



Tackling the NSAIDs threat to vultures: new CMS and World Organisation for Animal Health initiative

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CONVENTION ON MIGRATORY SPECIES

COP15

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15th Meeting of the Conference of the Parties (COP15), 23-29 March 2026, Campo Grande, Brazil





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Indian vulture
Gyps indicus



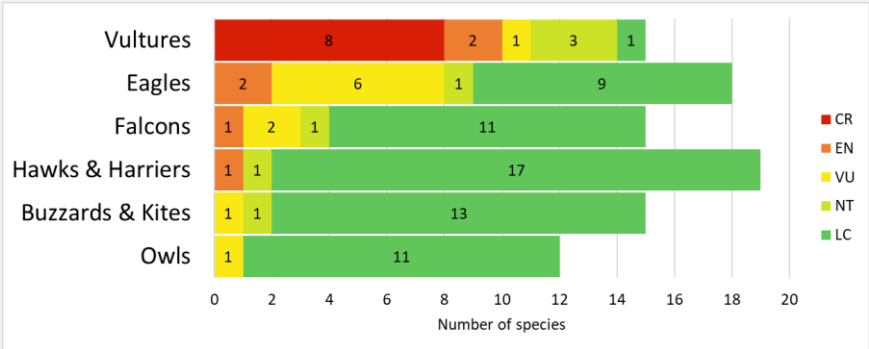
Slender-billed vulture
Gyps tenuirostris



