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PROJECT PROPOSAL REQUEST

1 . PROPOSAL TITLE

Climate Change Workshop Part II

2 . BRIEF OVERVIEW OF THE PROPOSAL AND ITS EXPECTED OUTCOME

Give a very brief overview (max 150 words) on your proposal and its expected outcomes. Use bullet point to list outcomes. Be succinct and clear as this may be used to summarise your project for the report.

Climate change is a high priority issue for the IWC. In late 2021, as a consequence of the pandemic, the SC held a significantly down-sized virtual workshop on this topic. It met in just three three-hour sessions. Its report is available online¹.

The originally approved proposal for a climate change workshop was for an in-person meeting lasting several days but it was decided in 2021, after earlier decisions to delay the workshop because of the pandemic, that some progress should be made via the virtual workshop (phase one). As the report shows, there is more work that can be usefully done and in particular in the context of what might be termed the ‘indirect effects’ of climate change on cetaceans. Paper E10 also provides some further background.

This proposal addresses one of the key recommendations of the 2021 workshop, notably progress should be continued via a follow-up in-person workshop (phase two).

3 . RELEVANT IWC SCIENTIFIC COMMITTEE GROUPS OR SUB-GROUPS

List all the IWC Scientific Committee groups or sub-groups that the outcomes of this work would be relevant to and provide a brief (1-2 lines) explanation of how it would contribute more widely to their ongoing programmes of work. Where possible, do not simply list only the sub-committee within which or for which the project proposal was generated.

Climate change is an overarching issue for all the work of the Scientific Committee and of high relevance to all sub-committees.

The SC’s 2021 report (section 14.4 and several other sections) underscores how climate change either exacerbates threats faced by cetaceans (e.g. pollution or prey availability) or renders more complex the ability of policy makers to determine optimal measures to manage these threats.

This proposal (and the original proposal for a workshop made to previous SCs) was generated by the Environment sub-committee but, as the membership of the steering committee (participation in which will likely grow as the initiative progresses) shows, there is continuing board interest across all parts of the SC.

4 . TYPE OF PROJECT (PLEASE TICK)

¹ <https://iwc.int/management-and-conservation/environment/climate-change>

| | |
|--|---|
| Research project | |
| Modelling | |
| Workshop/meeting | X |
| Database creation/maintenance | |
| Compilation work/editing (<i>e.g. on whalewatching regulations, SOCER, etc.</i>) | |
| Other (<i>please specify below</i>) | |
| | |

5. BRIEF DESCRIPTION OF THE PROPOSAL AND ITS CONNECTION WITH SCIENTIFIC COMMITTEE RECOMMENDATIONS (DO NOT EXCEED 1500 WORDS)

(A) BACKGROUND, RATIONALE, AND RELEVANCE TO THE PRIORITIES IDENTIFIED BY THE IWC SCIENTIFIC COMMITTEE:

Provide a clear explanation of the background and rationale for the proposal and its relevance to Scientific Committee identified priorities. Clearly identify the most relevant and recent Scientific Committee recommendations.

The overarching aims for the workshop are to improve understanding of how climate change is affecting and will affect cetaceans, and how the IWC's science and stewardship mission can best address these challenges, working in collaboration with other organisations.

The workshop will be able to use the participants' knowledge to conduct structured elicitation around the effectiveness of mitigation/conservation actions. This will help to inform processes at national or regional level, including the prioritisation of populations or species.

The latest report from the IPCC shows that anthropogenic climate change is rapid, widespread, and intensifying (IPCC, 2021). Global warming of 1.5 or 2°C – the upper limit defined in the Paris Agreement – will be exceeded during the 21st century unless deep reductions in CO₂ and other greenhouse gas emissions occur. But even then, there are many changes due to past and future greenhouse gas emissions that will remain irreversible for centuries or even millennia, especially in the ocean. Examples include the melting of the Greenland and Antarctic Ice Sheets, global sea level rise, ocean warming, deep ocean acidification, and deoxygenation. Climate change may also affect entire ocean currents. The Atlantic Meridional Overturning Circulation (AMOC), for example, is predicted to weaken over the 21st century. The same holds true for other abrupt responses and tipping points, such as a strongly increased Antarctic Ice Sheet melt. The continued mass loss of both the Greenland and Antarctic Ice Sheets will contribute to global sea level rise over the 21st century. Even under large net negative CO₂ emissions, it will take several centuries or even millennia for global mean sea level to reverse course.

