UN environment programme

CMS

CONVENTION ON MIGRATORY SPECIES

UNEP/CMS/COP15/Doc.28.6/Rev.1
18 December 2025
Original: English

15th MEETING OF THE CONFERENCE OF THE PARTIES
Campo Grande, Brazil, 23 to 29 March 2026
Agenda Item 28.6

PASTORALISM

(Prepared by the Secretariat and the Intersessional Working Group of the Scientific Council on Pastoralism and CMS-listed Species)

Summary:

This document reports on progress to implement Decision 14.179–14.181 on *Pastoralism and Migratory Species*. The document proposes the deletion of Decisions 14.179–14.181 and the adoption of new draft Decisions.

The attached draft Decisions would support the achievement of Targets 2.3 and 6.4 of the Samarkand Strategic Plan for Migratory Species 2024–2032.

This document was revised by the Scientific Council at its 8th Meeting of the Sessional Committee in December 2025. The Revision concerns the specification of the duration of the working group mandate, as described in Decision 15.BB.

PASTORALISM

Background

1. The loss and degradation of habitats is one of the key threats to migratory species, many of which are shared between humans and wildlife, including CMS-listed mammals and birds. Several CMS instruments have identified factors related to pastoralism that require particular attention, including overgrazing by livestock, competition between wildlife and livestock for water and pasture,[1] retaliatory killing in response to livestock depredation,[2] disease transmission,[3] and disturbance and predation by herder dogs,[4] all of which require managed interventions to reduce negative impacts on wildlife.

2. Some migratory species, including birds and mammals that prefer short grass or mixed environments, benefit from extensive pastoral land use. Moreover, preserving rangelands for pastoralism helps prevent their conversion to cropland or other land uses that are less suitable for wildlife. The interactions between pastoralists and wildlife are complex, and addressing them effectively requires the involvement of stakeholders from multiple sectors to develop approaches that promote mutual benefits and peaceful coexistence.

3. Several CMS instruments outline activities that address identified issues and promote coexistence. These include, among others, developing integrated and climate-resilient rangeland and pasture management plans; encouraging sustainable practices such as participatory land-use planning and community-based pasture management;[5] vaccinating livestock and herder dogs;[6] strengthening disease surveillance;[7] and introducing response protocols.[8]

4. The CMS instruments addressing pastoralism identified in paragraph 3 focus on the conservation of individual species or groups of species within a region. However, fulfilling their mandates often requires national-level approaches, such as legislative or procedural reforms, as well as close coordination with global processes. Moreover, the need for similar actions are repeatedly identified across different species and regions, highlighting the opportunity to develop a consolidated and coordinated approach that addresses common issues affecting all CMS-listed species. In recognition of this, COP14 adopted the following Decisions:

[1] e.g. Action Plan for the Conservation of the Asiatic Wild Ass 2024-2033 (AWAAP), Work Programme for the Bukhara Deer 2025-2032 (Bukhara Deer WP), Programme of Work for the Central Asian Mammals Initiative 2020-2026 (CAMI POW)
[2] e.g. Range-wide Strategy for the Persian Leopard 2023–2032 (PeLe Strategy), Programme of Work for the Joint CITES-CMS African Carnivores Initiative 2021-2025 (ACI POW)
[3] e.g. Medium-Term International Work Programme (MTIWP) for the Saiga Antelope 2025-2030, ACI POW
[4] AWAAP, MTIWP for the Saiga Antelope, ACI POW
[5] Sahelo-Saharan Megafauna Action Plan (SSMAP), Action Plan for the Conservation of the Argali 2024-3032 (APCA), AWAAP, Bukhara Deer WP, PeLe Strategy, African Eurasian Migratory Landbirds Action Plan (AEMLAP) and the Multi-species Action Plan to Conserve African-Eurasian Vultures (Vulture MSAP)
[6] AWAAP, MTIWP for the Saiga Antelope, ACI POW
[7] AWAAP, MTIWP for the Saiga Antelope, ACI POW
[8] MTIWP for the Saiga Antelope

14.179 Directed to Parties

Parties are:

a) *invited to carry out studies at the national level to assess the impact of transhumance on biodiversity, well-being, and the risk of zoonotic disease emergence at the human/wildlife/livestock interface; and*

b) *requested to submit to the Secretariat information on these studies and national measures for rangeland management and pastoralism and share information on challenges, lessons learned and needs for further capacity development.*

14.180 Directed to the Scientific Council

The Scientific Council is requested, subject to the availability of external resources, to establish a multi-stakeholder Working Group on pastoralism and CMS-listed species, composed of stakeholders with experience and knowledge on managing rangelands, pastoralism and wildlife. The Working Group is asked to:

a) *analyze available information relevant to pastoralism, the impact of transhumance on biodiversity, well-being, and the risk of zoonotic disease emergence at the human/wildlife/livestock interface; and potential impacts on CMS-listed species, including existing models and best practice case studies and the compilation of responses received by the Secretariat under Decision 14.179; and*

b) *provide recommendations to support Parties in addressing the impact of pastoralism on CMS-listed species and in realizing the potential benefits to ecosystem health and resilience associated with the holistic management of rangelands and migratory species including soil restoration and climate change adaptation and mitigation.*

