

PROJECTS REPORTING TEMPLATE FOR SAIGA-RELATED ACTIVITIES

This reporting template is designed to collate information on projects carried out by intergovernmental, international non-governmental and non-governmental organisations as well as academics and other experts working on any aspect of Saiga antelope conservation and sustainable use. Information will be compiled into a table for discussion at Saiga MOU meetings. The information will be used to: (1) monitor implementation of the [Memorandum of Understanding concerning Conservation, Restoration and Sustainable Use of the Saiga Antelope \(*Saiga spp.*\)](#) and the associated [Medium Term International Work Programme](#); (2) support exchange of information throughout the range and beyond, and assist the identification of necessary future actions; and (3) support the implementation of CITES Decisions 18.270-18.274 on Saiga antelope (*Saiga spp.*).

Please complete sections as appropriate and **return to the CMS Secretariat.**

E-mail: cms.secretariat@cms.int; Fax: (+49 228) 815 2449

Project: SAIGA – VETERINARY RESEARCH ON MORTALITIES AND THEIR CAUSES COORDINATED FROM THE ROYAL VETERINARY COLLEGE UK 2016-2020				
\zCountry:	China	<input type="checkbox"/>	Turkmenistan	<input type="checkbox"/>
	Kazakhstan	<input checked="" type="checkbox"/>	Uzbekistan	<input type="checkbox"/>
	Mongolia	<input checked="" type="checkbox"/>	International	<input checked="" type="checkbox"/>
	Russia	<input type="checkbox"/>		
Organisation / Contact details: Royal Veterinary College Hawkshead Lane North Mymms Hatfield Herts UK AL97TA +441707666396 rkock@rvc.ac.uk				
Duration of project:	from <u>2012</u> to <u>ongoing</u>			
Location(s) of main activity: Kazakhstan and Mongolia				
Sub-species:	<i>Saiga tatarica tatarica</i> *	<input checked="" type="checkbox"/>		
	<i>Saiga tatarica mongolica</i> *	<input checked="" type="checkbox"/>		
Areas of work:				
Anti-poaching	<input type="checkbox"/>	Habitat restoration	<input type="checkbox"/>	
Population monitoring	<input checked="" type="checkbox"/>	Protected area management	<input type="checkbox"/>	
Ecological research	<input checked="" type="checkbox"/>	Training & capacity-building	<input checked="" type="checkbox"/>	
Education and awareness	<input checked="" type="checkbox"/>	Law enforcement	<input type="checkbox"/>	
Alternative livelihoods	<input type="checkbox"/>	Trade issues	<input checked="" type="checkbox"/>	

* Note that CMS Parties have adopted Wilson, D.E. & Reeder, D.M. (2005) Mammal Species of the World. A taxonomic and geographic reference. Third edition. John Hopkins University Press, Baltimore, USA as taxonomic reference for terrestrial mammals through [Recommendation 9.4](#) where *S. t. tatarica* is referred to as *Saiga tatarica* and *S. t. mongolica* is referred to as *Saiga borealis*.

