7.10 CONSERVATION PLAN FOR SCHEDULED FAUNA IN THE STUDY AREA

7.10.1. Conservation plan for Indian Peafowl (Peacock)

Zoological name–Pavo cristatus

Classification
Kingdom: Animalia
Phylum: Chordata
Class: Aves
Order: Galliformes
Family: Phasianidae
Genus: Pavo
Species: cristatus
Vernacular name: Mor or Peacock

Peacock or Indian peafowl (Pavo cristatus) is a very familiar bird and also recognized as National Bird of India Asiatic peafowl like the Indian Blue Peafowl and especially the Green Peafowl occupy a similar niche as the road runners, secretary bird and seriema. All of these birds hunt for small animals including arthropods on the ground and tall grass and minnows in shallow streams. Because of human encroachment into their natural territories, peafowl and humans have come into increasing contact. Because of their natural beauty some are reluctant to classify the birds as pests, but their presence can be disturbing.

7.10.1.2 Conservation Status: The conservation status of a group of organisms (for instance, a species) indicates whether the group still exists and how likely the group is to become extinct in the near future. The peacock falls in the category of LC i.e. Least Count as per IUCN and Schedule I (IWPA)

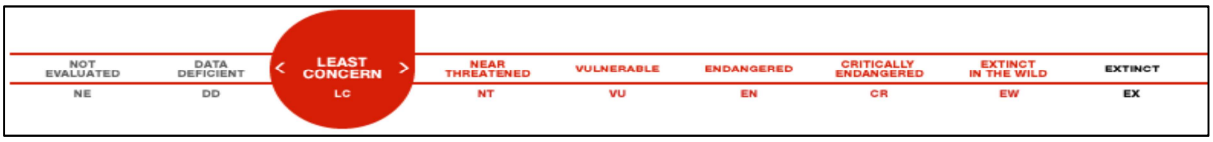

Figure 7.14: Conservation Status as per the IUCN categories

IUCN: Others (LC) ver. 3.1
IWPA: Schedule I.
CITES: Not listed.

7.10.1.3 Distribution: Pakistan, India and Sri Lanka. Many feral populations exist throughout the world.

7.10.1.4 Description of Pavo cristatus: The male, known as a peacock, is a large bird with a length from bill to tail of 100 to 115 cm (40 to 46 inches) and to the end of a fully grown train as much as 195 to 225 cm (78 to 90 inches) and weigh 4–6 kg (8.8–13.2 lbs). The females, or peahens, are smaller at around 95 cm (38 inches) in length and weigh 2.75–4 kg (6–8.8 lbs). Indian Peafowl are among the largest and heaviest representatives of the Phasianidae family. Their size, colour and shape of crest make them unmistakable within their native distribution range. The male is metallic blue on the crown, the feathers of the head being short and curled. The fan-shaped crest on the head is made of feathers with bare black shafts and tipped with bluish-green webbing. A white stripe above the eye and a crescent shaped white patch below the eye are formed by bare white skin. The sides of the head have iridescent greenish blue feathers. The back has scaly bronze-green feathers

with black and copper markings. The scapular and the wings are buff and barred in black, the primaries are chestnut and the secondary are black. The tail is dark brown and the train is made up of elongated upper tail coverts (more than 200 feathers, the actual tail has only 20 feathers) and nearly all of these feathers end with an elaborate eye-spot. A few of the outer feathers lack the spot and end in a crescent shaped black tip. The underside is dark glossy green shading into blackish under the tail. The thighs are buff coloured. The male has a spur on the leg above the hind toe. Peacocks are polygamous and the breeding season is spread out but appears to be dependent on the rains. Several males may congregate at a leek site and these males are often closely related. Males at leek appear to maintain small territories next to each other and they allow females to visit them and make no attempt to guard harems. Females do not appear to favour specific males. Peafowl are omnivorous and eat seeds, insects, fruits and reptiles. A large percentage of their food is made up of the fallen berries. Around cultivated areas, peafowl feed on a wide range of crops such as groundnut, tomato, paddy, etc. Around human habitations, they feed on a variety of food scraps. In the country side, it is particularly partial to crops and garden plants.

7.10.1.5 Habitat: The Indian Peafowl is found mainly on the ground in open scrub forest or on land under cultivation where they forage for berries, grains but will also prey on snakes, lizards and small rodents. Their loud calls make them easy to detect and in forest areas often indicate the presence of a predator such as a tiger. They forage on the ground in small groups and will usually try to escape on foot through undergrowth and avoid flying, though they will fly into tall trees to roost. The bird has a celebrated status in Indian mythology and hence protected culturally in India. The Indian Peafowl is listed as Least Concern by IUCN.

7.10.1.6 Peafowl Behaviour: Peacocks are gregarious by nature. In the breeding season they are usually seen in small parties of one male with three to five females whereas in the non -breeding season they remain in separate parties of adult males and females with juveniles. Peacocks roost in tall trees and emerge from the dense thickets to feed in fields and openings in forests and fields.

a. Life Cycle:
Voice/Call: Kee-ow, Kee-ow, Kee-ow, Ka-an, Ka-an, Ka-an, Kok-kok, Kok-kok, cain-kok
Breeding: April-September.
Nest site*:* On ground in undergrowth (wild), on buildings by semi-feral birds in villages.
Life Span*:* The life expectancy is about 10-15 years.

b. Food Habit: Peacocks are ground feeders. Indian peafowl's do most of their foraging early in the morning and shortly before sunset. They retreat to the shade and security of the trees for the hottest portion of the day. They make a meal of grains, berries drupes wild figs and some cultivated crops. They can also eat insect's small reptiles and small mammals.