14.181 Directed to the Secretariat

The Secretariat shall, subject to the availability of external resources:

a) *request Parties to submit information on national measures for rangeland management and pastoralism and share information on challenges, lessons learned and needs for further capacity development;*

b) *support the Scientific Council in implementing Decision 14.180 (a);*

c) *convene at least one meeting of the Working Group established by the Scientific Council under Decision 14.180;*

d) *participate in and provide inputs to the 2026 International Year of Rangelands and Pastoralists Working Group on Rangelands and Biodiversity;*

e) *liaise with the United Nations Environment Programme, the United Nations Convention to Combat Desertification, the Food and Agriculture Organization, the United Nations Development Programme, the United Nations Educational, Scientific and Cultural Organization and its relevant Conventions, the International Union for the Conservation of Nature and other relevant international and regional organizations, multilateral environmental agreements, development agencies, donors, non-governmental organizations and academic institutions, as appropriate, to support the operation of the Working Group and to assist Parties in addressing the impacts of pastoralism on CMS-listed species such as through joint capacity-development activities; and*

f) *report to the Conference of the Parties at its 15th meeting on the recommendations of the Scientific Council and progress in implementing this decision.*

Activities of the Scientific Council

5. The Sessional Committee of the Scientific Council at its 7th meeting established the Intersessional Working Group (WG) on Pastoralism and CMS-listed Species and defined its Terms of Reference as follows:

The Working Group, consisting of experts identified in cooperation with the Secretariat, is to advise the Scientific Council on issues of pastoralism and migratory species, and to perform the following activities:

a) Analyse available information relevant to pastoralism, the impact of transhumance on biodiversity, well-being, and the risk of zoonotic disease emergence at the human/wildlife/livestock interface, building on existing CMS mandates; and potential impacts on CMS-listed species, including existing models and best practice case studies and the compilation of responses received by the Secretariat under Decision 14.181;

b) Provide recommendations to support Parties in addressing the impact of pastoralism on CMS-listed species and in realizing the potential benefits to ecosystem health and resilience associated with the holistic management of rangelands and migratory species including soil restoration and climate change adaptation and mitigation, in synergy with other conventions and international organizations.

Activities of the Secretariat

6. To implement Decision 14.181, the Secretariat prepared a questionnaire on Pastoralism and CMS-listed Species and shared it via Notification 021 with Parties. The Secretariat received only nine responses to the questionnaire. Due to the low response rate, the WG decided not to conduct an analysis of the responses at this stage.

7. The Secretariat further reached out to the organizations listed in Decision 14.181 (e), compiled a list of members of the WG, convened two online meetings on 4 September 2025 and 20 October 2025, and supported the work of the WG. At their first meeting, the WG members proposed modifying the Terms of Reference (see below) because they felt that the term 'transhumance' only refers to one specific form of pastoralism and is therefore too restrictive. They also proposed extending the scope of the WG to include non-zoonotic wildlife diseases:

The Working Group, consisting of experts identified in cooperation with the Secretariat, is to advise the Scientific Council on issues of pastoralism and migratory species, and to perform the following activities:

a) Analyse available information relevant to pastoralism, the impact of pastoralism ~~transhumance~~ on biodiversity, well-being of wildlife, and the risk of zoonotic and other disease emergence at the human/wildlife/livestock interface, building on existing CMS mandates; and potential impacts on CMS-listed species, including existing models and best practice case studies ~~and the compilation of responses received by the Secretariat under Decision 14.181;~~

b) Provide recommendations to support Parties in addressing the impact of pastoralism on CMS-listed species and in realizing the potential benefits to ecosystem health and resilience associated with the holistic management of rangelands and migratory species including soil restoration and climate change adaptation and mitigation, in synergy with other conventions and international organizations.

Discussion and analysis

8. The WG recognized the complexity of interactions between pastoralist land use and CMS-listed species, which includes multiple socioeconomic, environmental and

biological aspects and drivers. The WG members participated in discussions during their two online meetings and provided written inputs to the Secretariat. Due to a late start, the WG did not have sufficient time to fully achieve its mandate as outlined in paragraph 7. However, the Secretariat produced a summary of statements submitted by WG members and preliminary recommendations derived from these, which are subject to further elaboration. The WG agreed that, although CMS instruments for the conservation of birds and terrestrial mammals already include activities to address unsustainable pastoral practices and encourage the use of best practices, mainstreaming these mandates into relevant sectors and implementing them remains challenging without enhanced cross-sectoral collaboration and more specific guidance.

9. Reflecting the importance of pastoralism for conservation of CMS-listed species and the complexity of the issue, the draft Decisions in Annex 2 propose establishing a new, open-ended WG to develop guidance for implementing sustainable pastoralism. A summary of written statements provided by the current, intersessional WG members and preliminary recommendations derived from them – which can be regarded as a starting point for further work of the new WG – are provided in Annex 1 of this document.

Recommended actions

10. The Conference of the Parties is recommended to:

    a) adopt the draft Decisions contained in Annex 2 of this document; and

    b) delete Decisions 14.179–14.181.

