CRISIS RIDDEN VULTURE POPULATION FINDING A SAFE ZONE IN SIRONCHA, GADCHIROLI DISTRICT

INTRODUCTION:

Out of total 23 vulture species all across the world, India has nine species in the wild (MoEF, 2006; Thakur et al., 2012). These are the Oriental white rumped (Gyps bengalensis), Slender billed (Gyps tenuirostris), Long billed (Gyps indicus), Egyptian (Neophron percnopterus), Red Headed (Sarcogyps calvus), Indian Griffon (Gyps fulvus), Himalayan Griffon (Gyps himalayensis), Cinereous (Aegypius monachus) and Bearded or Lammergeier (Gypaetus barbatus) (MoEF, 2006). Five species of vultures viz., Oriental white rumped, Long billed, Egyptian, Red Headed, and Cinereous, have been reported from Maharashtra (Grimmet et al., 1998). Last two decade has witnessed drastic reduction in the population of vultures due to which four species of vulture as Oriental white rumped, Long billed, Slender billed and Red headed vulture have been enlisted as critically endangered and Egyptian vulture as an endangered species on the IUCN red list (IUCN, 2010). Population have been declined by an astonishing 99.9% for Oriental white rumped and 97% for Long billed and Slender billed vulture (Prakash et al., 2007; IUCN, 2010; Clements et al., 2013).

Vultures are a keystone species in the terrestrial ecosystem, providing a significant ecosystem service by disposing off carcasses which creates serious public health concern (Mahapatro and Arunkumar, 2014). Besides, they are also culturally important birds. In India, feral dog populations have increased by 30% (Virginia Quarterly Review, 2011) due to the disappearance of vultures, which consequently has increased the risk of human rabies and anthrax (Mahapatro and Arunkumar, 2014). Furthermore, it has a drastic social impact on the dwindling Indian Zoroastrian Parsi community, who traditionally depended upon them for the disposal of human corpses in 'sky burials' (Mahapatro and Arunkumar, 2014). Though, there are many reasons presumed for this declining trend (Mahapatro and Arunkumar, 2014), diclofenac given to livestock to treat inflammations, fevers and/or pain seems to be main culprit causing avian visceral gout and renal failure in vultures (Green et al., 2004; Oaks et al., 2004).

Decline in vulture population has also been reported in Maharashtra state including Gadchiroli district as confirmed by the locals. In an effort to arrest the situation and conserve the remaining vulture population, vulture conservation programme has been started by the Sironcha Forest Division which is situated at the southern part of the Gadchiroli district. It includes public awareness, creating vulture restaurants, celebrating International Vulture Awareness Day, designating title of gidhad (means vulture) mitra to individuals, and treating injured vultures. Upto now, 9 vulture restaurants have been built in the
area since 2012-13. However, vulture conservation effort carried out in Kamlapur range with joint efforts of the people and forest department since 2013 sets as a conservation model. Due to all these efforts, sighting of the vulture in the area has increased. Besides, new nests are being built by the vulture in the area.

A. VULTURE CONSERVATION IN KAMALAPUR:

1. First Sighting of Vulture

Kamalapur range is situated in Aheri Taluka of Gadchiroli district. It is bordered by Pranhita wildlife sanctuary from one side and Kolamarka conservation reserve from another. Here, first sighting of vulture took place on 8th October 2013 in Compartment No. 144 near Chhallewada Village. Initially, group consisted of 12 to 15 individuals. Besides, one nest was spotted upon one teak tree in the same village. They were two adult white backed vultures protecting their young one. The tree was kept under regular monitoring with support from local villagers. Search for another vulture group in adjoining areas turned futile. However, in a significant development, villagers informed that earlier they used to put dead cattle at common place which was situated out of village premise. Such dead bodies are locally called as “Dhorphodi”. According to them, getting glimpses of vultures near these Dhorphodi was a common thing before 7-8 years. It gave a right trajectory to carry out survey of vultures which resulted into sighting of vultures in Khandla. All other Dhorphodi sites were kept under continuous monitoring which gave positive results in other areas also. 
2. Constructing vulture restaurants

Regular monitoring of Dhorphodi sites revealed that vultures were being badly disturbed by dogs while feeding on the carcasses. It required constructing structures called vulture restaurants safe and congenial for the vulture feeding (Gilbert et al., 2007; Mahapatro and Arunkumar, 2014). Vulture restaurant is an area of 30m × 30m with chain link fencing provided with wooden poles to make it camouflage with nature. A raised wooden platform called as ‘Machan’ (10ft × 10ft × 3ft) is erected in this area. Such restaurants have been constructed in Kamlapur, Kodselgudam, Chhallewada, Damrancha and Khandla villages.
Dogs sharing food of Vultures in Khandla

Vulture Restaurant in Kamlapur

For making provision of dead animal as a feed for vultures at these restaurants, villagers were assured Rs 250/- per dead animal. The programme was widely advertised. A set of format for data collection was devised to generate the data base from each restaurant which will be helpful in any future endeavor to conserve vultures. They dealt with group dynamics of the group, food being given in to them, information about villagers bringing the dead animals, and data regarding diseased animals in the adjoining areas with help from LDO (livestock development officer), along with any incidence of death of any vulture in

