

## CAMBODIA RESPONSE TO CITES AC33

**Subject: Review of trade in animal specimens reported as produced in captivity**

**[Resolution Conf.17.7 (Rev.CoP18)]**

**Ref: CITES Secretariat's letter No. DR/KG/CB/2024/KH, Geneva 27 August 2024**

First and foremost, Cambodia would like to extend its sincere appreciation to the CITES Animals Committee, and especially to Mr. Mathias Lortscher, Chair of the Animals Committee, for their support and cooperation.

Cambodia understands that based on document AC33 Doc. 15.2 and the written responses provided by Cambodia in Annex 2 of document AC33 Doc. 15.2 and orally at AC33, the Animals Committee decided to retain *Macacafascicularis* from Cambodia in review. Cambodia also understands that the Secretariat acknowledges that Cambodia has provided detailed clarifications orally on the high reproduction rates of *M fascicularis* achieved by the breeding facilities in question.

Cambodia provides this supplemental response to the latest request for Cambodia to provide clarifications in written form to the Secretariat, so that they may be reviewed by the Animals Committee prior to the 78th meeting of the Standing Committee, as following:

**Common Name:** Long-tailed macaque (Scientific Name: *Macacafascicularis*), LTM

**Laboratories Name:** Cynomolgus monkey

**Cambodia Classification:** Common Species (Forestry Law 2022, Declaration (Prakas) N.020, dated 25 January 2007, on Cambodia's Wildlife Classification)

**CITES Appendix:** II

### ECOLOGY AND HABITATS:

The LTM are widely distributed and, although some island endemic subspecies may have low populations, the global population contains millions of adults, with stable or increasing populations (Nuttall et al. 2021; Brotcome et al. 2021). The LTM are an introduced feral animal in various parts of the world. They thrive in secondary habitats with densities at least twice the long-term norm (Moore et al. 2023). As a result, the population is higher in secondary forests and disturbed areas, compared to primary forests (Kemp and Burnett 2003). They are more opportunistic and abundant in disturbed areas, which results in the species becoming a nuisance and frequently dangerous. The species is listed by IUCN as a nuisance species (IUCN 2023). These life history characteristics serve as a further buffer against species extinction risks.

The LTM is one of the most abundant and resilient primates in nature. This is evident by the excessive numbers of LTMs which cause agricultural damage, endangering the livelihood of people and tourists (including frequent biting and attacking). Consequently, this species must be managed and controlled. Human-macaque conflicts in urban areas in Cambodia, such as in tourism hot-spots like Angkor Wat and elsewhere within range States are increasing. Government wildlife agencies are required and must respond to these situations to manage the macaques.

The LTM is a highly adaptive, "ecologically diverse" species (Kemp and Burnett 2003), and able to live in various habitats, including mangroves, swamps, and agricultural lands near forests (Eudey *et al.*, 2020).

## REPRODUCTION:

- A) **In natural and wild conditions:** LTMs reach sexual maturity at the age of four years for females and six years for males. The females at higher rank of hierarchy will reach sexual maturity before the lower-ranking females. The species lives in a colony comprising several males and females, led by an alpha male. The number of females in the colony is always greater than males. This social organisation system allows this species to have multiple mating partners (polygynandrous/promiscuous mating) (Maharadatunkamsi *et al.*, 2020).
- B) **In captivity or in a controlled farm environment:** female LTMs reach sexual maturity at the age of 3.5-4 years old, while the males reach it at 4-6 years old.
- C) The females have a gestation period of approximately **165 days** with an average of one baby per pregnancy. In **natural and wild conditions**, the weaning period is **420 days**, while at a farm in a controlled environment the weaning period can be as short as **100-120 days (0.70 - 0.80 kg/baby) to increase productivity.**

## INCREASED REPRODUCTION RATES MAY BE ACHIEVED BY THE BREEDING FARMS:

The demand for Cambodia's captive bred LTMs, which were used to accelerate the discovery of Covid-19 vaccines and lifesaving therapeutics, increased during the recent pandemic. Cambodia breeding farms employed techniques and modalities to optimize conditions for the breeding of LTMs resulting in an increase of up to 3 offspring in 2 years per breeding female. These actions can significantly increase breeding rates of LTM raised in captivity:

