



## The Vulture Project:

A Unique Cost-Benefit Analysis of the Vulture Population Decline in India.

**Scope of the Project:** India\*

**Timeline:** 12 months

**CSR Activities Addressed:** 1. Ensuring environmental sustainability; 2. Ensuring ecological balance and the protection of fauna and flora biodiversity; 3. Promoting preventive healthcare and sanitation

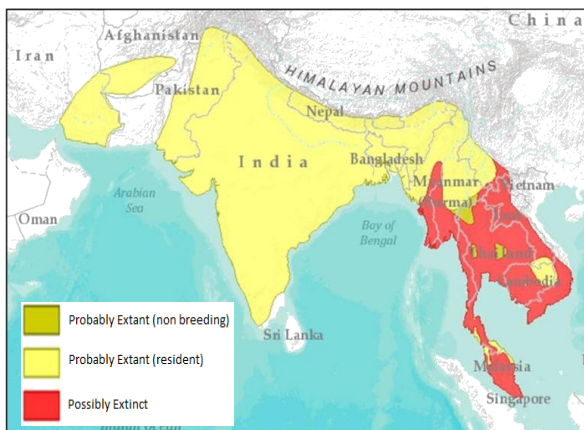
### Purpose:

Vultures provide a vital ecological service as primary carrion feeders and disposers of carcasses. They are 'keystone' scavengers, with paramount human health, biodiversity, ecosystem services values, as well as deep-rooted and lively cultural significance for the Parsee, Buddhist and Hindu communities of India. Within two decades, since 1990, the vulture population has suffered the most dramatic decline of a wild species in human history (TEEB for Vultures, 2015). Being home to nine vulture species out of the 23 registered globally, **India's commitment to vulture conservation is necessary for achieving concrete vulture repopulation across the Indian subcontinent.**

### Background:

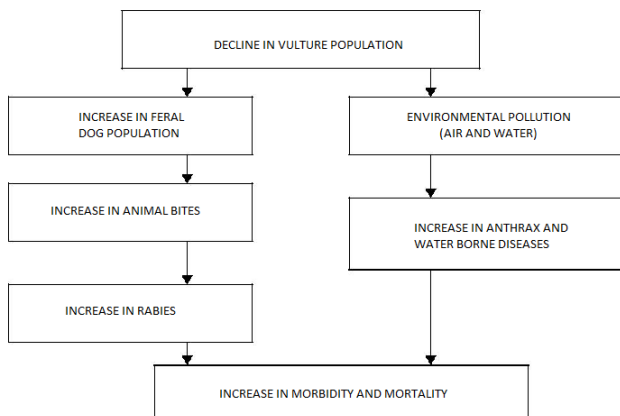
#### Species Range of Gyps Bengalensis

Source: TEEB for Vultures, 2015.



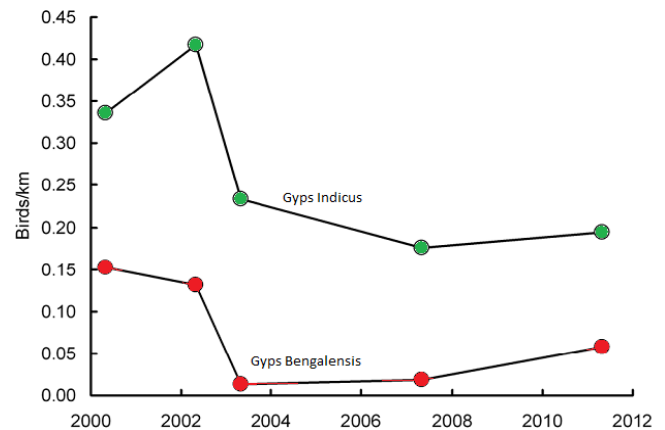
#### Health Damages from reduced Vulture population

Source: Markandya et al., 2008.



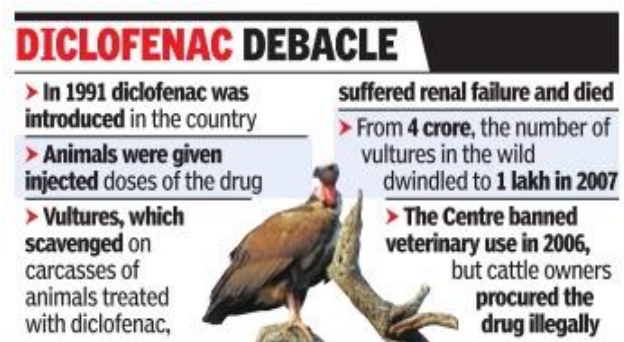
#### Decline in Vulture population in India

Source: Prakash et al., 2012.



#### NSAID Diclofenac killing Vultures

Source: Cambridge Conservation Science, 2012.



**DICLOFENAC DEBACLE**

- > In 1991 diclofenac was introduced in the country
- > Animals were given injected doses of the drug
- > Vultures, which scavenged on carcasses of animals treated with diclofenac, suffered renal failure and died
- > From 4 crore, the number of vultures in the wild dwindled to 1 lakh in 2007
- > The Centre banned veterinary use in 2006, but cattle owners procured the drug illegally

### Proposed Activities:

- 1) **Developing a pilot *Vulture Ecosystem Services Assessment Study***, including an economic valuation to account for the positive externalities accrued due to increases in vulture populations, through the following assessments:
  - a. **Framework:** Identification of ecological services provided by vultures, to be facilitated by extensive socio-economic data collection at the ground level.
  - b. **Data Gathering:** Data collection at village-level to pin down costs and benefits for livestock owners to switch from *Diclofenac*, and ground-testing survey in villages to determine the farmers' acceptance of alternative drugs.
  - c. **Computation:** Estimation of positive externalities, including evaluation of human health costs due to decline in vulture population in India. Estimation the costs of implementing a complete ban on *Diclofenac* in India and the costs of subsidising alternative vulture safe drugs to replace *Diclofenac*.
  - d. **Report:** Production of summary report which will include analytical results, assessments, recommendations, and next steps for potential implementation of vulture conservation policies by the government.

### Expected Achievements:

- Raise awareness among local stakeholders – farmers, livestock owners, veterinarians and veterinary retailers – on the toxicity of *Diclofenac* for vultures and the availability of alternative vulture-safe drugs and foster the shift to these.
- The commitment of policy makers, businesses and local stakeholders to enhance vulture conservation across India, through advertising and subsidising of vulture-safe drugs, and investing in the breeding and re-introduction of vultures and maintenance of vulture-safe zones.
- Optimisation of corporate activities due to improved provision of ecosystem and social services.

### Supporting SDGs:

Addressing the decline in vulture populations in India gives businesses the opportunity to invest in sanitation initiatives and to promote preventive healthcare across India, contributing to the fulfilment of **SDG 3** for healthy lives for all and **SDG 6** for clean water and sanitation for all<sup>†</sup>.

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\* Investors are free to suggest additional areas of interest for the conduct of the pilot project.

<sup>†</sup> [www.sustainabledevelopment.un.org](http://www.sustainabledevelopment.un.org)