ADDENDUM 2

ADDITIONAL INFORMATION SUBMITTED BY THE PROPONENT ON THE PROPOSAL FOR THE REMOVAL OF THE BUKHARA DEER (*CERVUS ELAPHUS YARKANDENSIS*) FROM APPENDIX I OF THE CONVENTION*

(*Submitted by the Government of Uzbekistan*)

1) Clarify the taxonomy (including subspecies name used by IUCN and subspecies name used by CMS and the Bukhara Deer MOU),

Response: The mentioned lack of clarity about the taxonomy of Bukhara deer is related to changes in taxonomy applied by the CMS and the inconsistency of the taxonomic reference of CMS with the one used by IUCN. The Proposal uses taxonomy applied currently by CMS, except when referencing sources using another taxonomy.

*The Proposal addresses Bukhara deer as it is listed in Appendix I of CMS "Cervus elaphus yarkandensis 8 * (populations in Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan and Afghanistan)" ([8] Formerly listed as Cervus elaphus bactrianus).*

As the MoU was signed during a time when the Bukhara deer was listed in both Appendices as "Cervus elaphus bactrianus", this name is used in the proposal only when quoting the title of the MoU and in one literature reference.

The IUCN Red List account (Brook et al. 2017) in the section Taxonomy explains why Cervus hanglu should be the correct species name, based on modern scientific evidence. There it is also explained that while scientific studies based on molecular data (Lorenzini and Garofolo 2015) did not support C. h. bactrianus and C. h. yarkandensis as distinct subspecies, the IUCN RL account refers to them throughout for ease of recognition. The Proposal in the Taxonomy information, clearly indicates that Cervus hanglu is the name applied by IUCN and that Cervus hanglu bactrianus and Cervus elaphus bactrianus are scientific synonyms of the name Cervus elaphus yarkandensis, used in the CMS Appendices. Otherwise, the Proposal applies the name C. hanglu only when quoting the IUCN Red List and in references where this name is applied in the title of publications.

Despite the different names applied in the CMS Appendices, in the MoU and in the IUCN Red List the taxonomic scope of the Proposal does not present any ambiguity, as the Bukhara deer in the sense of the Proposal is the only subspecies/population of Cervus elaphus yarkandensis (in the sense of CMS) listed in the CMS Annex I.

2) Report population numbers consistently providing more data (e.g. standard deviation, confidence limits, effort made, detection probability, methods used, demographics, distribution etc.) and refer to numbers reported in the Overview Report prepared for the Third Meeting of Signatories to the Bukhara Deer MOU. It was noted that the methodology described by Cornelis, et. al (2020) in "Estimation of Bukhara red deer (C*ervus hanglu bactrianus*) population in Lower Amu Darya State Biosphere Reserve: mission report" might be useful,

The Overview Report on the Conservation Status and Implementation of the Bukhara Deer MoU (UNEP/CMS/BKD/MOS3/Outcome 1) (CMS, 2024) provides detailed explanations and sources of the population data. The population sizes presented in the Proposal are generally

consistent with the figures provided in the Overview Report. Minor differences are caused by different accounting of transboundary populations. These differences do not affect the overall assessment of the status of Bukhara deer with an overall growing population size.

The population numbers presented for different populations of Bukhara deer are explained in more detail in the Overview Report (CMS, 2024). Available financial opportunities and technical capacity have not allowed for the application of modern survey methods, yielding estimates with the information requested above in the Scientific Committee Comments. Unfortunately, the survey by Cornelis et al. (2020) so far provided the only population estimate with details on detection probability, confidence intervals, survey effort etc.. It should be noticed that the comparison of the results of Cornelis et al. (2020) with the numbers reported in the National Report of Uzbekistan 2020 based on the figures from protected area's staff shows that official number was just little below the lower limit of the calculated 95% confidence interval of Cornelis et al. (2020), indicating that traditionally applied methods of population size assessments may be sufficiently reliable or even be conservative.

In the strictly protected area Beshai Palangon (Tigrovaya Balka) in Tajikistan, protected area staff in cooperation with Tajikistan Nature Foundation and an external expert recently tested new methods of using drones equipped with thermal camera to detect Bukhara deer and survey their population size. The results of the first tests are currently processed and initial data suggest that the density and numbers of Bukhara deer in this key area may exceed the officially reported population size. (pers. comm. Tajikistan Nature Foundation, 2025).