Socio-economic research <input type="checkbox"/>	Captive breeding <input type="checkbox"/>
Range mapping <input type="checkbox"/>	Reintroduction/release <input type="checkbox"/>
Habitat research <input type="checkbox"/>	
For each box ticked, please provide brief details in the project summary box below	
Project Summary: Causes of saiga mortality and population health - Royal Veterinary College (RVC) Coordinator	
<p>Planned Activities:</p> <p>Annual study of Kazakhstan Central and Western Saiga population during calving for mortality and causes of mortality and general health assessments Project research on Mongolian saiga mortality due to PPR infection and general disease ecology in the range amongst other wildlife susceptible species and livestock 2017-2020 Analysis at RVC and with collaborating institutions internationally of samples collected annually from live and dead saiga for investigative research on population health and in relation to mass mortality events and other causes of mortality and ill health.</p>	
<p>Achievements to date:</p> <p>Kazakhstan:</p> <ol style="list-style-type: none"> 1. Standard operating procedures and disease investigation protocols prepared and submitted for government processes and incorporation into mandated authorities and their agencies as recognised in the CMS work plans for saiga. 2. Mass Mortality Event (MME) field and laboratory research coordinated and implemented from RVC with various funding including; UKRI NERC emergency grant amongst other small funds. Proximate cause of confirmed and published with hypotheses on risk factors or drivers of the MME with ongoing investigations to fully understand the environmental and species risk factors/mechanisms for diseases expression causing major mortality in saiga. 3. Saiga population health – ongoing studies to develop indicators of saiga health from annual biological sampling and observation by Department of Pathobiology and Population Sciences RVC <p>Mongolia:</p> <ol style="list-style-type: none"> 1. Investigation of peste des petits ruminants virus disease ecology during and after epidemic in Mongolia 2017 affecting saiga and other small ruminants part of team led 2. Support ongoing ecological research and participatory epidemiology. <p>International:</p> <ol style="list-style-type: none"> 1. Support FAO OIE PPR Global Eradication Programme and Global Research Network on wildlife PPR with partners from Wildlife Conservation Society and United States Geological Survey Wildlife Health Center 2. Promote change in CITES legislation to enable sample movement from saiga and other endangered species during disease epidemics with IUCN Wildlife Health Specialist Group of the Species Survival Commission 	
Reports / Publications / Information material:	