Whilst there is growing evidence that cetaceans are being affected by climate change, how this is happening, and its precise consequences are far from clear. The 2021 virtual workshop reviewed some interactions and potential consequences, but there are a range of other interactions between cetaceans and climate change that are now coming into improved focus, such as the effects of increased freshwater ingress into cetacean habitats, persistent areas of atypically warm water and increased storminess. These too deserve consideration so that a more coherent and overarching understanding can be achieved.

The International Whaling Commission has held workshops focused on climate change bringing experts together from all around the world on several previous occasions (i.e. 1995, 2007, 2010 and 2014). The latest workshop was held virtually last year (2021), but as just three three-hour sessions. It looked at a range of topics. It considered mainly baleen whales, including, for example, case studies on North Atlantic right whales (*Eubalaena glacialis*) and eastern North Pacific (ENP) grey whales (*Eschrichtius robustus*). However, it did not cover its full agenda and “made the following recommendation: that a further (i.e. part two) and preferably in-person workshop, to look more fully at some matters, should be held after the review of this workshop report by the Scientific Committee.”

(B) SPECIFIC OBJECTIVES OR TOR AND DELIVERABLES/OUTCOMES:

Provide the specific objectives and the expected deliverables. In the case of workshops and meetings, include the Terms of Reference (ToR) and expected outcomes.

The 'phase two' workshop will review the latest information on the effects of climate change on cetaceans, thereby adding considerably to the work already done by the 2021 workshop, and its primary deliverable will be its report which will include recommendations for further research and for appropriate conservation actions. In addition to the topics outlined in paper E10, and the 2010 workshop report (which includes an annex identifying new relevant scientific information), the latest edition of the SOCER report also identifies new studies of relevance.

TOR –

- i. To continue the review of the latest information pertaining to the impacts, both direct and indirect, on cetaceans of climate change that was instigated at the 2021 virtual workshop; and
- ii. To provide a comprehensive set of recommendations that are intended to help focus research activities aiming at a fuller understanding of impacts; and
- iii. To produce a comprehensive set of recommendations aimed at helping to mitigate adverse effects based on the best available expert advice; and
- iv. To work with the appropriate IWC communication team and mechanisms to highlight and explain the risks presented by climate change to cetacean populations and species.

(C) METHODOLOGICAL APPROACH/WORK PLAN/ADMINISTRATIVE DETAILS

Specify the methods to be applied (novel methods require more explanation than standard ones) and the broad workplan – the detailed timetable appears under Item 5 below.

In the case of workshops and meetings, include the broad work plan including any pre-requisites for the workshop/meeting to take place (apart from funding, e.g. completed analyses, papers etc.) and administrative details (e.g. location, dates, number of participants).

Where: The workshop will be hosted free of cost in Vienna, Austria.

When: The workshop would meet in the period after the next Commission meeting and before the next Scientific Committee meeting.

Who: The steering committee – which will be appointed by the SC - will work to select participants for the meeting and, working with the Secretariat, will arrange all the necessary details. The meeting would be of some thirty people, it is anticipated that ~ten would find funds from non-IWC sources, and hence cost estimates are based on some twenty IPs.

What: Issues to be considered would include but not necessarily be limited to –

1. Physical changes

- a. Extra freshwater ingress into key habitat areas
- b. Extreme temperature events
- c. Increasing storminess
- d. Release of pollutants currently stored in ice (see SOCER, 2022)

2. **Biological changes**, including Harmful Algal Blooms

3. **Further consideration of the effects of changes in human behaviour** driven by climate change that impact on cetaceans

Engagement with regions that are being impacted

Climate change is clearly impacting the developing world; and vulnerable IWC member nations and their scientists (for example from Africa and the Caribbean/Pacific islands) would be very welcome to engage in these discussions. Their attendance could be supported by the Voluntary Assistance Fund. Similarly, it will be especially important to have the involvement of participants from the Arctic region where climate change is proceeding exceptionally fast.