ANNEX 1

SUMMARY OF CONTRIBUTIONS FROM THE SCIENTIFIC COUNCIL INTERSESSIONAL WORKING GROUP ON PASTORALISM AND CMS-LISTED SPECIES

Impact of pastoralism on biodiversity and CMS-listed species

1. Herbivory is a vital component of the nutrient and carbon cycle and, as such, an important process in the functioning of ecosystems. It improves soil fertility and structure, supports carbon sequestration, is important for seed dispersal, limits wildfires, and can increase biodiversity and shape landscapes. This function can be fulfilled by wild grazers if sufficient numbers of them are present, by moderate livestock grazing (e.g. through properly managed pastoralism using regenerative or mobile practices and other similar techniques), or by a combination of both wild and domestic grazers. Pastoralism is central to rural livelihoods and has become a key driver of ecosystem dynamics in many areas across the globe, providing livelihoods to billions of people and shaping landscapes that sustain both livestock and wildlife. Often, rangelands used by pastoralists are important habitats for migratory species.

2. Some CMS-listed species prefer short grass or mixed habitats found in landscapes with extensive livestock grazing. A mosaic of short and tall grasses maintained by extensive grazing is the preferred habitat of certain species of gazelles and wildebeest in Africa (Lankester and Davis, 2016), sociable lapwing, steppe eagles and the Indian bustard, to name a few examples. Pastoral wetlands, seasonal floodplains and grazing mosaics sustain vital habitats for waterbirds along flyways (African-Eurasian, East Asian–Australasian). Furthermore, scavengers, such as migratory vultures, rely on sufficient availability of carcasses of livestock or wild grazers for their survival (Arrondo et al., 2019; Aguilera-Alcala et al., 2022).

3. However, the intensification of grazing without taking into consideration wildlife needs reverses the positive effects on wildlife, soils, and climate change mitigation and adaptation. The short vegetation over large areas reduces habitat diversity; only a few species that can resist the widespread impact of grazing remain, while many other species are lost. It also leads to a loss of insects and other animals that depend on diverse and taller plants, impacting plant-pollinator interactions (Rakosy et al. 2022) and potentially increasing soil erosion, reducing moisture retention and releasing organic carbon from the soil. Such degraded habitats are of low value for migratory species, threatening their survival. The impact of intensive pasture use that does not take into account wildlife needs is of great concern for the conservation of CMS-listed terrestrial species, and measures to address such impacts are included in many CMS instruments (see ‘Background’ above).

4. In many areas, livestock greatly outnumber wildlife, while the disturbance and purposeful exclusion of wildlife from certain rangelands pushes wildlife into suboptimal habitats. This effect has been documented in the Indian Trans-Himalayan region and in Pamir Alai with respect to wild ungulates and snow leopards (Sathyakumar S., personal communication; Berger et al., 2013) and Asiatic wild ass (Khulan) in Mongolia (Kaczensky et al., 2007). Overstocking livestock has also had detrimental effects on migratory birds, such as the Indian bustard. The effects of grazing intensification differ depending on the climate and wild species composition (Maestre et al., 2022).

5. Livestock grazing can also impact migratory species in protected areas (e.g. Antoninova, 2020). In some countries, lands in protected areas are used – legally or illegally – for

livestock grazing. Grazing in protected areas at times of drought when fodder for both livestock and wildlife is scarce has a particularly negative impact. Such practices, if not properly managed, can lead to habitat degradation and direct adverse impacts on migratory species. It is therefore important to address the causes of illegal grazing in protected areas and, where allowed, establish appropriate grazing regimes in protected areas that do not harm wildlife and their habitats. Monfragüe National Park in Spain, for example, shows how traditional extensive pastoralism can be incorporated into biodiversity conservation planning in a national park, with benefits for both local livelihoods and wildlife, including CMS-listed Egyptian vultures (Yılmaz et al., 2019; Vulture Conservation Foundation, 2023)

6. To ensure that pastoralists are enabled to contribute to conservation of migratory species, it is crucial that land-use policies integrate traditional ecological knowledge and consider socioeconomic contexts, in order to provide opportunities for ensuring sustainable grazing management (Török et al., 2024). Pastoralists using costly sustainable practices may face pressure from perverse economic incentives, competition with industrialized food production systems, poor infrastructure and limited access to education and healthcare in rural areas. When the traditional adaptive capacity of pastoralists to develop sustainable solutions is overwhelmed by such external pressures, they may either abandon pastoralism altogether or diversify their management systems in ways that can, at times, lead to overgrazing and human–carnivore conflict (Yılmaz et al., 2019; Sonneveld et al., 2017; Fernandez-Giménez, 2000). Therefore, pastoral communities need to be supported through targeted policies that encourage sustainable practices that contribute to ecosystem health and conservation of migratory species.

<u>Impact of pastoralism on the well-being of wildlife, and the risk of zoonotic and other disease emergence at the human/wildlife/livestock interface</u>

7. In landscapes used by pastoralists and wildlife, human–wildlife conflicts can arise due to competition for resources. In many areas, persistent socioeconomic drivers lead to a preference for larger herds. As a result, livestock greatly outnumbers wild ungulates, reducing their forage base and drawing predators such as snow leopards and wolves towards domestic herds. This not only threatens wild ungulates directly but also fuels human–wildlife conflict (Mishra et al., 2004; Li et al., 2014). Such conflicts result in increased legal or illegal take of wild species, high stress levels for wildlife when, for example, being chased away from pastoralist lands – which, in practice, rarely offer a lasting solution to the underlying problems.