- The cages have optimal facilities, well controlled environments, and clean sanitary conditions;
- The breeding groups of monkeys are provided abundant nutrition and food supply;
- Group breeding consistent with wild conditions: the ratio of male to female is typically around 1:12, or about 2 to 3 male monkeys, and 28 to 32 female monkeys are placed in two adjoining pens for group breeding. The pens are 80-90 cubic meters (pens are joined with two holes to allow the LTMs to go from pen to pen, with each of the pens having dimension of at least 3m x 6 m x 2.5 m);
- Timely observation to determine pregnancy and animal conditions and then to isolate the pregnant females reduce abortion rate and promote readiness for birth;
- Timely regrouping of lower ranking and lower productive female breeders, as well as introduction of new male breeders into breeding groups with extra food supply and toys to increase animal environment enrichment, prevent fighting, and obtain a more rapid harmony in the living environment;
- Replacing non/low-productive male breeders or any male that is not willing to have sexual relationships with most female breeders in the group;
- Introducing 2 or more male breeders per breeding group to achieve higher pregnancy rate per group;
- Timely implementation of lactation: the lactation time of infant monkeys is set to be carried out around 100-120 days of age, until the infant monkeys can independently eat solid foods;
- Intensive care and feedings for newly weaned babies resulting in higher adaption and survival after weaning; and,

- Providing for a high number of available young female breeders (aged from 4-10 years old), which naturally have a higher productivity rate.

In the 2017 documents submitted to CITES, **Facility #1**, in the table below, had 22 open corrals with upwards of 500 breeders and offspring per corral. The quantities of LTMs in these corrals were not included in the submitted 2017 numbers, as no exporting was taking place from these corrals. By 2020, these breeders and offspring were being moved to new housing and being added to the population numbers. The corrals were demolished and removed.

The apparent high birth rate in the June 2023 inspection record is a result of using 2022 birth numbers divided by the June 2023 breeding stock data. The female breeder stock population of this site in December 2022 was 35,076. Due to the allegations and the unilateral decision by the U.S. government to stop importing NHPs from Cambodia, the site management significantly reduced the breeding stock to minimize the risk of over population at farm site. Meanwhile, the company has been constructing a new site, planning for the growth in population.

Cambodia suggests that CITES modify the existing data collection form to include last year's average breeding stock numbers. This will prevent improper (misleading) interpretation of birth rate, when breeding stocks change, (e.g., increase in breeding stock over last year, will give a false reduction in birth rate number):

Il,1 yuu!!!!tJIII-.1s *p,; :.*** Yes \M1D		
Wh.n .1,J )"" >1,111 hrc J1r f :!1111:!.i.}1111111n.kr 1111 r		
!:::lr; :::  s s* fn,mPhnomPcnh 144 P**		
ihua lu&d!C, pu ynr!_.i.,,: _____		
of&pnyr•111:11 in h11ert.lu1,h' _____		
T<WU<u! "!!u p*****U! ycm		
AUil,i,' IHHE▶J>IN(i STUC L;	h.:.lily	l"fic<hr c<IIII\
	Inl,wn1,1111m	(>./wrr pm<IM.-)
N.u.,t.,, " " Jult,1,inm1'	./ .11i	8.77
Number of males pJscn1•	L 4. 3, _	-'HI
umNr ol females'	Z<.:?41	'-2-I
\\!1111' • ,f fcmalN l'FCcJ each year"	0"-	
Whll100 )ou rc(J adult an1111 b'io.u.me cake Mib-.Ifil( :4 :. :./ Lq! f•"II Ft1:J!		

Note: This information was extracted from [http://k11.s.org/s11C\\$.ld1.1111ul/files/dl\\*m111c111siE-AC33-15-\(12.txt](http://k11.s.org/s11C$.ld1.1111ul/files/dl*m111c111siE-AC33-15-(12.txt) page#18

**Facility #6\***

Description	2021	2022	2023
Female breeders	30,232	35,076	21,833
Babies born	36,190	35,513	14,134
Ratio	1.20	1.01	0.65

**Facility #1\***

Description	2021	2022	2023
Female breeders (includes transfers from corrals)	11,293	17,745	15,371
Babies born (doesn't include transfers from corrals)	6,283	13,632	9,160
Ratio	0.56	0.77	0.60

**Facility #2\***

Description	2021	2022	2023
Female breeders	2,402	2,724	3,113
Babies borns	3,071	2,838	1,991
Ratio	1.28	1.04	0.64

**Facility #3\***

Description	2021	2022	2023
Female breeders	2,327	2,150	1,876
Babies borns	2,416	2,208	1,592
Ratio	1.04	1.03	0.85

**Note: The facility #3, No export**

**Facility #4\***

Description	2021	2022	2023
Female breeders	5,956	6,023	5,110
Babies borns	1,899	1,821	1,518
Ratio	0.32	0.30	0.30

\*numbers in tables are full year and breeders are snapshots of the day reported and counted (at the end of each respective year)

**SUMMARY:**

Cambodia complies globally with all national and international laws, regulations, and required procedures, especially with the CITES Convention and International Health Regulation. Cambodia believes in the importance of conservation. If we care about the livelihood (life) of people and humankind, we must take care of nature, wildlife, and the environment.

