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Vulture: need rehabilitation in Vindhyan eco region India

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ABSTRACT

Vultures play an important ecological role through the rapid consumption of animal carcasses. It is important to document the status of vulture, threats and building local capacity in species monitoring, awareness and conservation in Vindhyan eco- region of Madhya Pradesh. Rehabilitation strategies make revive the viable population of *vulture* species in the wild and conserve the critically endangered population of vultures.

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INTRODUCTION

Vultures play an important role in maintaining clean environment through rapid consumption of animal carcasses. India has nine species of vultures in the wild. These are the Oriental White-backed Vulture (*Gyps bengalensis*), Slender billed Vulture (*Gyps tenuirostris*), Long billed Vulture (*Gyps indicus*), Egyptian Vulture (*Neophron percnopterus*), Red Headed Vulture (*Sarcogyps calvus*), Indian Griffon Vulture (*Gyps fulvus*), Himalayan Griffon (*Gyps himalayensis*), Cinereous Vulture (*Aegypius monachus*) and Bearded Vulture or Lammergeier (*Gypaetus barbatus*). The population of three species i.e. White-backed Vulture, Slender billed Vulture and Long billed Vulture in the wild has declined drastically over the past decade. The decline of *Gyps* genus in India has been put at 97% by 2005.

Status of vulture in indian subcontinent

Nine species of vultures has been recorded from South Asia, of which eight are resident and one migratory. Within India, Nepal and Pakistan vulture

populations have undergone dramatic declines in numbers since the mid 1990s, with declines in excess of 97% for three resident species (whiterumped, slender-billed and long-billed vulture *Gyps indicus* now confined in India). In India, numbers of whiterumped vultures have declined by 99.9% from 1992 to 2007^[1]. Monitoring of vultures in Nepal indicates declines of a similar magnitude with a >90% decrease in numbers up to 2001^[2]. As a consequence, these three *Gyps* vulture species were listed by the International Union for the Conservation of Nature (IUCN) in 2000 as Critically Endangered^[3]. Extensive research undertaken within India, Pakistan and Nepal has established that the non-steroidal anti-inflammatory drug (NSAID) Diclofenac is the main, and perhaps the only, cause of the population declines^[4-6]. In Bangladesh, the *Gyps bengalensis* is threatened and *Gyps indicus* and *Gyps fulvus* are now rare.

Madhya Pradesh towards vulture conservation

After the success of its Vulture Conservation Breeding Programme in Haryana, West Bengal and

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Aegypius monachus



Gyps bengalensis



Gyps fulvus



Gyps indicus



Gyps himalayensis



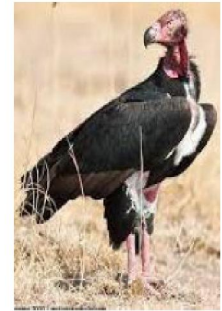
Gypaetus Barbatulus



Gyps tenuirostris



Neophron percnopterus



Sarcogyps calvus

Figure 1 : Various species of vulture



Figure 2 : Natural habitat of vulture

Assam, BNHS-India is all set to set up a Vulture Safe Zone in Madhya Pradesh. In continuation of its decade-old vulture conservation programme, BNHS-India, in association with Rio Tinto and Bird Life International, is all set to establish a Vulture Safe Zone (VSZ) in the Bundelkhand region of Madhya Pradesh.

Why vindhyan region rehabilitate vulture species

Vindhyan region is located in north east of Madhya Pradesh state which is specially seen with

persons having Bagheli dialect. This region covers District Rewa, Sidhi, Satna, Katni, Shadol, Singrauli and Umaria. The Vindhya Range refers to a complex, discontinuous chain of mountain ridges, hill ranges, highlands and plateau escarpments in west-central India. It is also known as land of waterfall. Due to climatic conditions, Valley, Hills, Rivers, Plain region, and biodiversity rich region, Vindhya Eco-region is the right place to rehabilitate vulture species and establish breeding centre. Purva, Chaachai and kevati water fall are lies in western



Figure 3 : Nest of vulture eggs of vulture feeding of vulture

part of Rewa which is suitable place to breeding while Bahuti surrounding water fall and adjoining areas which are located in eastern part; vulture are about to extinct in wild and need rehabilitation immediately^[7].

Rehabilitation strategy

Site of Waterfalls, River bank, long old trees, forest and valley in Vindhyan Eco region can be utilize to regular, month wise nest monitoring. Threats of vulture *can be documented* and local capacity building in species monitoring, awareness and conservation can be developed.

Tools requirement for survey

- A pair of binoculars (7X50 magnifications)
- Global Positioning System (GPS) *Garmin etrex summit*
- 4X4 vehicles
- One digital still camera (10x optical zoom)
- Data recording sheets
- Note book
- An identification guide to the birds of Indian sub-continent
- Printed Images of targeted species for distribution among locals

Status survey can be done in following region

Monitoring of vulture can be done in six districts of Vindhyan eco-region i.e., Rewa, Sidhi, Satna, Shabdol, Umaria and Anoopur

Area wise following fifteen places can be covered

- Rewa (Obari, Kakreri, Sohagi and Govind garh),
- Sidhi (Sanjay National Park area, Chandreh, Mada, and Coal mine area),
- Satna (Chitrakoot, Gidhkoot, Markandeya and Dharkundi),
- Shabdol (Byohari,), Umaria (Bandhav garh) and Anoopur (Amarkantak)

Research and development perspective

Prevention of the extinction of vulture species by ensuring re-introduction, safe food supply, maintenance of suitable habitat and better understanding of the ecological importance of these birds in Vindhyan eco-region. Genotyping and phylogenetic establishment could help to tracking the ancestor's analysis and resistance breed of species. Establishment diclofenac free zone and implement a targeted advocacy and awareness. In the short term to maintain and enhance the existing Vulture populations in this region. In the long term, to encourage the recolonisation of the former range. Information to the public and increase general awareness of the need to protect Vultures and their habitat. Education and awareness campaigns about the ecological role of scavengers as sanitarians of the environment, and their vulnerability to poisoning. Successful re-introduction and restocking projects could be widely publicized and used as a means of increasing the public's

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appreciation of this species. The Vulture could be considered as a “flagship” species to promote the conservation of forests and traditional farming practices throughout its range in Vindhyan eco region.

CONCLUSION

Documentation of threats and building local capacity in species monitoring, awareness and conservation in Vindhyan eco- region of Madhya Pradesh that facilitate revive the viable population of *vulture* species in the wild and conserve the critically endangered population of vulture’s species.

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