Table: Location of vulture restaurants in Kamlapur range

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Place</th>
<th>Lat./long.</th>
<th>Date of first sighting</th>
<th>Group size (approx.)</th>
<th>species</th>
<th>Nesting</th>
<th>Restaurants</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Chhallewada</td>
<td>19° 15’ 18” 80° 11’ 18”</td>
<td>Oct 2013</td>
<td>40</td>
<td>Long billed + white backed</td>
<td>(white backed)</td>
<td>+</td>
</tr>
<tr>
<td>2</td>
<td>Lakkameda</td>
<td>19° 10’ 45” 80° 06’ 38”</td>
<td>Jan 2014</td>
<td>30</td>
<td>Long billed</td>
<td>(Long billed)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Khandla</td>
<td>19° 16’ 30” 80° 10’ 30”</td>
<td>Feb 2014</td>
<td>50</td>
<td>Long billed + white backed</td>
<td>(white backed)</td>
<td>+</td>
</tr>
<tr>
<td>4</td>
<td>Tatigudum/ Kodselgudum</td>
<td>19° 12’ 52” 80° 10’ 57”</td>
<td>March 2014</td>
<td>40</td>
<td>Long billed + white backed</td>
<td></td>
<td>+</td>
</tr>
<tr>
<td>5</td>
<td>Kamlapur</td>
<td>19° 11’ 30” 80° 10’ 48”</td>
<td>June 2014</td>
<td>90</td>
<td>Long billed + white backed</td>
<td></td>
<td>+</td>
</tr>
<tr>
<td>6</td>
<td>Damrancha</td>
<td>19° 13’ 40” 80° 22’ 54”</td>
<td>Nov 2014</td>
<td>50</td>
<td>Long billed + white backed</td>
<td></td>
<td>+</td>
</tr>
<tr>
<td>7</td>
<td>Kodsepalli</td>
<td>19° 16’ 49” 80° 17’ 35”</td>
<td>Dec 2014</td>
<td>20</td>
<td>Long billed + white backed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Bhangarampetha</td>
<td>19° 13’ 05” 80° 21’ 44”</td>
<td>Dec 2014</td>
<td>50</td>
<td>Long billed + white backed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Chitveli</td>
<td>19° 10’ 46” 80° 22’ 18”</td>
<td>Jan 2015</td>
<td>10</td>
<td>Long billed + white backed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Tonder</td>
<td>19° 12’ 00” 80° 20’ 16”</td>
<td>Feb 2015</td>
<td>30</td>
<td>Long billed + white backed</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
such restaurants as well as in nearby areas etc. These records are regularly maintained by the respective Forest Guard and checked by Round Officers. Besides, to make survey more robust, whole area is being divided into grids and counting of all the nest in each grid is being carried out.

**Appeal to Villagers regarding vulture diet**

**Map**: Locations of vulture conservation programme in Kamlapur range of Sironcha division
Vulture conservation programme in Kamlapur range

3. People participation

People participation is most critical for making vulture conservation initiative a success (Shumsher and Timilsina, 2013). Villagers are supporting this conservation endeavor through providing food which in turn is giving them some financial benefits. It is solving their problem of carcasses disposal which were otherwise making environment unhygienic and unaesthetic as they were not being fed by the vultures. Besides, they are happy as the area is getting wide publicity in media. To make people aware about the significance of vulture and also importance of their conservation, International Vulture Awareness Day is being celebrated by the department annually on first Saturday of September. A meeting of all the staff and villagers is being organized where people and staff are being sensitized
through discussion, showing them documentaries, and inviting their suggestion for the cause. In one of such meetings, idea of ‘Gidhad Mitra’ (means Friend of Vulture) was mooted. Later are the individuals supporting department in vulture conservation effort including survey, monitoring and awareness creation. Mr. Shrihari Gurjalwal from Chhallewada village was first Gidhad Mitra in Kamlapur range. Besides, people are bringing injured vultures to the range office, and department is treating them with the help of LDO (Livestock development officer). Though people in the area are not using diclofenac and LDOs are also not prescribing it, as a precautionary measure, regular watch is being kept on the medical stores. Besides, they are being educated regarding its ill impact on vulture existence.

B. Achievements

Aforementioned conservation efforts resulted into sighting of group having 80 to 90 individuals on 18th August, 2014 at Kamlapur. They have built a new nest on a Teak tree near Khandla vulture restaurant. They themselves have asked for two new vulture restaurants near Kodsepalli and Tatigudum. Villagers have given information about the presence of vultures in Kodsepalli village. Villagers are now aware about vultures and their importance in ecosystem which is vital for the long term survival of the vulture.

C. Future path

Now, the focus should be upon undertaking study regarding the population of vultures and their sex ratio and group dynamics. Furthermore, study regarding their migratory pattern should be carried out. Training programme should be arranged for the frontline staff regarding vulture diversity, physiology and ecology. Rescue centre for the vultures should be established. Dhorphodi sites should be conserved and villages
A group of vultures sighted in Kamalapur

A White backed vulture nest in Khandla

coming forward for vulture conservation should be encouraged through some financial incentives and honoring them. Some honorarium may be arranged for the Gidhad Mitra. More awareness programme should be undertaken as success of this conservation initiative depends upon the extent of the people support for the cause.

References


