the <b>IOC Tsunami programme</b> is relevant.  <b>The WMO-IOC Joint Technical Commission for Oceanography and Marine Meteorology (JCOMM)</b> contributes to these provisions through the provision of marine meteorological and oceanographic services in support of the safety of life and property at sea and in coastal areas; of risk management for ocean-based economic, commercial and industrial activities; of the management of marine and coastal areas; and the coordination it provides for data, information, products and services required to support climate research and the detection and prediction of climate variability.
	Art 8.1	Parties recognize the importance of <b>averting, minimizing and addressing loss and damage</b> associated with the adverse effects of climate change, including extreme weather events and slow onset events, and the role of sustainable development in reducing the risk of loss and damage.	
	Art 8.4	Accordingly, areas of cooperation and facilitation to enhance understanding, action and support may include: (a) <b>Early warning systems</b> ; (b) <b>Emergency preparedness</b> ; (c) Slow onset events; (d) Events that may involve irreversible and permanent loss and damage; (e) Comprehensive risk assessment and management; (f) Risk insurance facilities, climate risk pooling and other insurance solutions; (g) Non-economic losses; (h) Resilience of communities, livelihoods and ecosystems.	

Element	Text	Text particularly relevant to IOC Mandate	Relevant IOC Activities
Mitigation	Art 4.1	In order to achieve the long-term temperature goal set out in Article 2, Parties aim to reach global peaking of greenhouse gas emissions as soon as possible, recognizing that peaking will take longer for developing country Parties, and to undertake rapid reductions thereafter in accordance with best available science, so as to achieve a <b>balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases</b> in the second half of this century, on the basis of equity, and in the context of sustainable development and efforts to eradicate poverty.	<p>All mentions of greenhouse gases sinks and reservoirs are possible entry point for the conservation and restoration of coastal blue carbon sinks.</p> <p>The <b>Coastal Blue Carbon</b> manual co-produced by IOC, IUCN and Conservation International facilitates the measuring of carbon sinks in coastal and marine ecosystems.</p> <p>During the UNFCCC COP-21 the Government of Australia, announced the establishment of an International Blue Carbon Partnership, and invited other countries to join this effort. IOC-UNESCO, co-organizing the International Blue Carbon Initiative, supports this activity. It is envisaged that the partnership will establish a collaborative network of governments, non-profits, intergovernmental agencies and scientists to scale up understanding of and action on the important role of coastal blue carbon ecosystems in climate change.</p>
	Art 5.1	Parties should take action to conserve and enhance, as appropriate, <b>sinks and reservoirs of greenhouse gases</b> as referred to in Article 4, paragraph 1(d), of the Convention, including forests.	
Adaptation	Art 7.1	Parties hereby establish the <b>global goal on adaptation of enhancing adaptive capacity, strengthening resilience and reducing vulnerability to climate change</b> , with a view to contributing to sustainable development and ensuring an adequate adaptation response in the context of the temperature goal referred to in Article 2.	<p>Entry points for IOC work on <b>Integrated Coastal Area Management</b> such as through the Coastal Adaptation handbooks produced by IOC, ocean governance (LME), observations, climate-focused marine assessments such as the <b>Transboundary Waters Assessment Programme</b> (TWAP), data sharing and capacity development / Transfer of marine technology to enhance adaptive capacity of Member States.</p>
	7.5	Parties acknowledge that <b>adaptation action should follow a country-driven, gender-responsive, participatory and fully transparent approach</b> , taking into consideration vulnerable groups, communities and ecosystems, and should be based on and guided by the <b>best available science</b> and, as appropriate, traditional knowledge, knowledge of indigenous peoples and local knowledge systems, with a view to integrating adaptation into relevant socioeconomic and environmental policies and actions, where appropriate.	

Element	Text	Text particularly relevant to IOC Mandate	Relevant IOC Activities
	7.6	Parties recognize the importance of <b>support for and international cooperation on adaptation efforts</b> and the importance of taking into account the needs of developing country Parties, especially those that are particularly vulnerable to the adverse effects of climate change.	
	7.7	Parties should strengthen their cooperation on enhancing action on adaptation, taking into account the Cancun Adaptation Framework, including with regard to: <ul style="list-style-type: none"> <li>(a) Sharing information, good practices, experiences and lessons learned, including, as appropriate, as these relate to science, planning, policies and implementation in relation to adaptation actions;</li> <li>(b) ...</li> <li>(c) <b>Strengthening scientific knowledge on climate, including research, systematic observation of the climate system and early warning systems, in a manner that informs climate services and supports decision-making;</b></li> <li>(d) <b>Assisting developing country Parties in identifying effective adaptation practices, adaptation needs, priorities,</b> support provided and received for adaptation actions and efforts, and challenges and gaps, in a manner consistent with encouraging good practices;</li> </ul>	
	7.8	<b>United Nations specialized organizations and agencies</b> are encouraged to support the efforts of Parties to implement the actions referred to in paragraph 7 of this Article, taking into account the provisions of paragraph 5 of this Article.	