8. Spatial planning of both pasture use and wildlife conservation is necessary to facilitate peaceful coexistence, helping to avoid overlapping aggregations of livestock and wildlife, where possible. Excessive concentration of livestock around settlements, water points and roads leads to the loss of plant diversity, soil compaction and erosion, as shown in some areas of Central Asia (Kerven et al., 2011; Nkonya et al., 2015). A study by the RSPB of the impact of large herds of saiga antelope on agricultural lands in western Kazakhstan illustrates the relevance of this issue to migratory species. The study found that the highest levels of damage to pasture from saiga occurred in areas which were already impacted by high densities of livestock – e.g. where livestock and wildlife congregated around a few functional water points at times of drought (M. Bowe, personal communication). This eventually led to requests from local pastoralists to cull saiga. Key levers to be addressed in this case might be water and drought management. Therefore, spatial planning needs to consider context-specific, potential sources of conflict and be informed by data on habitat use and migrations of wildlife. Some tools based on spatial patterns of habitat use like those offered by the Global Initiative on Ungulate Migration

(S. Zuther, personal communication) are available and should be utilized to develop options for a peaceful coexistence between wildlife and livestock.

9. Conflicts often arise due to depredation by wild carnivores, including CMS-listed ones. For large carnivores, low prey density (often ungulates reliant on pasture), disease, and persecution by people are cited as the main causes of extinction, which are closely linked to rangeland use. Direct killing and the use of poison is often a response to the loss of livestock to large carnivores – both as a retaliatory and preventative measure. Measures to protect livestock, compensation schemes and, potentially, population control of non-threatened carnivores could help reduce such conflicts.

10. Developing effective solutions requires drawing on scientific evidence and engaging diverse stakeholders through inclusive consultations. Co-designed rangeland management strategies – such as participatory grazing systems that involve local communities and other relevant stakeholders – are key to addressing human–wildlife conflict.

<u>One Health</u>

11. For pastoralist communities, livestock health underpins livelihoods, food security and social identity. Diseases that lower herd productivity or increase mortality do not only reduce economic resilience but also destabilize access to nutrition and cultural traditions. The international community increasingly recognizes that animal health – particularly disease prevention and control – is fundamental to rural development.

12. Pastoral regions are often marginalized, including across agroecological, sociopolitical and economic dimensions. Veterinary services are frequently the only link between pastoralists and state institutions, and, as such, carry both political and economic significance (E. Denstedt, personal communication). Yet, services are often under-resourced, poorly adapted to mobile lifestyles, or constrained by weak governance and accountability. Delivery systems that restrict rather than facilitate mobility exacerbate vulnerability and undermine sustainable land management.

13. Livestock grazing increases exposure to parasites, highlighting a significant disease transmission risk from livestock to wild populations through shared pastures and water sources. In India, a higher prevalence of gastrointestinal parasites in Siberian ibex faecal samples from grazed areas compared to ungrazed areas suggests possible cross-transmission from livestock (Sathyakumar S., personal communication). In Kyrgyzstan, recent studies have documented outbreaks of brucellosis and echinococcosis in areas where livestock and wild ungulate grazing overlap (CAMP Alatoo, 2025). Migratory birds may spread or amplify pathogens at pastoral interfaces. Effective livestock disease control can yield benefits for wildlife conservation by reducing transmission risks and protecting ecosystem stability. Avian influenza outbreaks illustrate the dual vulnerability of and risk to domestic flocks, and the cascading impacts on wild bird populations.

14. Diseases such as peste des petits ruminants (PPR), foot-and-mouth disease and Rift Valley fever spread rapidly across landscapes and even borders. For pastoralists, these transboundary threats can devastate livelihoods. For conservation, they represent high-risk wildlife–livestock interfaces. Recent PPR outbreaks in Mongolia illustrate how pathogens crossing from livestock to wild ungulates (e.g., saiga antelope, ibex) can drive conservation crises, complicating eradication efforts and jeopardizing biodiversity (E. Denstedt, personal communication).

15. These findings emphasize that poorly managed pastoral systems undermine both biodiversity and public health at various scales. In contrast, well-managed grazing that

respects carrying capacity, uses rotational rest and supports mobility, helps maintain healthy vegetation mosaics, stable prey populations and lower disease risks, aligning with One Health approaches.

16. Supporting pastoralist-adapted animal health services and participatory rangeland governance aligns with CMS commitments by reducing disease risks, maintaining habitat connectivity, and enabling coexistence between pastoralists and migratory species.

Soil restoration and climate change mitigation and adaptation

17. Herbivory enhances soil nutrient and carbon storage by accelerating organic matter decomposition and returning nutrients to the soil, promoting plant growth and supporting dependent species. This process also aids carbon sequestration and climate mitigation. Where wild herbivores are absent, extensive pastoralism can perform similar ecological functions (Seid et al, 2016). Therefore, thorough land-use planning and extensive use of pastoralism is recommended to ensure sustainability (Kavana et al., 2021).

18. In many grasslands, global reviews show that well-managed livestock grazing increases soil organic carbon and microbial activity compared to both overgrazing and long-term exclusion (McSherry & Ritchie 2013; Abdalla et al. 2018; CAMP Alatoo 2019). As such, sustainable pastoralism plays an important ecological role in the maintenance and/or recovery of important ecosystem services, such as biomass production and carbon sequestration, functioning as a proven nature-based solution for soil restoration and climate change mitigation. Unsustainable grazing, however, is a key driver of rangeland degradation, undermining biodiversity, destabilizing soils, and reducing both plant and animal productivity (Petz et al., 2014; Maestre et al., 2022).

