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LIGHT POLLUTION GUIDELINES FOR WILDLIFE

(Prepared by the Secretariat)

Summary:

This document reports on implementation of COP13 Decisions 13.138 and 13.139. It includes a proposed revision of Resolution 13.5 (Annex 1), proposed new decisions on light pollution (Annex 2) and consolidated CMS light pollution guidelines (Annex 3).

The Conference of the Parties is recommended to adopt the proposed amendments to Res. 13.5 and the proposed new decisions, and to adopt the consolidated CMS light pollution Guidelines.

LIGHT POLLUTION GUIDELINES FOR WILDLIFE

Background

- 1. The Conference of the Parties at its 13th meeting (COP13, Gandhinagar, 2020) adopted Resolution 13.5 Light Pollution Guidelines for Wildlife. The Resolution acknowledges that artificial light is increasing globally and that it is known to adversely affect many species and ecological communities by disrupting critical behaviours in wildlife and functional processes, stalling the recovery of threatened species, and interfering with the ability of migratory species to undertake long-distance migrations integral to their life cycles, or by negatively influencing insects as a main prey of some migratory species. The Resolution also endorses the National Light Pollution Guidelines for Wildlife including Marine Turtles, Seabirds and Migratory Shorebirds, as annexed to the Resolution.
- 2. Through <u>Decisions 13.138 and 13.139 Light Pollution Guidelines for Wildlife</u>, COP13 mandated the Secretariat and the Scientific Council to undertake further work on the subject, notably on taxa of migratory species not covered by the guidelines. The Decisions read as follow:

13.138 Decision directed to: Secretariat

The Secretariat shall:

- a) suggest to its partners that one of the next World Migratory Bird Days should be dedicated to highlighting the effects of light pollution on migratory birds (and also taking into account its effects on bats, marine turtles, insects and other affected animals):
- b) subject to the availability of resources, prepare guidelines for adoption by COP14 on how to effectively avoid and mitigate the indirect and direct negative effects of light pollution for those taxa not yet in the focus of the Guidelines for Wildlife, including Marine Turtles, Seabirds and Migratory Shorebirds taking also into account other existing guidance as relevant.

13.139 Decision directed to: Scientific Council

The Scientific Council is requested, subject to the availability of resources, to consider these issues in its first meeting of the Sessional Committee after COP13, including suggestions regarding how World Migratory Bird Day might be used to highlight the issues associated with light pollution.

Progress in the implementation of COP13 mandates in Decisions 13.138 and 13.139

World Migratory Bird Day.

- 3. Light pollution and its impact on migratory birds was the focus of the annual World Migratory Bird Day campaign in 2022. Activities to mark the day took place globally on both peak days on 14 May and 8 October 2022 under the theme "Dim the Lights for Birds at Night".
- 4. The campaign was generally considered very successful by all partners, and significantly contributed to raising global awareness on the topic of light pollution and its negative effects on migratory birds. The campaign was also used to highlight the development of the new CMS Guidelines on Light Pollution as well as existing best practices on how to address light pollution.

- 5. The campaign saw over 500 registered events take place in over 65 countries to mark World Migratory Bird Day and generated a potential social media reach of over 200 million people. Other highlights included the production of a short <u>one-minute animation video on the topic of light pollution</u> made available in all UN Languages, two <u>Global Light Pollution Webinars</u>, and a news article featuring <u>WMBD 2022 on the UN News Centre</u> as well as an article on the growing effects of light pollution on migratory birds published in the <u>UN Chronicle</u>.
- The good cooperation with ICLEI Local Governments for Sustainability and the CitiesWithNature team in the context of the World Migratory Bird Day 2022 campaign also led to the development of the online <u>City Guide on Light Pollution</u>, which was published by CMS and ICLEI in April 2023.

Light Pollution Guidelines.

