



**CONVENTION ON
MIGRATORY
SPECIES**

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MARINE NOISE

*(Prepared by the Joint Noise Working Group of CMS, ACCOBAMS and ASCOBANS,
the Scientific Council and the Secretariat)*

Summary:

This document reports on progress to implement Decisions 13.58-13.60 and contains proposals for new Decisions. It has been revised by the Sessional Committee of the Scientific Council at its 6th session in July 2023.

MARINE NOISE

Background

1. Anthropogenic marine noise has long been recognized as a major threat to many marine species. Commercial shipping, seismic exploration, sonar technologies and industrial activities collectively raise the ambient noise in the ocean. When considered in addition to the number of other anthropogenic threats in the marine environment, this increase in noise levels can become a life-threatening issue for many marine species. Some impulsive sounds are so loud that they can directly kill marine life.
2. Recognizing this threat, Resolution 12.14 *Adverse Impacts of Anthropogenic Noise on Cetaceans and Other Migratory Species* urges Parties to prevent adverse effects on CMS-listed marine species and their prey by restricting the emission of underwater noise and by ensuring a reduction or mitigation of anthropogenic marine noise through an appropriate regulatory framework or other measures. It further endorses the *CMS Family Guidelines on Environmental Impact Assessment for Marine Noise-generating Activities* found in its Annex, which provide vital guidance in this respect.
3. In 2020, COP13 adopted the following Decisions on this issue:

13.58 Decision directed to the Parties

Parties are requested to:

- a) *disseminate the CMS Family Guidelines on Environmental Impact Assessment for Marine Noise-generating Activities annexed to Resolution 12.14 Adverse Impacts of Anthropogenic Noise on Cetaceans and Other Migratory Species to all national departments involved in deciding on noise-generating activities;*
- b) *inform the Scientific Council about experiences and lessons-learned in the application of these Guidelines, and the need for additional guidance on assessment and mitigation of marine noise.*

13.59 Decision directed to the Secretariat

The Secretariat shall:

- a) *draw Resolution 12.14 Adverse Impacts of Anthropogenic Noise on Cetaceans and Other Migratory Species and the annexed CMS Family Guidelines on Environmental Impact Assessment for Marine Noise-generating Activities to the attention of other relevant intergovernmental organizations and initiatives;*
- b) *strengthen coordination with other international fora to encourage coherence in implementation of policies addressing noise impacts on marine life;*
- c) *add the Advisory Note: Further guidance on independent, scientific modelling of noise propagation (UNEP/CMS/COP13/Inf.8) to the Technical Support Information provided online at <https://www.cms.int/en/guidelines/cms-family-guidelines-EIAs-marine-noise>;*
- d) *request the CMS/ACCOBAMS/ASCOBANS Joint Noise Working Group to review the report on Best Available Technology (BAT) and Best Environmental Practice (BEP) for Three Noise Sources: Shipping, Seismic Airgun Surveys, and Pile Driving published as UNEP/CMS/COP13/Inf.9 and publish the resulting version as a Technical Series to make the information easily accessible to Parties;*
- e) *prior to the last meeting of the Sessional Committee before the 14th meeting of the Conference of the Parties, request Parties to submit information on experiences and lessons-learned in the application of the CMS Family Guidelines on Environmental Impact Assessment for Marine Noise-generating Activities, and the need for additional guidance on assessment and mitigation of marine noise.*

13.60 Decision directed to the Scientific Council

The Scientific Council is requested, subject to the availability of resources, to:

- a) after it has received input from the CMS/ACCOBAMS/ASCOBANS Joint Noise Working Group, review the report on Best Available Technology (BAT) and Best Environmental Practice (BEP) for Three Noise Sources: Shipping, Seismic Airgun Surveys, and Pile Driving, and, if required, develop voluntary noise mitigation guidelines on these activities of concern;
- b) assess the need for updating the CMS Family Guidelines on Environmental Impact Assessment for Marine Noise-generating Activities and/or its Technical Support Information prior to the 14th meeting of the Conference of the Parties.

Report on Best Available Technology (BAT) and Best Environmental Practice (BEP) for Mitigating Three Noise Sources: Shipping, Seismic Airgun Surveys, and Pile Driving