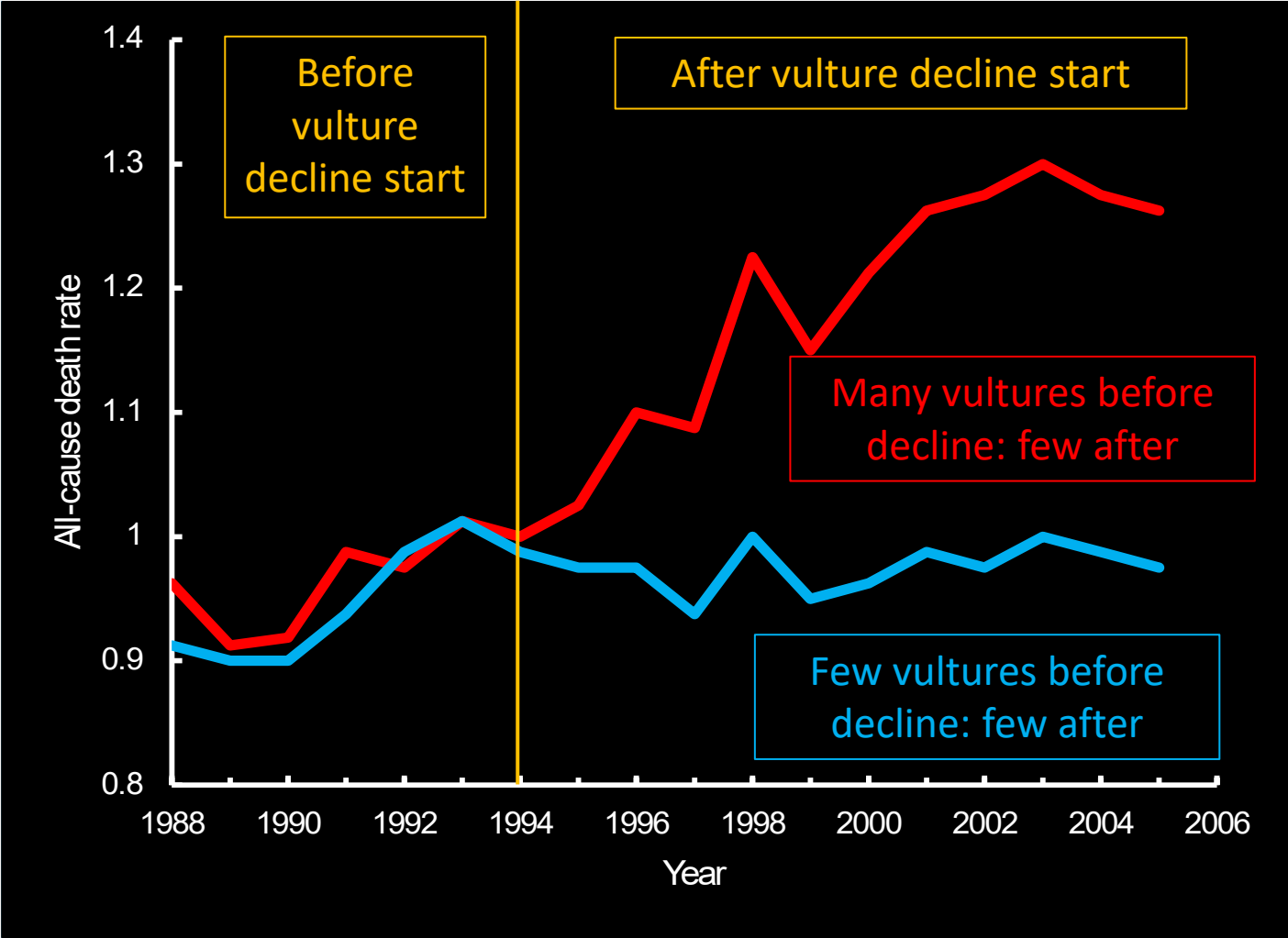
White-rumped vulture
Gyps bengalensis



All listed by IUCN as
Critically Endangered



All-cause annual human death rates in parts of India with many vultures and with few vultures before the decline



Frank & Sudarshan (2024) *American Economic Review* 114: 3007–3040.