Cambodia will continue to export its captive-bred LTMs for bio-pharmaceutical research purposes and for advancing the development of lifesaving vaccines and medicines. Cambodia believes this follows the principles of moral responsibility, humanitarianism, equity, and equality, especially in helping provide affordable vaccines and medicines to billions of people.

Cambodia thanks the Animals Committee for its review and involvement in these matters. Cambodia believes responses and evidence provided above as well as previously fully address questions posed by the Animals Committee regarding this matter. Cambodia respectfully requests that the Animals Committee allows Cambodia to exit from the Review of trade in animal specimens reported as produced in captivity.

## **Literature Cited:**

- Brotcorne, F., Wandia, I. N., Rompis, A., Soma, I., Suartha, I. N., and Huynen, M. 2011. Box 6.1 Recent demographic and behavioral data of *Macaca fascicularis* at Padangtegal, Bali, Indonesia. In *Monkeys on the Edge Ecology and Management of Long-tailed Macaques and Their Interface with Humans*, pp. 180-182. Ed. by M. D. Gumert, A. Fuentes, and L. Jones-Engel. Cambridge University Press, Cambridge, U.K.
- Eudey, Ardith A. 2008. The Crab-Eating Macaque (*Macaca fascicularis*): Widespread and Rapidly Declining. *Primate Conservation* 23(1), 129-132. Available at <https://doi.org/10.1896/052.023.0118>.
- Fooden, J. 1995. Systematic review of Southeast Asia long-tail macaques, *Macaca fascicularis* Raffles (1821). *Fieldiana Zoology* 64: 1-44.
- Hansen, M.F., Ang, A., Trinh, T.T.H., Sy, E., Paramasivam, S., Ahmed, T., Dimalibot, J., Jones-Engel, L., Ruppert, N., Griffioen, C., Lwin, N., Phiapalath, P., Gray, R., Kite, S., Doak, N., Nijman, V., Fuentes, A. & Gumert, M.D. 2022. *Macaca fascicularis*. 2022. The IUCN Red List of Threatened Species 2022: e.T12551A221666136. Available at <https://dx.doi.org/10.2305/IUCN.UK.2022-2.RLTS.T12551A221666136.en>.
- IUCN. 2023. Global Invasive Species Database: 100 of the Worst Invasive Alien Species. Available at [http://www.iucngisd.org/gisd/100\\_worst.php](http://www.iucngisd.org/gisd/100_worst.php)
- IUCN. 2024. Response to IUCN Petition Challenging Listing Status of Long-tailed Macaque. Available from IUCN.
- Jenkins, RWG. (2023) Letter to IUCN regarding LONG-TAILED MACAQUE (*Macaca fascicularis*) - RED LIST ASSESSMENT. Dated 22 June 2023.
- Kemp, N.J. & Burnett, J.B. 2007. A non-native primate (*Macaca fascicularis*) in Papua: implications for biodiversity. *The Ecology of Papua: Part II*, pp. 1348-1364. Periplus Editions Ltd., Singapore.
- National Association for Biomedical Research (NABR). 2023. Response to comments received during informal discussions challenging the listing of long-tailed macaque (*Macaca fascicularis*).
- Normile, D. 2023. Is the world's most popular lab monkey vanishing-or flourishing? *Science*. Available at <https://www.science.org/content/article/is-a-widely-used-lab-monkey-vanishing-or-flourishing>.
- Nuttall, M.N., Griffin, O., Fewster, R. M., McGowan, F. J. K., Abernethy, K., O'Kelly, H., Nut, M., Sot, V., Bunnefeld. 2021. Long-term monitoring of wildlife populations for protected area management in Southeast Asia. *Conservation Science and Practice* 4(2): e614.
- PERHILITAN. 2018. Laporan Ketahunan (Annual Report) 2018. Department of Wildlife and National Parks Peninsular Malaysia. Available at: <https://www.wilcllifo.gov.my/images/document/pe11crbitan/lnpora11tnhunah/LT2018.pdf>