Engagement with other relevant bodies that can help to strengthen research projects and implement conservation actions

The 2021 phase one virtual workshop and the dissemination of its report will have helped to identify the IWC as active in this field within the relevant scientific and policy communities and has already built some significant links.

We already have good engagement with a number of key international bodies, including, for example, CCAMLR and the IUCN IMMA programme. This would be further built on at the phase two workshop. Other key connectivity extends to leading NGOs which are active in this field, including for example WWF.

This enhanced connectivity between relevant bodies will enhance opportunities for the recommendations developed to be taken forward in jointly supported initiatives.

Risks

We live in very uncertain times and a possible flare up of the pandemic or other calamity might affect this workshop. There is little that we can do to mitigate against this but clearly the workshop will abide by all necessary hygiene and health precautions as required at the venue and in Austria.

Costs Amelioration

A workshop of around 30 people is envisaged. Of these it is expected that 10 or so will be sponsored by governments, universities or NGOs, a number would also be local. Participation will also be encouraged from those who qualify for the IWC Voluntary Support Fund. Hence, given also that there will be no venue costs, the request for funding is for some 20 IPs to cover their accommodation, travel and per diems. As the list of likely participants will be initiated after this SC, this has been estimated based on previous funding experience and advice from the Secretariat.

(D) SUGGESTIONS FOR OUTREACH

Please, note that successful proponents will be requested to produce ad hoc material that will be used by the IWC Secretariat for dissemination and outreach.

Climate change is an important issue of global concern and the implications for cetaceans large and small can be expected to be of considerable public and media interest.

An in-person event would provide the opportunity for a public and media briefing on the issues and help to highlight the role of the IWC. The IWC website can also be updated with new information including the report of the workshop when it is publicly available (i.e. a few weeks after the meeting). Resulting papers might also be highlighted.

Austria has kindly offered to host the meeting in Vienna, meaning that in addition to having an attractive setting in mid-Europe at no cost, this will enhance the opportunities for some significant outreach work in association with the workshop there, including potentially with the local university and ministry. For example, this could include one or more public seminars where experts can talk about the issues that the workshop is addressing and, more broadly, the associated work of the IWC.

6 . TIMETABLE FOR ACTIVITIES AND OUTPUTS

Specify the timetable for project activities and expected outputs separately. For projects with multiple distinct elements please indicate interim goals and timeframes. Add as many rows as you need to the tables below. If publications are an expected output please note whether you will submit the manuscript to the IWC's Journal of Cetacean Research and Management.

| Activity to be undertaken | Key person(s) | Start(mm/yy) | Finish (mm/yy) |
|---|------------------------------------|-----------------------------|----------------|
| Appoint Steering Committee and Convener | SC | This meeting | |
| Develop agenda | Steering Committee and Secretariat | May 2022 | June 2022 |
| Develop list of possible participants | Steering Committee and Secretariat | May 2022 | June 2022 |
| Book venue | Steering Committee and Secretariat | June 2022 | |
| Invite participants | Steering Committee and Secretariat | October 2022 | |
| Hold Workshop | Steering Committee and Secretariat | To be decided | |
| Produce Report of Workshop | Secretariat and convener | In time for presentation at | |

| | | | |
|---------------------------|--------------------------|--------|----------------|
| | | SC 69. | |
| Provide WS report to SC69 | Convener and Secretariat | | Before next SC |

| Expected outputs | Completion date (mm/yy) |
|---|-------------------------|
| Report of workshop, including recommendations | TBD |
| Potentially associated publication(s) | TBD |
| New material for the IWC website | TBD |
| | |

7. RESEARCHERS' (OR STEERING GROUP) NAME(S) AND AFFILIATION

Please, also specify if the project team has any direct connection (e.g. same research group or institute, collaborator on common project) with people involved or likely to be involved in taking the funding decision (e.g. IWC SC heads of delegations, SC convenors, etc.). Add as many rows as you need to the table below.