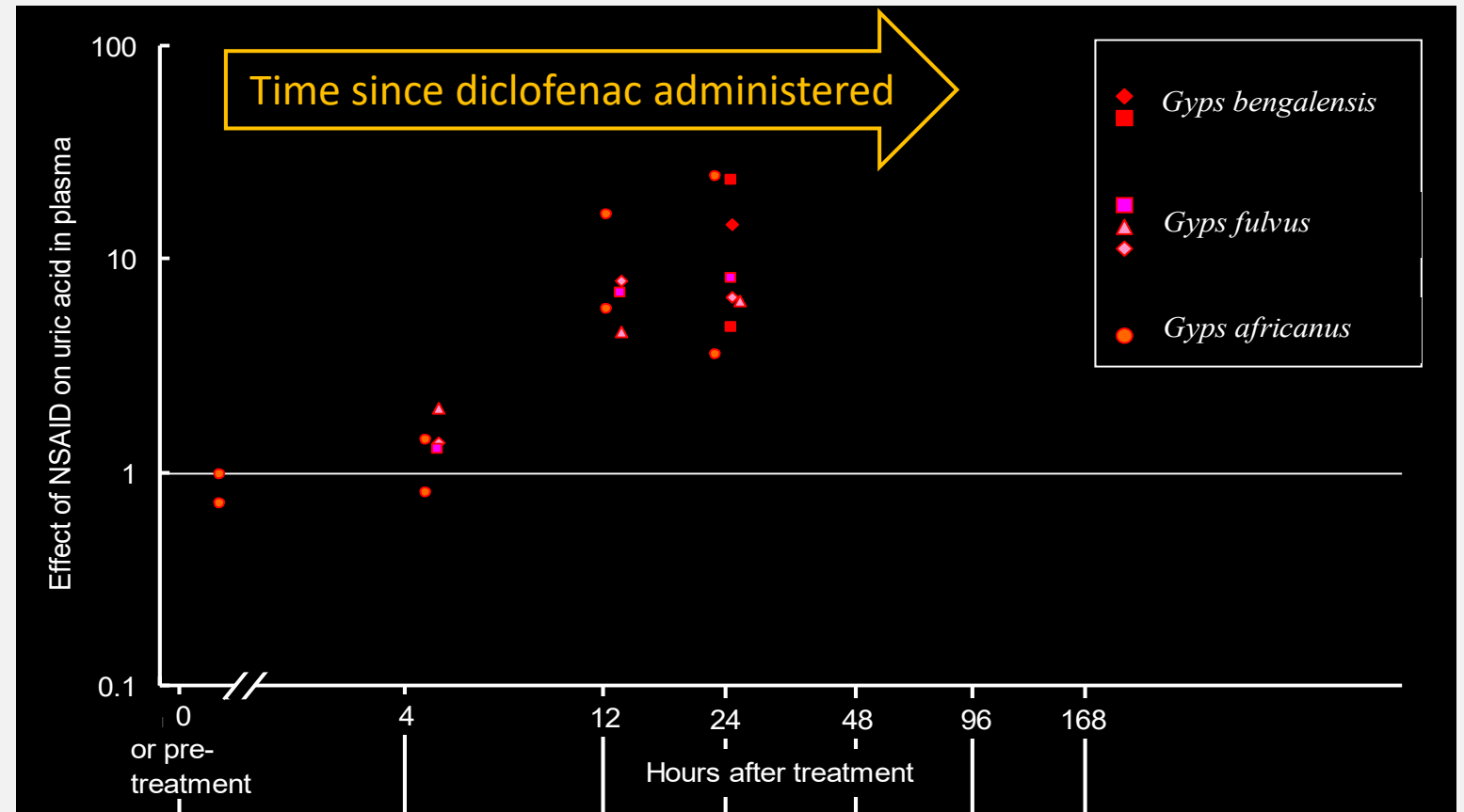




At necropsy **about 75%** of wild vulture carcasses were found to have extensive visceral gout: uric acid deposits in the tissues

Oaks et al. (2004) *Nature* **427**, 630-633.

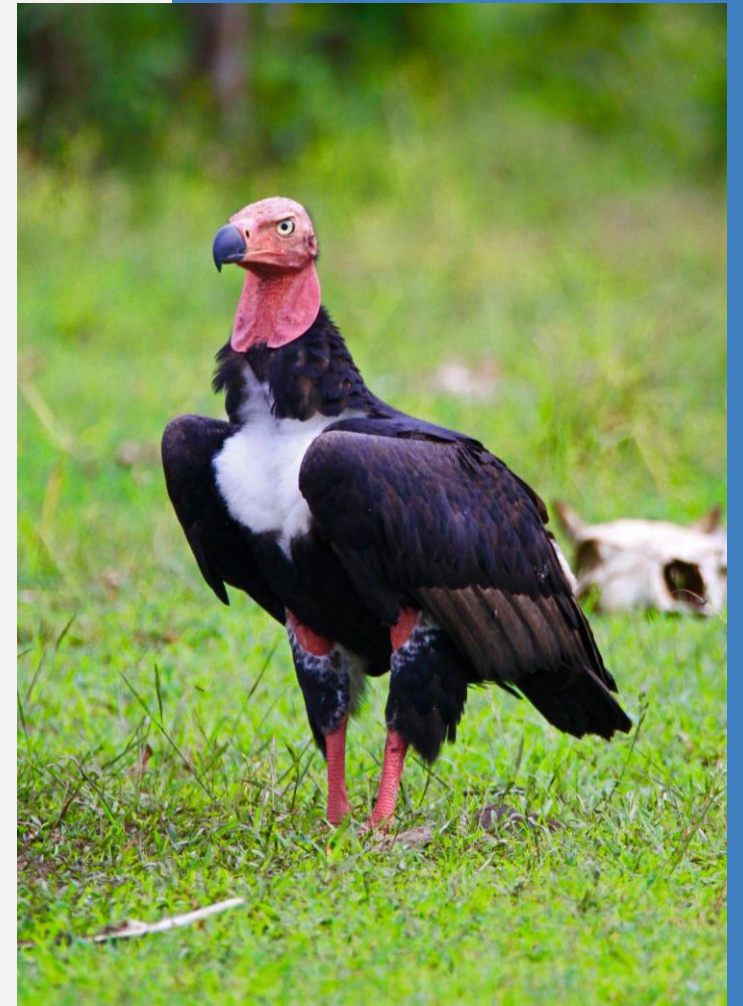
Shultz et al. (2004) *Proc Roy Soc B Suppl.* **271**, S458-S460.



Oaks et al. (2004) *Nature* **427**, 630-633.

Diclofenac was the first NSAID shown to be toxic to scavenging birds and has been banned for veterinary use in much of Asia vultures' range. Currently, there are fully gazetted bans on the manufacture, sale and use of veterinary diclofenac in:

- **India**
- **Nepal**
- **Pakistan**
- **Bangladesh**
- **Iran**
- **Oman**
- **Cambodia**



and other countries are considering a similar ban.

