

Vulture Conservation in Tripura

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1. Introduction:

The scavengers play a critical role in the stability of the ecosystem and food webs, thereby maintaining ecological balance in nature. The scavengers remove carcasses from the environment, a valuable service that goes well beyond aesthetics. Besides eliminating dead bodies from the environment, the scavengers remove pathogens and toxins by rapidly consuming carrion before it decays. If carcass is allowed to putrefy, bacteria and pathogens may spread within the local environment and infect other animals and humans affecting their health and economy.

Vultures are often dominant scavengers as they can scan large areas from the air and locate dead animals quickly. Major scavengers affect the equilibrium between populations of other scavenging species in the ecosystem and such change may increase in putrefying carcasses. The vultures exclusively thrive on animal carcasses and are effective at removing pathogens and toxins from the environment. Both increases in putrefying carcasses and changes in the scavenger populations have associated disease risks for wildlife, livestock and humans. Following the decline of Indian vulture population, the population of rats and feral dogs expand and with it the incidences of rabies and other diseases like anthrax. Without the healthy vulture population, the entire food web and human populations could be exposed to these pathogens and toxins that are otherwise destroyed by vulture's digestive system. The decline in vultures has also affected the traditional custom of the Parsis of placing their dead in the 'Towers of Silence' for vultures to feed upon. Vultures also have spiritual significance in Hindu mythology, as the vulture-king Jatayu died attempting to protect Sita, one of the principal characters of the Hindu epic 'Ramayana', from the demon king Ravana, while her husband Prince Rama was away hunting.

2. Current Scenario of Vultures in India:

India has nine species of vultures in the wild, of which five belong to the genus *Gyps*. Three *Gyps* vultures, namely the Oriental White-backed Vulture (*Gyps bengalensis*), Long-billed Vulture (*Gyps indicus*) and Slender-billed Vulture (*Gyps tenuirostris*) are residents, and the remaining two, the Eurasian Griffon (*Gyps fulvus*) and Himalayan Griffon (*Gyps himalayensis*) are largely wintering species and a small population breeds in Himalayas. Oriental White-backed Vulture (*Gyps bengalensis*), Long-billed Vulture (*Gyps indicus*) were abundant across large parts of India until the 1990s. The Slender-billed Vulture (*Gyps tenuirostris*), which was not distinguished as a separate species from Long-billed Vulture until recently, was also locally common in north and north-eastern parts of the Indian subcontinent. This abundance was the result of plentiful food supply, in the form of the carcasses of domesticated ungulates. Whilst vulture populations were able to exploit the large amounts of food available, Indian society benefited from the rapid and hygienic removal of dead livestock by vultures, a flock of which can finish a cow carcass clean in a matter of minutes.

The population of resident *Gyps* vultures in the Indian subcontinent crashed during the 1990s. This was first reported and documented in 1996-97 by the Bombay Natural History Society (BNHS), whilst monitoring raptors numbers in Keoladeo National Park, at Bharatpur in Rajasthan. The BNHS conducted nationwide raptor surveys in many parts of India between 1991 and 1993 using a road transect method. The survey was repeated in 2000 and the results were dramatic. The populations of Oriental White-backed Vulture and Long-billed Vulture had declined by more than 92% between 1991-93 and 2000. By the year 2007, the population had declined by an astonishing 99.9 % for Oriental White-backed Vultures and by 97% for long billed and slender billed vultures. Because of the evidence of widespread and rapid population decline, all three vulture species were listed by IUCN, the World Conservation Union, in 2000 as 'Critically Endangered,' which is the highest category of endangerment. This assessment indicated a high risk of global extinction in the wild in the near future. The vultures are also listed in the Schedule-I of the Indian Wildlife Protection Act (1972) which is the highest category of protection for Wildlife in the country. Unfortunately, the current captive populations in India are also not viable for any of the species and, therefore, complete extinction is likely to occur if no action is taken immediately.



5. Vulture Conservation Breeding Program

The Conservation Breeding Program appears to be the only conservation action, which could save the vultures from extinction. Based on a mathematical model, if 150 pairs of each of the three species could be held and breed in captive, it would be possible to get a derived population of 600 pairs of each of the three species, within ten years of the beginning of release programme. This will form a genetically diverse and self propagating population. The establishment of a long term Conservation Breeding programme is the only possible way of reintroducing the vultures in the wild, so that they could play their ecological role in the environment. So far only three centres have been set up by the state governments and Bombay Natural History Society.

Hon'ble Chief Minister Shri Biplab Kumar Deb has shown keen interest in the species recovery plan of the Vultures in the state. At his initiative, one Vulture Conservation Breeding Centre is being established in Tripura state at Padmabill, Khowai district, which will help in conservation of these critically endangered vulture species in north- eastern India so that ecosystem remains in healthy shape.