1. NERC EIDC <https://catalogue.ceh.ac.uk/documents/50f39796-d0cd-4a3d-9179-0444b1e7d7fe> ; <https://doi.org/10.5285/8ad12782-e939-4834-830a-c89e503a298b>; <https://doi.org/10.5285/30cbfba7-f9a1-47d5-abdb-f2741041e487>; <https://doi.org/10.5285/912ea336-ac90-418f-be6a-7ae226e167e9> ; <https://doi.org/10.5285/6a5a9a2a-730b-49f7-9e42-2295040aee56> ;
2. **Kock, R. A.**, Orynbayev, M., Robinson, S., Zuther, S., Singh, N. J., **Beauvais, W.**, Morgan, E. R., Kerimbayev, A., Khomenko, S., **Martineau, H. M.**, Rystaeva, R., Omarova, Z., Wolfs, S., Hawotte, F., Radoux, J., & Milner-Gulland, E. J. (2018). Saigas on the brink: Multidisciplinary analysis of the factors influencing mass mortality events. *Science advances*, 4(1), eaao2314. <https://doi.org/10.1126/sciadv.aao2314>
3. Orynbayev, M., Sultankulova, K., Sansyzbay, A., Rystayeva, R., Shorayeva, K., Namet, A., Fereidouni, S., Ilgekbayeva, G., Barakbayev, K., Kopeyev, S., & **Kock, R.** (2019). Biological characterization of *Pasteurella multocida* present in the Saiga population. *BMC microbiology*, 19(1), 37. <https://doi.org/10.1186/s12866-019-1407-9>
4. Fereidouni, S., Freimanis, G. L., Orynbayev, M., Ribeca, P., Flannery, J., King, D. P., Zuther, S., Beer, M., Höper, D., Kydyrmanov, A., Karamendin, K., & **Kock, R.** (2019). Mass Die-Off of Saiga Antelopes, Kazakhstan, 2015. *Emerging infectious diseases*, 25(6), 1169–1176. <https://doi.org/10.3201/eid2506.180990>
5. Orynbayev, M. B., **Beauvais, W.**, Sansyzbay, A. R., Rystaeva, R. A., Sultankulova, K. T., Kerimbaev, A. A., Kospanova, M. N., & **Kock, R. A.** (2016). Seroprevalence of infectious diseases in saiga antelope (*Saiga tatarica tatarica*) in Kazakhstan 2012–2014. *Preventive veterinary medicine*, 127, 100–104. <https://doi.org/10.1016/j.prevetmed.2016.03.016>
6. Robinson, S., Milner-Gulland, E., Grachev, Y., Zuther, S., Orynbaev, M., Lushchekina, A., Morgan, E., **Beauvais, W.**, Singh, N., Khomenko, S., Cammack, R., & **Kock, R.** (2019). Opportunistic bacteria and mass mortality in ungulates: lessons from an extreme event. *Ecosphere*, 10(6), Article: e02671. <https://doi.org/10.1002/ecs2.2671>
7. **Kock, R. A.**, Orynbayev, M. B., Sultankulova, K. T., Stochkov, V. M., Omarova, Z. D., Shalgynbayev, E. K., Rametov, N. M., Sansyzbay, A. R., & Parida, S. (2015). Detection and Genetic Characterization of Lineage IV Peste Des Petits Ruminant Virus in Kazakhstan. *Transboundary and emerging diseases*, 62(5), 470–479. <https://doi.org/10.1111/tbed.12398>
8. Pruvot, M., Fine, A. E., Hollinger, C., Strindberg, S., Damdinjav, B., Buuveibaatar, B., Chimeddorj, B., Bayandonoi, G., Khishgee, B., Sandag, B., Narmandakh, J., Jargalsaikhan, T., Bataa, B., McAloose, D., Shatar, M., Basan, G., Mahapatra, M., Selvaraj, M., Parida, S., Njeumi, F., **Kock R.**, Shiilegdamba, E. (2020). Outbreak of Peste des Petits Ruminants among Critically Endangered Mongolian Saiga and Other Wild Ungulates, Mongolia, 2016–2017. *Emerging infectious diseases*, 26(1), 51–62. <https://doi.org/10.3201/eid2601.181998>
9. Fine, A. E., Pruvot, M., **Benfield, C.**, Caron, A., Cattoli, G., Chardonnet, P., Dioli, M., Dulu, T., Gilbert, M., **Kock, R.**, Lubroth, J., Mariner, J. C., Ostrowski, S., Parida, S., Fereidouni, S., Shiilegdamba, E., Sleeman, J. M., Schulz, C., Soula, J. J., Van der Stede, Y., ... Meeting Participants (2020). Eradication of Peste des Petits Ruminants Virus and the Wildlife-Livestock Interface. *Frontiers in veterinary science*, 7, 50. <https://doi.org/10.3389/fvets.2020.00050>
10. CITES in sickness and in health EcoHealth DOI: 10.1007/s10393-016-1154-4
11. Contributions to resolution CITES CoP 18 on diagnostic specimens

Conf. 11.15
(Rev. CoP18)*

**Non-commercial loan,
donation or exchange of
museum, herbarium, diagnostic
and forensic research specimens**

RECALLING Resolutions Conf. 1.4 and Conf. 2.14, adopted by the Conference of the Parties at its first and second meetings (Bern, 1978; San José, 1979);

CONSIDERING that Article VII, paragraph 6, of the Convention provides an exemption from the provisions relating to regulation of trade in specimens of species included in Appendices I, II and III for "non-commercial loan, donation or exchange between scientists or scientific institutions registered by a Management Authority of their State, of herbarium specimens, other preserved, dried or embedded museum specimens, and live plant material which carry a label issued or approved by a Management Authority";

RECOGNIZING that this exemption should apply to animal (non-live) and plant specimens, including forensic research specimens, that are legally acquired by a registered scientific institution and (re-)exported or imported under the authority of this institution;

CONSIDERING that museum needs for research specimens can have adverse impact on small populations of rare animals and plants;

RECALLING the recommendations of the first meeting of the Conference of the Parties (Bern, 1978);