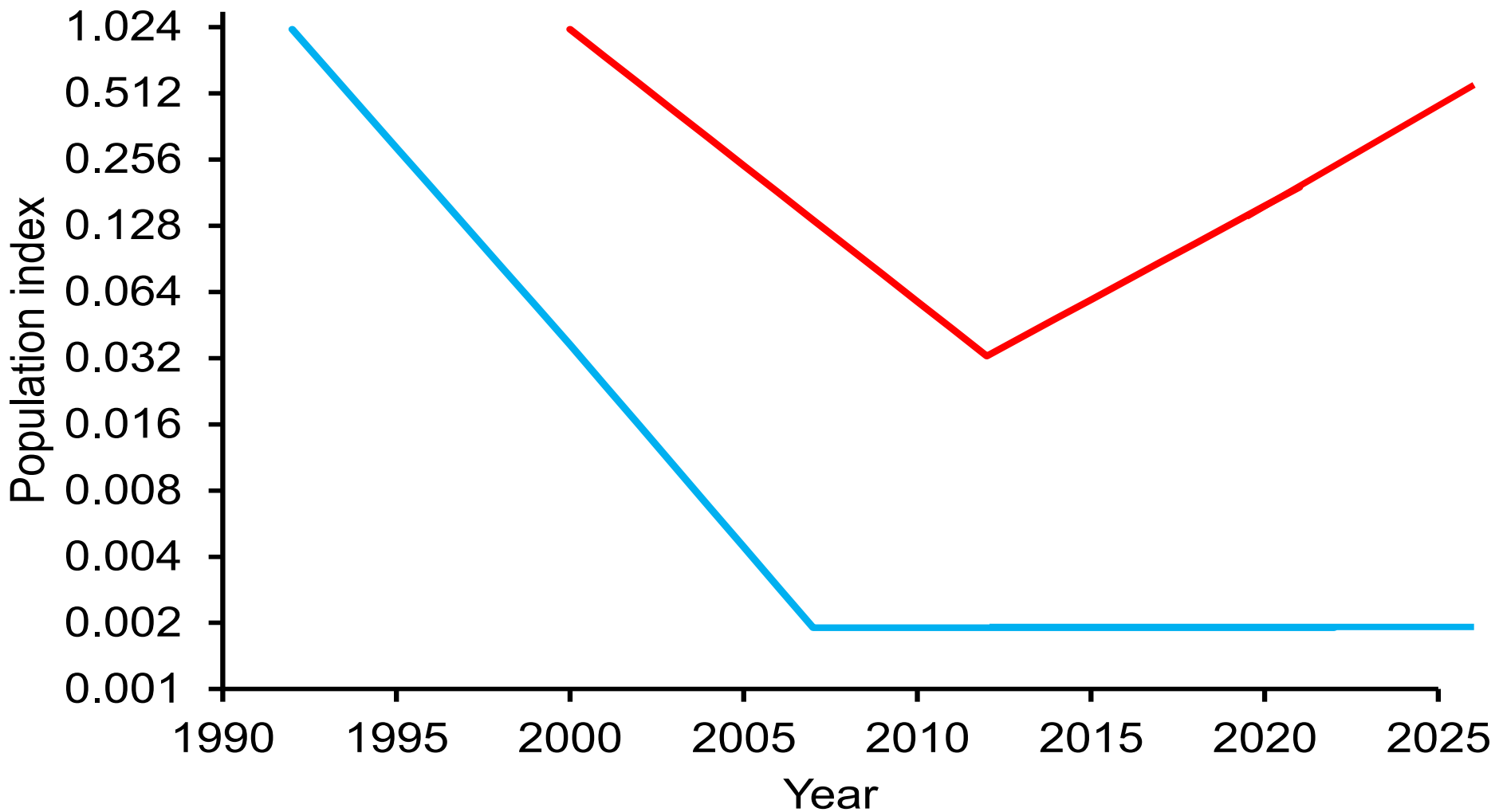
Drug name	Threat / safety	Known effect
Meloxicam	Confirmed Safe	Tested and shown to be safe for vultures (Swarup D. <i>et al.</i> 2007)
Tolfenamic acid	Confirmed Safe	Recently tested and results show it is also safe. (Chandramohan <i>et al.</i> 2022)
Carprofen	Toxic at high doses	Shown to be at toxic levels for vultures in cattle tissues around the injection site (Fourie <i>et al.</i> 2015)
Flunixin	Toxic	Shown to be toxic to <i>Gyps</i> vultures in Spain and Italy with dead wild birds showing gout & flunixin in tissues. But not fully safety-tested on vultures. (Zorrilla <i>et al.</i> 2014, Eleni <i>et al.</i> 2019)
Nimesulide	Confirmed Toxic	Banned in many countries due to safety issues in humans and banned in India for under 12s. Fast becoming popular in India & Nepal. Confirmed cases of dead wild vultures with gout and nimesulide but no diclofenac (Nambirajan <i>et al.</i> 2021) and safety-trials demonstrate toxicity. (Galligan <i>et al.</i> 2022).
Aceclofenac	Confirmed Toxic	Metabolises into diclofenac in cattle so equivalent effect to diclofenac (Galligan <i>et al.</i> 2016, Sharma 2012)
Ketoprofen	Confirmed Toxic	Trials carried out on <i>Gyps</i> vultures showed toxicity at concentrations found in treated cattle in India (Naidoo <i>et al.</i> 2009). National ban in Bangladesh 2021.
Diclofenac	Confirmed Toxic	Confirmed highly toxic in 2003 (Oaks <i>et al.</i> 2004), and banned as veterinary drug in Bangladesh, Cambodia, India, Iran, Nepal, Oman, Pakistan and Socotra.