19. In the Sikkim region, for example, it has been shown that increased grazing pressure reduced microbial activity, soil fertility and moisture retention (S. Sathyakumar, personal communication). Research in Kyrgyzstan has shown that overgrazed sites had depleted carbon stocks, while regulated grazing and improved vegetation cover enhanced carbon retention and reduced erosion. Restoration measures such as rotational grazing, crop rotation and the use of green manures help rebuild soil fertility, store carbon and strengthen resilience to climate stress (CAMP Alatoo, 2019). These practices demonstrate that restoring soil health is an integral component of sustainable pasture management and directly supports biodiversity, livelihoods and climate change mitigation and adaptation.

Integrated rangeland and migratory species management and ecosystem health

20. Rangelands form the backbone of rural economies but, equally, provide critical habitats and migratory routes for wildlife. Participatory planning of pasture use offers a pathway to develop integrated rangeland and migratory species management. For example, Kyrgyzstan's law on Pastures, adopted in 2009, enabled communities, through the formation of pasture committees, to develop adaptive grazing plans together with scientists, based on carrying capacity, monitoring of pasture conditions and integration of wildlife needs (Isakov, 2013). This led to the development of practical sustainable land-use measures that benefit migratory species and other wildlife. Across Central Asia, emerging institutions such as Kyrgyzstan's Jayit committees and community-based pasture management groups in Tajikistan and Kazakhstan illustrate the potential to link pasture governance with biodiversity conservation (Isakov, 2013; Dörre & Borchardt, 2012).

21. Equitable community-based rangeland management was also shown to be effective for the restoration of lands and ecosystems vital for migratory species elsewhere – e.g., in Tunisia (see Fetoui et al., 2018).

22. Sustainable rangeland use should take into consideration ecosystem connectivity. Overgrazing, fencing and fragmented land use reduce forage availability and block migration pathways. Traditional mobile pastoralism conducted at levels sustainable for ecosystems might be an important contributor to the maintenance of ecosystem connectivity (Yılmaz et al., 2019).

23. One example of an integrative landscape-level approach is the establishment of the Ak Ilbirs ecological corridor in Kyrgyzstan, part of the Central Asian Mammals and Climate Adaptation Project funded by the International Climate Initiative of the German Government (CAMCA). This approach integrates scientific evidence, community involvement and multisector stakeholder consultations to agree on specific protection regimes (UNEP, 2025). It provides an opportunity to develop landscape-level plans that harmonize the needs of local land users with the requirements of conserving migratory species.

CONCLUSIONS

- Rangelands used by pastoralists are of key importance to migratory species of mammals and birds; their conversion to other land uses that are less suitable as wildlife habitat should be avoided.

- Soil restoration is essential for productivity and resilience, and requires sustainable grazing.

- In general, moderate and mobile livestock grazing is beneficial for migratory species and their habitats, while overgrazing threatens migratory species and undermines ecosystem health, public health and livelihoods.

- The impact of pastoralism on migratory species can be positive and negative. This depends on the characteristics of the specific ecosystem, where it occurs, the habitat use, the specific needs and characteristics of migratory species, and the socioeconomic conditions of local communities and the practices they apply. Taking into account all of these aspects when developing management interventions is essential for ensuring that both pastoralists and biodiversity benefit.

- In addition to controlling overgrazing, maintaining the connectivity of wildlife habitat is important for ensuring mobility of wild grazers and their access to pasture and water, and for avoiding aggregations of wildlife in less suitable habitats.

- Disease risks increase where livestock, wildlife and people overlap without proper management, but can be reduced through spatial planning and One Health approaches.

- Participatory planning and community engagement is essential to achieving sustainable pasture use and migratory species conservation.

- Ecological corridors provide a powerful tool for integrated landscape-level management, bringing together different land uses under a shared framework that balances conservation and development.

- This complex topic needs to be treated holistically through enhanced communication, coordination and cooperation among relevant sectors and stakeholders, at national and international levels.

PRELIMINARY RECOMMENDATIONS OF THE WORKING GROUP

1. Recommendations to CMS Parties and other stakeholders supporting CMS implementation

1.1 Improve communication, awareness and cooperation

a. In line with United Nations General Assembly Resolution 76/253, which designates 2026 as the International Year of Rangelands and Pastoralists, raise awareness of the importance of the conservation and sustainable use of rangelands and other ecosystems – notably, sustainable pastoralism – for the conservation of CMS-listed species, through communication, outreach, events and activities, collaboration, and educational materials and programmes.

b. Set up cross-sectoral working groups and provide guidance on pastoralism and CMS-listed species to relevant national ministries and authorities (e.g. agriculture, environment, rural development) with a view to integrating CMS provisions on pastoralism and CMS-listed species into national policies and reporting frameworks related to sustainable land use and migratory species conservation.

c. Promote the uptake of CMS mandates on pastoralism and migratory species within other relevant intergovernmental fora – such as the Food and Agriculture Organization (FAO), the United Nations Convention to Combat Desertification (UNCCD), the Convention on Biological Diversity (CBD), the United Nations Framework Convention on Climate Change (UNFCCC), the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), and the United Nations Environment Programme (UNEP) – to ensure policy coherence across agriculture, development, environment, biodiversity and climate agendas. This can be achieved through submitting resolutions and organizing side-events, with the support of members of the CMS Scientific Council Working Group on Pastoralism and CMS-listed Species.

d. Consider creating a coordination mechanism for organizations mentioned above and the CMS Secretariat to address the degradation of habitat used by CMS-listed species through information exchange, joint planning, and the use of synergies for enhanced implementation of aligned mandates.

e. Consider establishing ecological corridors within and across national boundaries through science-based and inclusive approaches, in consultation with pastoralists and without land alienation, to protect migratory routes and ensure sustainable land use in these areas through science-based and inclusive approaches.

f. Facilitate the seasonal movement of livestock (transhumance) and the mobility of nomadic pastoralists, ensuring access to traditional migration routes, as mobility is essential to the sustainability of pastoralism and the conservation of biodiversity, including CMS-listed species.

1.2 Collect data on migratory species for use in land-use planning

a. In cooperation with relevant institutions, collect data on:
   i. migratory species distribution and habitat use (e.g. using available tools such as the Global Atlas of Ungulate Migration), and
   ii. land use by pastoralists – differentiated from industrial or intensive livestock production systems – and potential and actual areas and drivers of human–wildlife conflict.

b. Utilize the data in land use and conservation planning to mitigate conflict and achieve benefits for both sustainable land use and conservation of migratory species.

c. Incorporate climate change projections into rangeland, water use and biodiversity planning to anticipate shifts in forage/water availability and migratory routes.

1.3 Include pastoralist communities in governance and management of pastures

a. Develop financial incentives to promote products from sustainable rangeland management, including branding and marketing, and remove perverse subsidies.

b. Involve pastoralist communities as key stakeholders in designing, governing and implementing sustainable pasture management, and in developing conservation measures for CMS-listed species in relevant areas.

c. Compile and utilize traditional ecological knowledge of pastoralists for conservation, restoration and monitoring actions that benefit CMS-listed species.

d. Incorporate pastoralist livelihoods into protected area planning, where applicable, through determinations of land use in protected areas which do not harm or displace wildlife.

e. Develop and implement activities to support livelihoods of local people that benefit the conservation of CMS-listed species and reduce dependence on livestock.

f. Promote evidence-based and participatory approaches for developing conflict-mitigation mechanisms, incorporating spatial planning, early warning, prevention, incentive schemes that encourage tolerance of wildlife impacts, and compensation for affected communities.

g. Identify, compile and promote ecologically sound practices for guard and herder dog management.

1.5 Incorporate needs of migratory species in planning and enacting sustainable land-use practices

a. Involve wildlife conservation specialists and authorities in developing rangeland management plans.

b. Promote and incentivize traditional mobile, rotational and extensive pastoralism practices in habitats of CMS-listed species using ecological indicators such as maintenance of habitat heterogeneity, vegetation regeneration, soil health, ecological connectivity, ecosystem resilience, carbon storage, nutrient cycling, and

provision of sufficient forage for CMS-listed grazers (birds and mammals), predators and scavengers.

c. Avoid the conversion of rangelands of high conservation importance for CMS-listed species and used by pastoralists to other land uses (e.g. afforestation in rangelands, or the expansion and intensification of agricultural areas, extractive activities, urbanization).

d. Consider the possibility of designating areas governed and/or managed by pastoralists that deliver significant positive biodiversity outcomes and that support the effective in situ conservation of CMS-listed species as OECMs.

1.6 One Health

a. Adapt veterinary and One Health services, including vaccination programmes (including for livestock and dogs), tailored to the mobility of pastoralists.

b. Couple livestock health surveillance with wildlife disease participatory monitoring to detect potential spillovers for CMS-listed species.

c. Ensure that global eradication campaigns (e.g., PPR GEP) integrate wildlife and migratory species expertise.

d. Prevent habitat fragmentation to ensure seasonal mobility of both livestock and migratory species.

e. Use CMS frameworks to link livestock health programmes with biodiversity commitments.

2. Recommendations to CMS Scientific Council

The Scientific Council is recommended to establish an open-ended Working Group on Pastoralism and CMS-listed Species to fulfil the following tasks until COP16, subject to availability of external resources:

a. to the extent possible, consider available maps of rangelands, pastoral land use and key habitats of selected CMS-listed species to identify any overlaps, and showcase positive and negative interactions and actions needed to support the coexistence of wildlife and domestic animals;

b. define information/data needed by decision makers in the agricultural and forestry sectors to ensure migratory species are taken into account in the planning and management of pastural land use;

c. develop guidelines for decision makers on sustainable pastoralism in migratory species' habitats based on a) and b) above, taking into account the recommendations contained in document UNEP/CMS/COP15/Doc.28.6, existing CMS mandates, the rights of pastoralists, cultural considerations, the negative impacts of unsustainable practices and positive impacts of sustainable pastoralism on migratory species, including wildlife health and One Health aspects; and

d. develop recommendations on how to mainstream the guidelines into land-use and conservation policies at national and international levels to achieve benefits for both conservation of migratory species and pastoralists.

3. Recommendations to CMS Secretariat

The CMS Secretariat is recommended to:

a. raise funds to support the Scientific Council and the Working Group on Pastoralism and CMS-listed Species in implementing the recommendations under 2 above;

b. consolidate information from various CMS mandates addressing pastoralism to create a communication product, and use it, in collaboration with relevant UN agencies and initiatives, to mainstream CMS mandates related to pastoralism in relevant fora; and

c. ensure CMS representation at the CBD, UNCCD and UNFCCC COPs in 2026, including, with the support of the Working Group on Pastoralism and CMS-listed Species, through side-events and other joint activities highlighting pastoralism and its relevance to the conservation of CMS-listed species.

4. Literature sources

Abdalla, M., Hastings A., Chadwick D., Jones D., Evans C., Jones M., Rees B. & Smith P. 2018. Critical review of the impacts of grazing intensity on soil organic carbon storage and other soil quality indicators in extensively managed grasslands. Agriculture, Ecosystems & Environment, 253: 62–81. https://doi.org/10.1016/j.agee.2017.10.023

Aguilera-Alcalá, N., Arrondo E., Pascual-Rico R., Morales-Reyes Z., Gil-Sánchez J. M., Donázar J. A., Moleón M. & Sánchez-Zapata J. A. 2022. The value of transhumance for biodiversity conservation: Vulture foraging in relation to livestock movements. AMBIO: A Journal of the Human Environment, 51: 1330–1342. https://doi.org/10.1007/s13280-021-01668-x

Antoninova, M., Gaylard A., Gibbons G., Moueix Ch., Chevillot J. & Froment J.M. 2020. Aerial survey of the regional WAP Complex in Benin, Burkina Faso and Niger 2019. Gnusletter, 37(2): 8.

Arrondo, E., Morales-Reyes Z., Moleón M., Cortés-Avizanda A., Donázar J. A. & Sánchez-Zapata J. A. 2019.Rewilding traditional grazing areas affects scavenger assemblages and carcass consumption patterns. Basic and Applied Ecology, 41: 56–66.

Berger, J., Buuveibaatar B. & Mishra C. 2013. Globalization of the Cashmere Market and the Decline of Large Mammals in Central Asia. Conservation Biology, 27(4): 679–689.

CAMP Alatoo. 2019. Soil Report on Carbon and Biomass. Bishkek.

CAMP Alatoo. 2025. Baseline Study in Issyk-Kul region. Bishkek.

Dörre, A. & Borchardt P. 2012. Changing Systems, Changing Effects—Pasture Utilization in the Post-Soviet Transition. Mountain Research and Development, 32(3): 313–323.

Fernandez-Giménez, M.E. 2000. The role of Mongolian nomadic pastoralists' ecological knowledge in rangeland management. Ecological Applications, 10: 1318–1326.

Fetoui, Frija A., Dhehibi B., Sghaier M. & Sghaier M. 2021. Prospects for stakeholder cooperation in effective implementation of enhanced rangeland restoration techniques in southern Tunisia. Rangeland Ecology and Management, 74(1): 9–20.

Isakov, A. 2013. Assessment of Land Condition in the Kyrgyz Republic with Respect to Grazing and Possible Development of a Quota System at the Local Government Level. UNU-LRT Final Project, Reykjavik.

Kaczensky, P., Enkhsaihan N., Ganbaatar O. & Walzer C. 2007. Identification of herder-wild equid conflicts in the Great Gobi B Strictly Protected Area in SW Mongolia. Exploration into the Biological Resources of Mongolia. Martin-Luther-Universität Halle-Wittenberg, Germany.

Kavana, P. Y., Mtengeti E. J., Sangeda A., Mahonge C., Fyumagwa R. & John B. 2021. How does agro-pastoralism affect forage and soil properties in western Serengeti, Tanzania? Tropical Grasslands – Forrajes Tropicales, 9(1): 120–133. https://doi.org/10.17138/TGFT(9)120-133

Kerven, C., Steimann B., Dear C. & Ashley L. 2011. Pastoralism and Farming in Central Asia's Mountains: A Research Review.

Lankester, F. & Davis A. 2016. Pastoralism and wildlife: historical and current perspectives in the East African rangelands of Kenya and Tanzania. Revue Scientifique et Technique (International Office of Epizootics), 35(2): 473–484.

Li, J., Yin H., Wang D., Jiagong Z. & Lu Z. 2014. Human–snow leopard conflicts in the Sanjiangyuan Region of the Tibetan Plateau. Biological Conservation, 166: 118–123.

Maestre, F. T., Le Bagousse-Pinguet Y., Delgado-Baquerizo M., Eldridge D. J., Saiz H., Berdugo M., Gozalo B., Ochoa V., Guirado E., García-Gómez M. et al. 2022. Grazing and ecosystem service delivery in global drylands. Science, 378(6622): 915–920. https://doi.org/10.1126/science.abq4062

McSherry, M. E. & Ritchie M. E. 2013. Effects of grazing on grassland soil carbon: A global review. Global Change Biology, 19(5): 1347–1357.

Mishra, C., Prins H.H.T. & Van Wieren S.E. 2004. Competition between domestic livestock and wild bharal Pseudois nayaur in the Indian Trans-Himalaya. Journal of Applied Ecology, 41(2): 344–354.

Nkonya, E., Mirzabaev A. & von Braun J. 2015. Economics of land degradation and improvement: An introduction and overview. In: E. Nkonya, A. Mirzabaev & J. von Braun (Eds.), Economics of Land Degradation and Improvement—A Global Assessment for Sustainable Development, pp. 1–14. Springer International Publishing. https://doi.org/10.1007/978-3-319-19168-3_1

Petz, K., Alkemade R., Bakkenes M., Schulp C. J. E., van der Velde M. & Leemans R. 2014. Mapping and modelling trade-offs and synergies between grazing intensity and ecosystem services in rangelands using global-scale datasets and models. Global Environmental Change, 29: 223–234. https://doi.org/10.1016/j.gloenvcha.2014.08.00

Rakosy, D., Motivans E., Ştefan V., Nowak A., Świerszcz S., Feldmann R. et al. 2022. Intensive grazing alters the diversity, composition and structure of plant–pollinator interaction networks in Central European grasslands. PLoS ONE, 17(3): e0263576. https://doi.org/10.1371/journal.pone.0263576

Seid, M. A., Kuhn N. J. & Fikre T. Z. 2016. The role of pastoralism in regulating ecosystem services. Revue Scientifique et Technique, 35(2): 435–444. https://doi.org/10.20506/rst.35.2.2534

Sonneveld, B., Wesenbeeck C., Keyzer M., Beyene F., Georgis K., Urbano F., Meroni M., Leo O., Yimer M. & Abdulatife M. 2017. Identifying hot spots of critical forage supply in dryland nomadic pastoralist areas: A case study for the Afar Region, Ethiopia. Land.

Török, P., Lindborg R., Eldridge D. & Pakeman R. 2024. Grazing effects on vegetation: Biodiversity, management, and restoration. Applied Vegetation Science, 27: e12794.

UNEP. 2025. Kyrgyz Republic unveils 800,000-hectare ecological corridor. Press Release.

Vulture Conservation Foundation. 2023. Egyptian Vultures wintering population in Cáceres. Retrieved October 18, 2023, from https://4vultures.org/blog/egyptian-vultures-wintering-population-in-caceres/

Yılmaz, E., Zogib L., Urivelarrea P. & Çağlayan S. D. 2019. Mobile pastoralism and protected areas: Conflict, collaboration and connectivity. PARKS – The International Journal of Protected Areas and Conservation, 25(1), May 2019. https://doi.org/10.2305/IUCN.CH.2019.PARKS-25-1EY.en

ANNEX 2

DRAFT DECISIONS

PASTORALISM

Directed to Parties

15.AA Parties are encouraged to:

a) observe, in line with United Nations General Assembly Resolution 76/253, the International Year of Rangelands and Pastoralism (IYRP) in 2026, and raise awareness of the importance of the conservation and sustainable use of rangelands for the conservation of CMS-listed species through communication, outreach, events and activities, collaboration, and educational materials and programmes;

b) support the implementation of the actions related to the conservation of CMS-listed species within the IYRP Global Action Plan endorsed by the IYRP Steering Committee; and

c) support the Scientific Council in implementing Decision 15.BB by providing information, data and resources.

Directed to the Scientific Council

15.BB The Scientific Council is requested to extend the mandate of the Working Group on Pastoralism and CMS-listed Species until such time as the Sessional Committee decides that its work is complete or an alternative arrangement is made. The Working group is asked to:

a) under the lead of a dedicated specialist and through at least one in-person meeting, subject to the availability of resources,

i. overlay, to the extent possible, maps of pastoral rangelands and key habitats of selected CMS-listed species to identify overlaps and showcase positive and negative interactions and the actions needed to support the coexistence of wildlife and domestic animals,

ii. define information/data needed by decision makers in the agricultural and forestry sectors to ensure migratory species are taken into account in the planning and management of pastoral land use,

iii. develop guidelines on sustainable pastoralism in migratory species' habitats for decision makers based on (i) and (ii), taking into account the recommendations contained in document UNEP/CMS/COP15/Doc.28.6, existing CMS mandates, the rights of pastoralists, cultural considerations, the negative impacts of unsustainable practices and positive impacts of sustainable pastoralism on migratory species, including wildlife health and One Health aspects, and

iv. develop recommendations on how to mainstream the guidelines into land-use and conservation policies at the national and international

levels to achieve benefits for both conservation of migratory species and pastoralists;

b) building on the above, prepare a draft Resolution on Pastoralism and Migratory Species for consideration by the Conference of the Parties at its 16th meeting.

Directed to the Secretariat

15.CC The Secretariat shall, subject to the availability of resources:

a) consolidate information from various CMS mandates related to interactions between pastoralism and CMS-listed species, and develop tailored communication products to convey this information to relevant sectors and organizations, with the aim of promoting implementation of CMS mandates;

b) liaise with the Secretariats of the Convention on Biological Diversity, the United Nations Convention to Combat Desertification and the United Nations Framework Convention on Climate Change, the Global Rewilding Alliance's Rangelands Working Group and the Global Grasslands and Savannahs Dialogue Platform, the International Year of Rangelands and Pastoralists Global Alliance and other partners to explore possibilities for cooperation, including through joint activities highlighting pastoralism and its relevance to the conservation of CMS-listed species, with the support of the Working Group established by the Scientific Council under Decision 15.BB; and

c) support the Scientific Council with the implementation of Decision 15.BB.