THE CONFERENCE OF THE PARTIES TO THE CONVENTION

1. ENCOURAGES Parties to register their scientific institutions to facilitate scientific exchange of specimens needed to conduct taxonomic and species-conservation research, and to conduct wildlife forensic research;
2. URGES Parties to contact scientists and scientific institutions in the territory under their jurisdiction to facilitate greater understanding of the scientific exchange provisions of Article VII, paragraph 6, on the non-commercial loan, donation or exchange of scientific specimens;
3. RECOMMENDS that:
 - a) Parties take every opportunity within the scope of the Convention to encourage scientific and forensic research on wild fauna and flora, where this may be of use in conserving species that are threatened with extinction or that may become so;
 - b) in order to reduce the potential impact of research, the Parties encourage their natural history museums, herbaria and forensic research laboratories to inventory their holdings of rare and endangered species and make that information widely available to the Parties and the research community, as appropriate. These inventories will allow researchers to efficiently borrow specimens for study or use forensic information contained in reference databases;
 - c) addenda should be added to the inventories as specimens become available. Scientific and Management Authorities of the Parties can use the information in determining whether further collecting of some rare species may be justifiable, or whether the need already can be met by borrowing specimens from other museums or using forensic information provided by forensic research laboratories;
 - d) Parties urge their museums, herbaria and forensic research laboratories to undertake such inventories and make such information publicly available;
 - e) Registered institutions should be subject to renewal at the discretion of the registering management authority to ensure that only current, valid institutions are eligible for scientific exchange; and

* Amended at the 12th and 18th meetings of the Conference of the Parties.

**Conf. 12.3
(Rev. CoP18)***

Permits and certificates

RECALLING Resolution Conf. 8.16, adopted by the Conference of the Parties at its eighth meeting (Kyoto, 1992);

RECALLING Resolution Conf. 10.2 (Rev.), adopted by the Conference of the Parties at its 10th meeting (Harare, 1997) and amended at its 11th meeting (Gigiri, 2000);

RECALLING the provisions of Article VI of the Convention regarding permits and certificates;

OBSERVING that false and invalid permits and certificates are used more and more often for fraudulent purposes and that appropriate measures are needed to prevent such documents from being accepted;

RECOGNIZING the need for Parties to be particularly vigilant regarding the issuance of permits and certificates for very valuable specimens and specimens of species included in Appendix I;

RECOGNIZING that permits and certificates may be issued in paper, electronic or both formats;

RECOGNIZING that there is no obligation on Parties to issue permits or certificates in electronic formats;

RECOGNIZING that Parties issuing permits or certificates in electronic formats will need to issue them also in paper format unless specific agreement has been reached with other affected Parties;

CONSIDERING the need to improve the standardization of permits and certificates with international norms and standards;

NOTING that the [CITES electronic permitting toolkit](#) provides guidance to Parties on common internationally recognized information exchange formats, protocols and standards, and electronic signatures;

RECOGNIZING the need to adopt the principles outlined in the *CITES electronic permitting toolkit* to facilitate the exchange of information among national Management Authorities;

RECOGNIZING that the *CITES electronic permitting toolkit* will require updates and revisions to reflect the ongoing development of international standards;

RECOGNIZING that the issuance of CITES permits and certificates serves as a certification scheme for assuring that trade is not detrimental to the survival of species included in the Appendices;

CONSCIOUS that the data carried on permits and certificates must supply maximum information, as much for export as for import, to allow verification of the conformity between the specimens and the document;

RECOGNIZING that the Convention provides no guidance about the acceptability of an export permit whose period of validity expires after the specimens have been exported but before the permit has been presented for import purposes;

CONSIDERING that no provision exists to establish the maximum time validity of import permits, and that it is necessary to establish a time validity appropriate to guarantee compliance with the provisions of Article III, paragraph 3, of the Convention;

RECALLING that Articles III, IV and V of the Convention provide that trade in any specimen of a species included in its Appendices requires the prior grant and presentation of the relevant document;

* Amended at the 13th, 14th and 15th, 16th, 17th and 18th meetings of the Conference of the Parties.