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White-rumped Vulture population in India and Nepal



NSAIDs and CMS


Guidelines To Prevent The Risk Of Poisoning To Migratory Birds

Non-steroidal Anti-inflammatory Drugs and vultures



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UN environment programme CMS Convention on the Conservation of Migratory Species of Wild Animals Fact Sheet RAPTORS



THE THREAT OF VETERINARY DRUGS TO RAPTORS

White-rumped & slender-billed vultures are among the most seriously affected vultures by NSAIDs. Photo: © Phaerun Sum

BACKGROUND SUMMARY

A group of common non-steroidal anti-inflammatory drugs (NSAIDs) used to treat livestock are known to be toxic to various scavenging raptor species, causing catastrophic declines in vulture populations of Asia.

These NSAIDs are toxic to all eight species of vulture of the genus *Gyps*, to several other vulture species, and to eagles of the genus *Aquila*.

Most licensed NSAIDs are currently untested for impacts on raptors.

All 15 migratory African-Eurasian vulture species are listed in CMS Appendix I and/or II, and most are globally threatened.

Safe alternative drugs are available for livestock treatment and urgent action is needed to withdraw toxic NSAIDs from veterinary use and mitigate risks to raptors.

What are Non-Steroidal Anti-Inflammatory Drugs (NSAIDs)?

NSAIDs are commonly used in human and veterinary medicine, to relieve pain and to reduce inflammation or fever. There are at least 24 NSAIDs, of which the most well-known are **diclofenac**, **aspirin**, and **paracetamol**. When used in veterinary practice, some of these NSAIDs pose a serious threat to vultures and other raptor species.