4. As instructed in Decision 13.59 d), the Secretariat worked with the CMS/ACCOBAMS/ASCOBANS Joint Noise Working Group (JNWG) on an iterative review of the report on Best Available Technology (BAT) and Best Environmental Practice (BEP) for Three Noise Sources: Shipping, Seismic Airgun Surveys, and Pile Driving originally published as UNEP/CMS/COP13/Inf.9. This also involved consultations with the Industry Advisory Group, who provided valuable input to drafts.
5. The significantly revised and updated draft report was sent to the Scientific Council in February 2023 for their review as foreseen in Decision 13.60 (a). Based on their comments, the final version is now under preparation for publication as [Technical Series No. 46 Best Available Technology \(BAT\) and Best Environmental Practice \(BEP\) for Mitigating Three Noise Sources: Shipping, Seismic Airgun Surveys, and Pile Driving](#) to make the information easily accessible to Parties.
6. This latest publication adds to the significant contribution CMS has made to developments in the policy arena, playing an important role in developing needed guidance, including of these key documents in addition to relevant Resolutions and Decisions:
 - [CMS Family Guidelines on Environmental Impact Assessment for Marine Noise-generating Activities](#)
 - [Technical Support Information to the CMS Family Guidelines on Environmental Impact Assessment for Marine Noise-generating Activities](#)

New Webpage on Marine Noise

7. In order to provide an easily accessible overview of relevant information on migratory species and underwater noise, a webpage dedicated to this subject was published in May 2022 on the CMS website: <https://www.cms.int/en/topics/marine-noise>. It contains high-level information and relevant links related to noise sources, effects on marine wildlife, on assessing the direct and indirect impacts on migratory species, and on the roles of the Joint Noise Working Group and the Industry Advisory Group.

Notification to the Parties

8. CMS Notification 2022/13 amongst other things reminded Parties of the request in Decision 13.58 (a) to disseminate the *CMS Family Guidelines on Environmental Impact Assessment for Marine Noise-generating Activities* annexed to Resolution 12.14 to all national departments involved in deciding on noise-generating activities.

9. It further requested Parties, in line with Decision 13.58 (b), to inform the Scientific Council about experiences and lessons-learned in the application of the guidelines, and the need for additional guidance on assessment and mitigation of marine noise.
10. No responses specifically addressing marine noise were received.

Coordination with Other Relevant Fora

11. In line with Decision 13.59 a) and b), the Secretariat has drawn Resolution 12.14 and the annexed CMS Family Guidelines on Environmental Impact Assessment for Marine Noise-generating Activities to the attention of other relevant intergovernmental organizations and initiatives. This was done through reports such as the annual update of the Secretary General on implementation of the Omnibus Resolution on Oceans and the Law of the Sea, or the report to the International Whaling Commission (IWC) on relevant outcomes and activities under CMS.
12. The Secretariat also worked with the Secretariat of the Convention on Biological Diversity (CBD) on their Technical Series 99: [Review of the Impacts of Anthropogenic Underwater Noise on Marine Biodiversity and Approaches to Manage and Mitigate Them](#), including by facilitating comments through the JNWG, and presented on CMS work during the [online launch event](#) on 5 May 2022.
13. In addition, the Secretariat facilitated input by the JNWG to the comments provided through the Working Group on Anthropogenic Underwater Noise of the IWC Scientific Committee on the revision of the 2014 Underwater Radiated Noise Guidelines of the International Maritime Organization (IMO).

Questionnaire to the Joint Noise Working Group

14. In order to aid preparations for this COP, the Co-Chairs of the JNWG sent a short survey to the membership to ask for their advice related to the requests directed to the Scientific Council.
15. Decision 13.60 (a) asks the Council, if required, to develop guidelines for mitigation measures on the three noise sources in the BAT/BEP report. The JNWG was asked to indicate whether they consider that such guidelines would be beneficial in addition to the report. Responses received confirmed that the conservation focus of CMS provides a unique opportunity to collate guidance with the interests of the species affected in mind, rather than the broader and differently-focused mandates of many other instruments.
16. JNWG members advised that any guidance to be developed would need to complement ongoing work in other organizations, and that there could be value in underlining, supporting, and reiterating guidance from several fora, as all have different strengths and weaknesses and different areas of focus. Accordingly, CMS guidance might focus specifically on filling any gaps of particular relevance to CMS, while avoiding duplication, and recognising that other fora may be better placed to provide specific technical expertise.
17. One concrete suggestion of a JNWG member in response to the questionnaire was related to the ongoing work in the International Maritime Organization (IMO) on noise from shipping and by EU Member States in relation to threshold values under the Marine Strategy Framework Directive (MSFD). There could be a role for ASCOBANS and ACCOBAMS to develop guidance on optimizing mitigation strategies that are specific for the respective Agreement areas in terms of integrating what is going on within the IMO,

the EU threshold values and non-EU Parties. The guidance could look at measures for shipping that could be appropriate to initiate at the regional level, such as reduced speeds.

18. Overall, it was felt that CMS should focus on determining how to most effectively support the implementation of mitigation measures.
19. With respect to the question whether the [CMS Family Guidelines on Environmental Impact Assessment for Marine Noise-generating Activities](#) and the related [Technical Support Information](#) require an update (Decision 13.60 (b)), advice received indicated that there is no need for an update to the EIA Guidelines at this point, but that the Technical Support Information would benefit from an update, since scientific knowledge has significantly advanced since its publication in 2017. For this update, the Secretariat will first provide the opportunity to the original authors to update their chapters.
20. Another gap identified by members of the JNWG relates to noise impacts and noise mitigation measures for freshwater cetacean species.

Report of the Joint Noise Working Group

21. The full report on activities of the JNWG as submitted by the Co-Chairs can be found in Annex 1 to this document.

Discussion and analysis

22. Marine noise continues to be an issue of major concern for migratory marine species and their prey, as well as for freshwater cetaceans. Since CMS started addressing the issue around two decades ago, policy interest has been garnered also in other relevant fora, such as CBD, IMO and IWC, the European Union and Regional Seas Conventions and Action Plans. This is reflecting both the importance of the issue to date, as well as the projected further increases in international shipping, renewable energy installations such as wind farms and also the ongoing, extensive surveying of the seabed for oil and gas as well as resources interesting for exploitation through deep-sea mining. Numerous guidance documents have been developed and some approved by governments. There have also been a continual advancement of scientific knowledge and technical development.
23. It is important for CMS to define its future role in order to continue giving timely and effective guidance to governments and other stakeholders, making use of and where necessary building upon or complementing related work in other fora. Proactive steps are needed by all relevant stakeholders to achieve the ongoing innovation and adjustment needed for more substantive reductions of negative impacts from noise on marine species and their habitats to enable us to maintain or restore ocean health. This requires as a first step a gap analysis of guidance available from CMS and other for, enabling the Scientific Council with support from the JNWG to identify where further guidance is needed when considering specifically the needs of migratory species and their prey. A gap already identified relates to freshwater cetaceans.

Recommended actions

24. The Conference of the Parties is recommended to:
- a) note the Working Group Report contained in Annex 1 of this document;
 - b) adopt the draft Decisions as contained in Annex 2 of this document;
 - c) delete Decisions 13.58, 13.59 and 13.60.

ANNEX 1

REPORT OF THE JOINT CMS/ACCOBAMS/ASCOBANS NOISE WORKING GROUP (JNWG)

Membership of the JNWG is restricted to experts from the fields of science, policy and relevant civil society organizations that are members and observers of scientific and advisory bodies of CMS, ACCOBAMS and ASCOBANS, as well as additional experts jointly appointed by their Co-Chairs and Secretariats.

The current Terms of Reference for the JNWG can be accessed on this page: <https://www.cms.int/en/topics/marine-noise>.

Regarding the composition of the JNWG, Ms Sigrid Lueber, OceanCare, and Mr Yanis Souami, SINAY, were re-elected as Co-Chairs of the JNWG. Several new members were also added in the triennium.

Moreover, an Industry Advisory Group (IAG) was created (ToR also available on the abovementioned page) to consult with industry experts on the technical feasibility of any proposed or alternative measures and/or solutions. Ross Compton, Energeo Alliance and Chris Waddington, International Chamber of Shipping have been elected as Co-Chairs.

WORK OF THE JNWG

An updated Work Plan for the JNWG was prepared in February 2023 and is accessible on the abovementioned page.

a- Major tasks completed during the triennium

- *Review the report on Best Available Technology (BAT) and Best Environmental Practice (BEP) for Three Noise Sources: Shipping, Seismic Airgun Surveys, and Pile Driving (as per CMS COP Decision 13.59)*
Members of the Joint Noise Working Group provided comments on the original report in March and April 2021. The lead author, kindly supported with funding provided by the Government of the Principality of Monaco under the Migratory Species Champion Programme, subsequently revised and updated the report substantially. It was then shared with the Industry Advisory Group for their input, much of which was accepted by the Joint Noise Working Group in their second review, during which also additional comments were submitted. A further revision of the report was submitted to the CMS Scientific Council for final review in February 2023 as per Decision 13.60 and will be published as CMS Technical Series as per Decision 13.59.
- *Review the ACCOBAMS Noise Hotspot Report II*
The JNWG (and the IAG), as Recommended by the Scientific Committee (SC) in Recommendation 14.6, was invited to review the updated Draft Hotspots Report II with a view to provide additional information, including information concerning impulsive noise-generating activities in the Agreement Area since 2016.
- *EU QUIETSEAS project*,
ACCOBAMS organized a workshop with project partners and some members of the JNWG. It was held in March 2022 in Monaco. JNWG Members contributed to the discussion on setting thresholds to the amount of habitat of cetaceans affected by noise.

- *Advice to CMS Scientific Council*

The JNWG was sent a questionnaire asking for advice regarding the tasks directed to the Scientific Council in COP13 Decisions. Feedback received is summarized in the body of the document.

b- Work still to be planned / addressed

- See tasks outlined in the Work Plan for CMS, ACCOBAMS and ASCOBANS.

c- Difficulties encountered and perspectives

- Ambitious Work Plan: 12 items and 23 sub-items among regular tasks and specific mandates from ACCOBAMS, ASCOBANS and CMS
- Additional requests regularly received by the JNWG for advice on issues regarding underwater noise (e.g., from the GFCM to review and comment their noise-related work, from MEDPOL with regards to noise assessments for the EcAp process, from TG-Noise to contribute to develop assessment methodology...).
- Several items of the Work Plan are lagging behind (e.g., quiet zones) and difficulties to carry out the requested work are pointed out.
- Foreseeable increase of workload in the next future following the adoption of last TG-Noise guidance, as well as the acceleration of the implementation of noise-related monitoring and assessment programs under the scope of the Barcelona Convention.

ANNEX 2

DRAFT DECISIONS

MARINE NOISE

Directed to Parties

14.AA Parties are requested to:

- a) Disseminate the *CMS Family Guidelines on Environmental Impact Assessment for Marine Noise-generating Activities* to all national departments involved in deciding on noise-generating activities and encourage their application;
- b) Through the Secretariat, inform the Scientific Council at the 7th meeting of the Sessional Committee about experiences and lessons-learnt in the application of these Guidelines, and the need for additional guidance on assessment and mitigation of marine noise;
- c) Support the Secretariat in securing the external expertise required to update the Technical Support Information, prepare a gap analysis and identify further needed guidance, as well as develop a report on knowledge and potential need for guidance regarding freshwater cetacean species;
- e)d) [Make use of Technical Series No. 46 *Best Available Technology \(BAT\) and Best Environmental Practice \(BET\) for Mitigating Three Noise Sources: Shipping, Seismic Airgun Surveys and Pile Driving* and bring it to the attention of appropriate regulatory bodies considering the information within marine spatial planning and licencing processes relating to underwater noise-generating activities;](#)
- e)e) Provide information on the implementation of Resolution 12.14 through National Reports.

Directed to the Joint Noise Working Group of CMS, ACCOBAMS and ASCOBANS

14.BB The Joint Noise Working Group of CMS, ACCOBAMS and ASCOBANS is requested, subject to the availability of external resources, to:

- a) Provide a peer review of the updated Technical Support Information to the CMS Family Guidelines on Environmental Impact Assessment for Marine Noise-generating Activities;
- b) Prepare a gap analysis of guidance available from CMS and other fora and identify where further guidance is needed on mitigation of the effects of marine noise in order to address the needs of migratory species and their prey;
- c) Prepare a report on the state of knowledge of noise impacts and noise mitigation measures for CMS-listed freshwater ~~cetacean-mammal~~ species and assess the need for specific guidance for freshwater habitats;
- d) Report to the Scientific Council at the 8th meeting of its Sessional Committee on the progress in implementing this Decision.

Directed to the Scientific Council

14.CC The Scientific Council shall:

- a) Provide advice to the Secretariat and Joint Noise Working Group as to where to focus efforts to support the implementation of mitigation measures;
- b) Provide advice on the future role of the Convention to ensure timely and effective guidance continues to be given to governments and other stakeholders, making use of and building upon related work in other fora;
- c) Consider the recommendations of the Joint Noise Working Group regarding the need for the development of further guidance on mitigation of the effects of marine noise, including on specific guidance regarding freshwater cetacean species, and facilitate their development accordingly, with a view to presenting any outputs to the 15th meeting of the Conference of the Parties.

Directed to the Secretariat

14.DD The Secretariat shall, subject to the availability of external resources,

a) Share Technical Series No. 46 *Best Available Technology (BAT) and Best Environmental Practice (BET) for Mitigating Three Noise Sources: Shipping, Seismic Airgun Surveys and Pile Driving with other appropriate regional and international organizations to strengthen collaborative efforts reducing underwater noise emissions;*

a)b) Facilitate an update of the Technical Support Information to the CMS Family Guidelines on Environmental Impact Assessment for Marine Noise-generating Activities;

b)c) Publish the updated Technical Support Information to the CMS Family Guidelines on Environmental Impact Assessment for Marine Noise-generating Activities as a Technical Series to make it easily accessible to Parties and other stakeholders;

e)d) In collaboration with the Joint Noise Working Group, continue providing up-to-date information on the CMS website on marine noise to assist Parties and other stakeholders in effective mitigation of impacts of underwater noise on marine species;

e)e) Support the development of the reports requested of the Joint Noise Working Group and any further guidance on mitigation of the effects of marine noise, as required;

e)f) Request information from Parties about experiences and lessons-learned in the application of the CMS Family Guidelines on Environmental Impact Assessment for Marine Noise-generating Activities, and the need for additional guidance on assessment and mitigation of marine noise, in time for consideration by the 7th meeting of the Sessional Committee of the Scientific Council.