- 7. As an initial step towards the implementation of Decision 13.138 b) the Secretariat, in close consultation with the COP-appointed Councillor for Marine Pollution, produced an overview of the information available on the impact of light pollution on different taxa of migratory species of relevance to CMS, and of existing guidelines or similar tools to prevent or mitigate those impacts. The overview was produced under consultancy thanks to a generous voluntary contribution from the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety.
- 8. The overview was submitted to the 5th Meeting of the Sessional Committee of the Scientific Council (ScC-SC5, 2021) (<u>UNEP/CMS/ScC-SC5/Doc.6.4.3</u> and <u>UNEP/CMS/ScC-SC5/Inf.7</u>), with a view to seeking advice and guidance in respect to possible gaps in the availability of appropriate guidelines to prevent or mitigate impacts of light pollution on taxa of migratory species not covered by the guidelines already endorsed by Res. 13.5, and on the need to develop additional guidelines and/or consolidate existing guidelines with a view to filling those gaps.
- 9. Based on its review of the report, the Sessional Committee recommended the development of additional sets of guidelines for landbirds and bats, aimed at complementing the guidelines already adopted by COP13. Draft guidelines have been developed through a consultancy thanks to a voluntary contribution provided by the Government of Germany, and with guidance provided by the COP-appointed Councillor for Marine Pollution, Mark Simmonds. A CMS Technical Workshop on Light Pollution, facilitated by Mark Simmonds, was convened from 29-31 March 2022 to provide input to the development of the guidelines.
- 10. With a view to the submission of the guidelines to COP14 for consideration and adoption, in consultation with the chair of the Scientific Council, it was decided to consolidate the new guidelines with those already endorsed by COP13. The integration of the two sets of guidelines was undertaken through a further consultancy supported by a voluntary contribution from the Government of Australia. In the process of integrating the guidelines, in agreement with the Government of Australia and in consultation with the chair of the Scientific Council, it was decided to also undertake a review of the existing National Light Pollution Guidelines for Wildlife to better adapt them to the international context provided by CMS, while limiting technical revision to a minimum.
- 11. A draft of the consolidated guidelines was presented to available members of the Sessional Committee of the Scientific Council and selected experts who participated in the March 2022 technical workshop in an online workshop held on 12 April 2023,

facilitated by the COP-appointed Councillor for Marine Pollution, Mark Simmonds. Based on the feedback from the workshop and additional comments after the workshop a final draft of the consolidated guidelines was produced. The consolidated guidelines are submitted to COP14 in Annex 3 to this document for consideration and adoption. If adopted, the consolidated guidelines would replace the *National Light Pollution Guidelines for Wildlife* as an annex to Resolution 13.5.

- 12. A revision of Resolution 13.5 is also provided in Annex 1 to this document for the consideration of COP14.
- 13. As regards Decisions 13.138 and 13.139, they are considered fully implemented and proposed to be deleted, while new draft decisions on Light Pollution Guidelines for Wildlife are provided in Annex 2 to this document for the consideration of COP14.

Recommended actions

- 14. The Conference of the Parties is recommended to:
 - a) adopt the draft amendments to Resolution 13.5, as contained in Annex 1 to this document;
 - b) adopt the draft Decisions, as contained in Annex 2 to this document;
 - c) adopt the CMS Light Pollution Guidelines, as contained in Annex 3 to this document;
 - d) delete Decisions 13.138 and 13.139 Light Pollution Guidelines for Wildlife.

ANNEX 1

PROPOSED AMENDMENTS TO RESOLUTION 13.5

LIGHT POLLUTION GUIDELINES FOR WILDLIFE

NB: Proposed new text is <u>underlined</u>. Text to be deleted is crossed out.

Acknowledging that artificial light is increasing globally by at least 2 per cent per year,

Recognizing that artificial light, particularly at night, is an emerging issue for the conservation of wildlife, astronomy and human health,

Further recognizing that when artificial light contributes to the brightening of the night sky it is called light pollution,

Alarmed that artificial light is known to adversely affect many species and ecological communities by disrupting critical behaviours in wildlife and functional processes, stalling the recovery of threatened species, and interfering with a migratory species' ability to undertake long-distance migrations integral to its life cycle, or by negatively influencing insects as a main prey of some migratory species,

Recognizing that artificial light at night also provides for human safety, amenity and increased productivity, and sometimes there are conflicting requirements for human safety and wildlife conservation,

Fully aware that there are both direct and indirect effects of artificial light that can be detrimental to many migratory species, including changing behaviour and/or physiology, reducing survivorship or reproductive output, or indirect effects on prey species, which has consequences for ecosystem functioning,

Noting that there are many documented instances of the negative effect of artificial light on migratory species, including avoidance by marine turtles of nesting on beaches that are artificially lit, migratory shorebirds using less preferable roost sites to avoid lights, and disruption in foraging and fledgling for a number of seabirds,