Communications general

Media (with link if available)	Type
Lovenature.com	Article
CNN	Article
Express.kz	Article
Kazakh gvt	Article
IISD	Article
PHYS.org	Article
Aljazeera 1	Article
Aljazeera 2	Article
Houston Chronicle	Article
International Business Times	Article
IFL Science	Article
Notre planete	Article
New York Times	Article
Oxford Biology Alumnus Newsletter	Article

Royal Veterinary College	Article
Saiga Conservation Alliance 1	Article
Saiga Conservation Alliance 2	Article
Saiga Conservation Alliance 3	Article
Saiga Conservation Alliance 4	Article
Saiga Conservation Alliance 5	Article
Saiga Conservation Alliance 6	Article
Business Insider UK 1	Article
Business Insider UK 2	Article
Frankfurt Zoological Society	Article
Mongabay	Article
The Guardian 1	Article
The Guardian 2	Article
DW 1	Article & clip
DW 2	Clip
DW 3	Clip
DW 4	Clip
DW 5	Clip
Aljazeera 3	Clip
University of Oxford, Department of Zoology (November 2014)	Talk
University of Swansea, Department of Biology (April 2015)	Talk
University of Glasgow, School of Life Sciences (May 2015)	Talk
http://www.cms.int/sites/default/files/document/unep-cms_saiga%20mos3_mr_annex%207_technical%20meeting%20reports_eng.pdf	Proceedings summary reports
Veterinary Research Club UK at Royal Veterinary College (December 2015)	Talk
University of Roehampton, Department of Biology (Jan 2016)	Talk
Texas A&M University, Institute of Infectious Animal Diseases, Annual Meeting Dallas (April 2016)	Talk
University of Bangor, School of Environment and Natural Resources (April 2016)	Talk
Royal Anthropological Institute Anthropology, Weather and Climate Change Conference at the British Museum (May 2016)	Talk
San Diego Zoo Global Conservation Unit (August 2016)	Talk
Wildlife Disease Association, Ithaca Meeting - Al Franzmann Memorial Lecture (August 2016)	Talk
Explaining the Saiga antelope dieoffs, Swedish University of Agricultural Sciences, Umeå (August 2016)	Talk
Explaining the Saiga antelope dieoffs, Swedish Association for Hunting and Wildlife Management (May 2016)	Talk
11 tweets from the SCA on the follow-up research-re-tweeted multiple times	Tweets
Various tweets from DW media as they released each clip-retweeted multiple times	Tweets
Press release issued by ACBK, SCA, CMS	Press release

<p>3. Collaborators: Kazakhstan: Association for Conservation of Biodiversity Kazakhstan (ACBK), Biosafety Institute Gvardeskiy (RIBSP) and Veterinary Services (Astana Veterinary Reference Laboratory) in Kazakhstan and with International Collaborators at University of Oxford, Department of Zoology; University of Bristol, Department of Biology; Queens University Belfast UK; University of Calgary Canada; Cornell University USA; Pirbright Institute UK.; UNEP CMS; FAO OIE PPR secretariat</p> <p>Mongolia: Wildlife Conservation Society in Mongolia Veterinary Department and Central Veterinary Laboratories SCVL; FAO OIE PPR secretariat and FAO OIE Crisis Management Committee</p>
<p>Budget available: £500,000</p>
<p>Current sponsors: NCEAS, RVC</p>
<p>Past sponsors: UKRI NERC; Morris Animal Foundation, NCEAS, Fauna and Flora International, Frankfurt Zoological Society, FAO OIE CMC, UNEP CMS, Pirbright Institute, RVC</p>
<p>Information contributed by: Prof Richard Kock Prof Wildlife Health and Emerging Diseases Royal Veterinary College London rkock@rvc.ac.uk</p>
<p>Date report submitted: _____ 06/10/2020</p>
<p>Other:</p>