| Name | Affiliation | Connection with decision |
|-------------------------|---|--------------------------|
| Mark Simmonds | University of Bristol, UK | - |
| Teri Rowles | NOAA NMFS, USA | - |
| Rob Williams | Oceans Initiative, Canada | - |
| Heidrun Frisch-Nwakanma | Convention for the Conservation of Migratory Species, Germany | - |
| ECM Parsons | University of Exeter, UK (based in USA) | - |
| Silvia Frey | KYMA sea conservation & research, Switzerland | - |
| Chris Johnson | WWF, Australia | - |
| Viv Tulloch | University of British Columbia, Vancouver Canada | - |
| Fernando Trujillo | Fundación Omacha, Colombia | - |
| Iain Staniland | IWC Secretariat | - |
| Debra Palka | NOAA NMFS, USA | - |
| Laetitia Nunny | Wild Animal Welfare, Catalonia, Spain | - |
| Toshihide Kitakado | Tokyo University of Marine Science and Technology, Japan | - |
| Lorenzo Rojas-Bracho | Chair, IWC Conservation Committee, Mexico | - |
| Patricia Holm | University of Basel, Switzerland | - |
| Michael Stachowitsch | University of Vienna, Austria | - |
| Raphaela Stimmelmayer | North Slope Borough, Barrow, Alaska | - |

8. TOTAL BUDGET

| PROJECT BUDGET | | | | | Please indicate when funds will be needed | | Co-funding funds only |
|--|--|---|-----------------|-----------------|---|------------------|-----------------------|
| | Description | Cost per unit £GBP | Number of units | Total Cost £GBP | 2022 £GBP | 2023 + £GBP | Co-funding £GBP |
| (1) Salaries (by person) | Not salaries but <u>per diems</u> for 20 people. | £75/day (for five days for 20 people) | | 7,500 | Post IWC Commission | But before SC 69 | |
| (2) Travel/subsistence (by person or est. total for IPs) | The workshop would be of some 30 people - 20 funded by the IWC (i.e. IPs) and some ten others who would be otherwise sponsored or self-funded. Attendance would be by invitation only. | £1,110 | 20 | 22,200 | " | " | |
| (3) Services (by item) | | | | 0 | | | |
| (4) Reusable equipment | | | | 0 | | | |
| (5) Consumables | Coffees and biscuits and any extra sundries | £7/day (for 30 people for 3 days) | 30 | 630 | " | " | |
| (6) Shipping & Customs (by Item) | | | | 0 | | | |
| (7) Insurance (by item) | | | | | | | |
| (8) Other | Accommodation costs | £123.50/day (for five days for 20 people) | 20 | 12,350 | " | " | |
| TOTAL | | | | 42,680 | | | |

Co-funding Memo:

| Source | Purpose of Funding | Cost £GBP | Secured/Tentative? |
|-----------------------|---|----------------|--------------------|
| Various sources | ~ Seven 'self-funded' participants supported by government departments, local universities and NGOs covering travel and accommodation | No cost to IWC | |
| | ~ Three self-funded participants supported by the voluntary fund | | |
| Government of Austria | Will provide venue in Vienna | No cost to IWC | |
| TOTAL | | | |

| Total value of project: | Cost £GBP |
|--------------------------|-----------|
| Funds requested from IWC | |
| Co-funding | |
| TOTAL | |

9 . DATA ARCHIVING/SHARING

Please state your plans for data archiving and sharing. Note that data collected primarily under IWC grants are considered publicly available after an agreed period of time for publication of papers, usually about two years. The work of the IWC depends on the voluntary contribution of data to the various databases and catalogues IWC supports. Please consult the Secretariat (secretariat@iwc.int).

The workshop reports and appropriate source documents will be main available via the IWC website.

10 . PERMITS (PLEASE TICK)

| | |
|---|----|
| Do you have the necessary permits to carry out the field work and have animal welfare considerations been appropriately considered? | NA |
| Do you have the appropriate permits (e.g. CITES) for the import/export of any samples? | NA |

If 'Yes' please provide further details and enclose copies where appropriate: