## Back from the edge

**CONSERVATION Atula Gupta** finds out that the number of vultures which had drastically fallen around 2006, owing to the use of the drug, Diclofenac, has stabilised in the recent past. A recent study shows that for all three critically endangered species of vultures in India and Nepal, populations have remained stable in the last few years, thanks to a ban on the killer drug.

ack in the Eighties, vultures were not an unfamiliar sight in India. These scavengers could be seen in hundreds, huddled around a carcass devouring the meal nature provided for them to feed on. But times changed and vulture numbers began to fall at an alarming pace. The culprit was a pain-killer called Diclofenac, used to treat cattle. The drug was turning meals to poison for the birds when they ate the adulterated carcass. In 2006, the use of Diclofenac was banned and it is after six years that conservationists have encouraging news to share with the world. The vultures are still a vulnerable lot, but at least the last few have been spared.

Of the several species of vultures found in the world, India is home to three species namely the white-rumped vulture, longbilled vulture and slender-billed vulture. Shockingly, since the '90s, the population of all these three species began to show a downward trend with almost 99 per cent of the birds perishing in the entire subcontinent. It was the steepest decline in population any bird species in India and the world has seen.

## **Killer drug**

Despite the halt in use of the drug in 2006, trends showed a fall in vulture numbers. Until recently, questions loomed if the drug was seriously jeopardising vultures' lives or whether the sudden drop in species numbers was due to something else. There was no way to tell if the ban was really effective.

Finally, in a new study in the science journal, *PLoS ONE*, researchers reported recently the results of long-term monitoring of vulture numbers from surveys across India and Nepal. It shows that for both nations and for all three critically endangered species, populations have remained stable in the last few years. Prior to the ban of the killer drug, vulture population was dropping at a rate of up to 40 per cent a year and thus, the ban did prove to be a boon for the areal scavengers.

In 2007, the Bombay Natural History Society (BNHS) which was also part of the present survey, estimated that there were only about 11,000 white-backed, 1,000 slender-billed and 44,000 longbilled vultures left in India. Their previous population was thought to number in tens of millions.

The study's lead author, Vibhu Prakash from BNHS commented, "The slowing of the decline in vulture numbers across India for all three critically endangered species is the first sign that the government's ban on veterinary Diclofenac is having its desired impact. Continued efforts are still required to protect the remaining small populations including halting the illegal use of human forms of the drug in the veterinary sector."

While it is not easy to buy Diclofenac as a veterinary drug, it is child's play to get the same from a neighbourhood chemist selling the human form of the drug. Many farmers looking for a quick solution to their animal's pain do just that. Also, Diclofenac is not the only villain in the vulture world.

A new veterinary drug, Aceclofenac, is equally dangerous as it gets mobilised into Diclofenac, said a paper published in July this year. It only points to the need for a comprehensive environment evaluation of veterinary drugs before granting licence.

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## **Road ahead**

Vultures have never been a favourite species for man, but contrary to popular sentiments, these natural scavengers do make the world a better place to live in by cleansing the environment of decaying animal matter.

A planet without them would mean no easy escape from rotten smells and epidemic spreading germs thriving in the dead animal carcass.

In a previous study conducted by Punebased NGO Ela Foundation and the National Institute of Virology (NIV), it was also revealed that the drug is just one problem. As per the government's directions under the Gram Swacchata Abhiyan, livestock carcasses have to be buried and not left outside in villages. This has led to food shortage for the birds.

Though vulture centres set up by state governments in different regions of India have ensured that the birds get their daily meal, the initiative needs to gather momentum.

Electrocution is a concern as well as dearth of tall nesting trees that the birds prefer. Many farmers spray cattle carcasses with pesticide such as organo-chlorine and organo-phosphorous to prevent them from spreading foul odour. This pesticideinfested carcass may be eaten by vultures leading to their death.

The catastrophic decline of vulture numbers may have ceased, but it is a small victory.

For this to become the greatest conservation story of all time, the road ahead involves not just careful planning to remove all known poisons, but restoration of the safe havens for them to survive and breed.