Element	Text	Text particularly relevant to IOC Mandate	Relevant IOC Activities
<b>Capacity Development</b>	Art 6.8	Parties recognize the importance of integrated, holistic and balanced non-market approaches being available to Parties to assist in the implementation of their nationally determined contributions, in the context of sustainable development and poverty eradication, in a coordinated and effective manner, including through, inter alia, mitigation, adaptation, finance, technology transfer and <b>capacity-building</b> , as appropriate.	Transfer of Marine Technology: <b>IOC Criteria and Guidelines on Transfer of Marine Technology</b> remains the point of reference for all activities in this field as well as in capacity development, within and well beyond IOC.
	Art 11.1	Capacity-building under this Agreement should <b>enhance the capacity and ability of developing country Parties, in particular countries with the least capacity, such as the least developed countries</b> , and those that are particularly vulnerable to the adverse effects of climate change, such as <b>small island developing States</b> , to take effective climate change action, including, inter alia, to <b>implement adaptation and mitigation actions</b> , and should <b>facilitate technology development</b> , dissemination and deployment, access to climate finance, relevant aspects of <b>education, training and public awareness</b> , and the transparent, timely and accurate communication of information.	
	Art 11.2	Capacity-building should be country-driven... guided by lessons learned, including those from capacity-building activities under the Convention, and should be an effective, iterative process that is participatory, cross-cutting and gender-responsive.	
<b>Technology Transfer</b>	Art 6.8	Parties recognize the importance of integrated, holistic and balanced non-market approaches being available to Parties to assist in the implementation of their nationally determined contributions, in the context of sustainable development and poverty eradication, in a coordinated and effective manner, including through, inter alia, mitigation, adaptation, finance, <b>technology transfer</b> and capacity-building, as appropriate.	Transfer of Marine Technology: <b>IOC Criteria and Guidelines on Transfer of Marine Technology</b> remains the point of reference for all activities in this field as well as in capacity development, within and well beyond IOC.

Element	Text	Text particularly relevant to IOC Mandate	Relevant IOC Activities
	Art 10.1	Parties share a long-term vision on the importance of fully realizing technology development and transfer in order to improve resilience to climate change and to reduce greenhouse gas emissions.	
	Art 10.4	A technology framework is hereby established to provide overarching guidance to the work of the Technology Mechanism in promoting and facilitating enhanced action on technology development and transfer in order to support the implementation of this Agreement, in pursuit of the long-term vision referred to in paragraph 1 of this Article.	
<b>Science communication</b>	Art 12	Parties shall cooperate in taking measures, as appropriate, to enhance climate change education, training, public awareness, public participation and public access to information, recognizing the importance of these steps with respect to enhancing actions under this Agreement.	IOC activities around ocean literacy and marine science communication (i.e. Sea Change Project)
<b>Financing</b>	OP 52	...prior to 2025 the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement shall set a new collective quantified goal from a floor of USD 100 billion per year, taking into account the needs and priorities of developing countries;	IOC has been able to mobilize considerable resources through GEF, and there could be similar opportunities through the Green Climate Fund. IOC is working with the UNESCO Intersectoral Task Force on Climate Change to seek UNESCO accreditation to the Green Climate Fund.
	OP 55	encouraging the coordination of support from, inter alia, public and private, bilateral and multilateral sources, such as the Green Climate Fund, and alternative sources in accordance with relevant decisions by the Conference of the Parties;	
	OP 59	<i>Decides</i> that the Green Climate Fund and the Global Environment Facility, the entities entrusted with the operation of the Financial Mechanism of the Convention, as well as the Least Developed Countries Fund and the Special Climate Change Fund, administered by the Global Environment Facility, shall serve the Agreement;	
	Art 2.1.c	Making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development.	

Element	Text	Text particularly relevant to IOC Mandate	Relevant IOC Activities
	Art 6.8	Parties recognize the importance of integrated, holistic and balanced non-market approaches being available to Parties to assist in the implementation of their nationally determined contributions, in the context of sustainable development and poverty eradication, in a coordinated and effective manner, including through, inter alia, mitigation, adaptation, <b>finance</b> , technology transfer and capacity-building, as appropriate.	
	Art 9.1	Developed country Parties <b>shall provide financial resources</b> to assist developing country Parties with respect to both mitigation and adaptation in continuation of their existing obligations under the Convention.	
	Art 9.3	...developed country Parties should continue to take the lead in <b>mobilizing climate finance from a wide variety of sources</b> , instruments and channels, noting the significant role of public funds... Such mobilization of climate finance should represent a progression beyond previous efforts.	
	Art 9.4	The provision of <b>scaled-up financial resources</b> should aim to achieve a balance between adaptation and mitigation, taking into account country-driven strategies, and the priorities and needs of developing country Parties, especially those that are particularly vulnerable to the adverse effects of climate change and have significant capacity constraints, such as the least developed countries and small island developing States, considering the need for public and grant-based resources for adaptation.	
	Art 10.6 (technology transfer)	Support, including <b>financial support</b> , shall be provided to developing country Parties for the implementation of this Article, including for strengthening cooperative action on technology development and transfer at different stages of the technology cycle, with a view to achieving a balance between support for mitigation and adaptation.	