Recalling CMS Decision 12.17 on Marine Turtles, which requests the Scientific Council to review relevant scientific information on conservation and threats to marine turtles, such as climate change and sky glow,

Recalling EUROBATS Resolution 8.6 on Bats and Light Pollution and its Guidelines for consideration of bats in lighting projects (Publication Series No.8), which encourages Parties to avoid or mitigate the negative impacts of light pollution on bats,

Noting with appreciation the endeavours of the Australian <u>and New Zealand</u> Governments in developing guidance in relation to managing light pollution and identifying a process that can be followed where there is the potential for artificial lighting to affect wildlife, <u>and which</u> contributed to the development of the globally applicable CMS Light Pollution Guidelines,

Also noting with appreciation that light pollution and its impact on migratory birds was the focus of the annual World Migratory Bird Day campaign in 2022, and welcoming in particular the cooperation with ICLEI – Local Governments for Sustainability in the context of the campaign that led to the development of an online City Guide on Light Pollution published by CMS and ICLEI.

The Conference of the Parties to the Convention on the Conservation of Migratory Species of Wild Animals

- 1. Confirms that light pollution refers to artificial light that alters the natural patterns of light and dark in ecosystems;
- 2. Acknowledges that both humans and wildlife need the right light, in the right place, at the right time;
- 3. <u>Endorses Adopts</u> the <u>CMS Light Pollution</u> Guidelines (<u>Guidelines</u>) contained in the Annex to this Resolution designed to aid CMS Parties by providing a framework for assessing and managing the impact of artificial light on susceptible wildlife in their jurisdiction, noting that the Guidelines do not seek to inhibit the benefits afforded by artificial light, where this is necessary for human safety or similar important public interests;
- 4. Encourages Parties, in instances where artificial light is impacting migratory species, to find creative solutions that meet both human requirements and wildlife conservation;
- 5. *Implores* Parties to manage artificial light so that migratory species are not disrupted within, nor displaced from, important habitat, and are able to undertake critical behaviours such as foraging, reproduction and migration;
- 6. *Urges* Parties to use the Guidelines to adopt appropriate measures and processes designed to assess if a lighting project is likely to negatively affect wildlife and identify management tools to minimise and mitigate that impact;
- 7. Recommends that non-Parties and other stakeholders, including the business sector, local and subnational governments and non-governmental organizations use and promote the Guidelines to facilitate broad uptake of processes designed to limit and mitigate the harmful effects of artificial light on migratory species;
- 8. Requests the Secretariat to promote the Guidelines to the CMS Family, including its subsidiary Agreements and Memoranda of Understanding, and more broadly to other relevant multilateral environment agreements, as well as relevant regional agreements and programmes;
- 9. Recommends that Parties, non-Parties and other stakeholders dedicate more attention to night sky brightness and its monitoring including energy costs linked to nocturnal illuminations; and
- 10. Recommends that Parties encourage and support scientific research on the impacts of artificial light on wildlife.

ANNEX 2

DRAFT DECISIONS

LIGHT POLLUTION GUIDELINES FOR WILDLIFE

Directed to the Secretariat

14.AA The Secretariat shall:

- a) subject to the availability of resources, consider the preparation of additional annexes to the CMS Light Pollution Guidelines for adoption by COP15 on how to effectively avoid and mitigate the indirect and direct negative effects of light pollution for those taxa not yet in the focus of the guidelines, such as fish, taking also into account other existing guidance as relevant;
- b) disseminate the *CMS Light Pollution Guidelines* widely, including to other multilateral environment agreements, regional agreements and programmes, intergovernmental organizations, Parties and other stakeholders;
- c) subject to the availability of resources, support Parties and stakeholders in implementing the CMS Light Pollution Guidelines, through webinars or other activities.

Directed to the Scientific Council

14.BB The Scientific Council is requested, subject to the availability of resources, to consider these issues in the 7th or 8th meeting of the Sessional Committee, including possible new evidence of impacts and developments concerning mitigation methods, and provide recommendations to COP15 and advice to the Secretariat on the implementatrion of Decision 14.AA.

ANNEX 3

CMS LIGHT POLLUTION GUIDELINES

NB. The annex is presented in a separate file <u>here</u>.