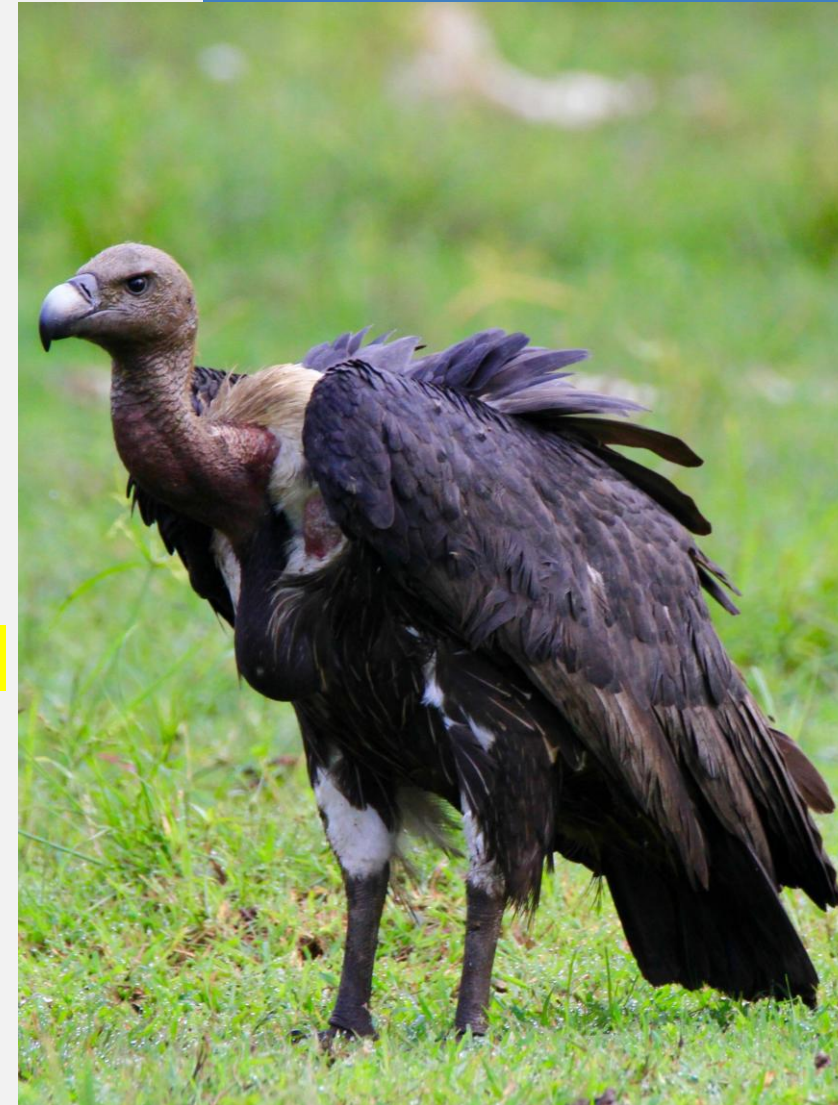
Facts and Figures

- The introduction of **diclofenac** for veterinary use in India, Pakistan, Nepal and Bangladesh in the 1990s has resulted in the collapse of most of their vulture populations in less than 15 years (e.g., the White-rumped Vulture (*Gyps bengalensis*) declined by 99.9%).
- Based on pre-decline population estimates, the veterinary use of NSAIDs in these countries caused millions of vulture deaths in less than two decades, before regulatory changes in veterinary use of NSAIDs bore results.
- Several NSAIDs are now scientifically proven to be toxic to the eight species of vultures of the genus *Gyps*. **Diclofenac** has been proven lethal for the Cinereous Vulture (*Agypius monachus*) and suspected as toxic to eagles of the genus *Aquila*, the Egyptian Vulture (*Nesophron percnopterus*) and Red-headed Vulture (*Sarcogyps calvus*).
- Many veterinary NSAIDs currently in use and being licensed for use have not been safety tested on scavenging raptor species.
- [Appendix I and/or II](#) of the CMS lists 15 African-Eurasian migratory vulture species, the majority of which are globally threatened; the [CMS Vulture Multi-species Action Plan](#), which aims to conserve all 15 African-Eurasian migratory vulture species, includes specific actions on NSAIDs.
- [The CMS Guidelines to Prevent the Risk of Poisoning to Migratory Birds](#) provide clear legislative and non-legislative recommendations to prevent risk from veterinary use of NSAIDs.



Resolution 11.15 (Rev.COP14) Preventing Poisoning Of Migratory Birds

- Ensure **safety testing of existing veterinary NSAIDs** on live, captive Old World vultures, eagles and other scavenger birds;
- **Withdraw licensing of vulture-toxic NSAIDs** (including diclofenac) for veterinary use or **implement comprehensive risk assessment** with particular reference to known regional threats to vultures and other scavenging raptors;
- Ensure that **safety testing** on vultures of new veterinary NSAIDs is made a **mandatory part of the protocol of research and development** and **wholly financed by the pharmaceutical industry**, making licensing conditional on the results of these tests; and
- Contribute to **identification and promotion of safe alternative drugs**;



WOAH and CMS

WOAH is a member of the CMS Migratory Species and Health WG

WOAH Webinar March 2026

WOAH CMS Emergency Factsheet

- National Veterinary Services
- National wildlife health authorities
- National Veterinary Medicine Agencies

Future joint capacity building events



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The Vulture Emergency
Non-Steroidal Anti-Inflammatory Drug (NSAID)
risks to Health and Biodiversity

March 2026

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World Organisation for Animal Health | CMS | RAPTORS MOV | BirdLife | RSPB

save | UN environment programme | VULTURE Specialist Group | WHSG | WVA WORLD VETERINARY ASSOCIATION

The factsheet cover features a large photograph of a vulture perched on a rock. The title 'The Vulture Emergency' is in large orange font, with the subtitle 'Non-Steroidal Anti-Inflammatory Drug (NSAID) risks to Health and Biodiversity' below it. The date 'March 2026' is in the top right corner. At the bottom, there is a row of logos for partner organizations: World Organisation for Animal Health, CMS, RAPTORS MOV, BirdLife, RSPB, save, UN environment programme, VULTURE Specialist Group, WHSG, and WVA WORLD VETERINARY ASSOCIATION.



Thank you!



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