The figures presented in the Overview Report and in the Proposal for the subpopulations are based on similar methods. The respective methods have been consistently applied over the years in each area, if not otherwise indicated in the explanations in the Overview Report. Even under consideration of insufficient robustness and accuracy, they provide a clear picture of the local and overall population trends.

These numbers and trends of the Bukhara deer population have been the reason for the assessment of the entire species Cervus hanglu as Least Concern in the IUCN Red List (Brook et al 2017). The other two subspecies of this taxon are in a much more critical shape so that only the recognized positive trend of Bukhara deer is the driver of the assessment as Least Concern.

Uzbekistan recognizes that currently only the subpopulation of Baday-Tugay SSNR / Lower Amu Darya Biosphere Reserve is certainly above 1,000 individuals and with very high likelihood consists of more than 700 mature individuals. According to current knowledge as presented in the Overview Report (CMS 2024), all other subpopulations are very likely below the threshold of 500 mature individuals, most of them substantially.

3) Explain how sustainable use, extractive (hunting) or non-extractive (e.g. wildlife-watching), if planned, will benefit local communities and motivate them to conserve the Bukhara deer, as recommended by the study "Potential for community-based wildlife management in Central Asia", prepared for the German Federal Agency for Nature Conservation (BfN) and the CMS Secretariat,

Currently none of the Range States has plans to remove the Bukhara deer from its national Red Books, which means that legal protection will remain in place and no regular extractive use or hunting will be possible.

In line with the Legislative Guidance Document "Exceptions to the Prohibition on Taking of Appendix I-listed Species under CMS Article III.5" (CMS 2025), exceptional permits for sport hunting are considered in Uzbekistan. This sport hunting targets only very few males and is supposed to contribute to the funding of conservation measures. These hunts do not affect

the overall population size and trends.

Culling for regulation of the subpopulation size might be considered in the future in areas where it is proven that numbers substantially exceed the carrying capacity, thus causing severe habitat degradation, human-deer conflict and potentially risking sudden crashes of the population size caused by deteriorating fitness, reduced fecundity and recruitment, starvation and/or disease. Currently, only the subpopulation in Baday-Tugay SSNR / Lower Amu Darya Biosphere Reserve may be of a size that reduction by culling might be considered but no such plans are in place yet and attempts are underway to improve the situation by live capture and translocation to suitable habitats for establishment of new sub-populations.

Non-extractive use is limited to tourism activities for which Bukhara deer is potentially an asset. The options and limitations of this approach are explained in the mentioned the study "Potential for community-based wildlife management in Central Asia". No newer developments exist in this regard.

4) Based on the additional information provided, clearly explain why the species is no longer endangered and why it is not likely to become endangered again due to loss of protection from removal from App I as per article III.3 of the Convention.

As explained in the Proposal, in response to inquiry #2 above and in the IUCN Red List account, the Bukhara deer has shown a lasting positive trend and is neither considered endangered in the sense of CMS nor does it meet the criteria for any of the IUCN Red List threatened categories (EW, CR, EN or VU). However, we recognize that currently only one sub-population has a population size clearly above 500 mature individuals while all other subpopulations are despite stable or positive trend are smaller, most of them substantially. Several subpopulations, especially the largest ones, appear to be limited by habitat carrying capacity. This causes risks related with ecosystem degradation, human-deer conflict and potentially density-dependent natural population size reduction. The subpopulations are largely fragmented and connectivity is hard to achieve, causing potential risks.

Under the MoU and in the frame of the Work Programme 2025-2032, the Range States have agreed on a complex set of measure to ensure the conservation and further rehabilitation of Bukhara deer and its habitats. The legal status as Red Book species in all countries would ensure that no take of Bukhara deer would take place in an extent negatively affecting the status of the species and its subpopulations. However, risks related with habitat degradation, fragmentation of habitats and subpopulations, human-deer conflict and – potentially hybridizing with other deer taxa in introduced populations outside the natural range in hunting management areas – still remain.