c. Relationship with Man: The great beauty and popularity of the Indian Peafowl has ensured its protection throughout its native ranges. It is a National bird of India. The peafowl is prominent in the mythology and folklore of the Indian people. The Hindus consider the bird to be sacred because of its association with Lord Krishna who used to wear its feather as crown (Mor Mokut). It is also associated with the God Kartikeya, son of the Lord Shiva and Parvati and brother of Lord Ganesh. It is Vaahan (transport) of Lord Kartikeya. This long and close association with humans has proven the peafowl's adaptability to human altered landscapes. In villages where it is protected it becomes quite

tame, but is very shy and secretive where hunted. In the buffer area of mine site peacock is generally protected by the local people.

7.10.1.7 Threats in the Study Area: No perceptible threats were identified in the villages surveyed. Village residents are against hunting or poaching of the peafowl, due to culture and mythology reasons. Adult peafowl can usually escape ground predators by flying into trees.

a) Foraging in groups provides some safety as there are more eyes to look out for predators.

b) Habitat loss, specially the shortage of tall trees in and around the villages for roosting and for providing shade during hot summer months.

c) Shortage of drinking water for the birds during the hot summer days.

d) Casualties caused by eating chemically treated agricultural crop seeds.

e) Illegal hunting by some communities.

7.10.1.8 Conservation through Habitat Improvement and Awareness: Habitat improvement programme will be undertaken through plantation of suitable tree species in the surrounding villages. While selecting the tree/ shrub species care shall be provided for beery plants which attract these birds. During summer period, villagers will be encouraged to use the old earthen pots to fill with water for drinking these birds. Summer is the time when these. Birds are facing shortage of feeds; there by supplying the feed like Bajri, Juwar, Maize to the identified villages will suffix the problem of food shortage. The proponent can directly supply these feed to the villages directly or by funding to the NGOs active in this mission.

7.10.1.9 Feeding and Watering Arrangement: Artificial water holes will be created along the natural drained nallahs which can sufficient drinking water up to summer of the region. An anicut and open wall will be created by the project proponent as their community development programme involving the local panchayats in this work. Proposition for the suitable place to increase population of birds near plant nursery and office plantation will help. Provision for artificial nests, feeding trays and water troughs is under consideration. To support furgivorous birds, artificial feed like wild fruits and vegetables will be provided.

Direct and indirect approach is required to provide effective conservation, which is recommended as under:

i) Increasing the tree cover in the buffer area for shelter and roosting of peacocks. This will be achieved by planting of tree groves (a group of trees that grow close together, generally without many bushes or other plants) in buffer area. Some local species such as Neem, Siris, Amaltash, Ardu, Shesham, Dhak, Peepal tree etc. will be plant. Planting of tree groves in school compounds in the villages of buffers area will be plant as per the plantation programme.

ii) By conducting awareness programmes (community and school level) for conservation of peacocks in the area and also through organizing competitions during Wildlife Week and Van Mahotsave celebrations.

iii) Some provision of rewards to informers for the control of poaching and illegal trade in wildlife.

iv) Carrying out census and research projects to know the potential threats and population status of the species.

v) Provision of veterinary care and cages for injured or sick or deformed birds.

vi) Suggest strategies to minimize negative impacts of changing environment in nearby area of peacock populations and to promote conservation of peacock habitats.

vii) Another way to help preserve the endangered species is to create society dedicated to ecological ethics. All the conservation measures will be implemented with the help of and in the consultation of the district forest department, Sikar.

viii) With the objective of effectively protecting the wild life and to control poaching, smuggling and illegal trade in wildlife and its derivatives, the Government of India enacted Wild Life (Protection) Act 1972. The Act was amended in January 2003 and punishment and penalty for offences under the Act have been made more stringent.

7.10.2 Conservation plan for Monkey (Rhesus macaque)

Classification
Kingdom: Animalia
Phylum: Chordata
Class: Mammalia
Order: Primates
Family: Cercopithecidae
Genus: Macaca
Species: M. mulatta

The rhesus macaque (Macaca mulatta), is one of the best-known species of Old World monkeys. It is listed as Least Concern in the IUCN Red List of Threatened Species in view of its wide distribution, presumed large population, and its tolerance of a broad range of habitats. Native to South, Central and Southeast Asia, troops of Macaca mulatta inhabit a great variety of habitats from grasslands to arid and forested areas, but also close to human settlements.

7.10.2.2 Conservation Status: The conservation status of a group of organisms (for instance, a species) indicates whether the group still exists and how likely the group is to become extinct in the near future. The Monkey in the category of LC i.e. Least Count as per IUCN and Schedule II (IWPA)

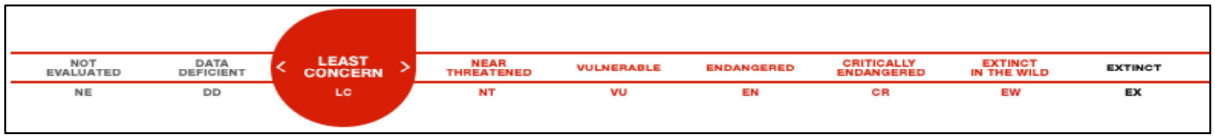

Figure 7.15: Conservation Status as per the IUCN categories

IUCN: Others (LC) ver 3.1.
IWPA: Schedule II.
CITES: Not listed.

Local names: Bandar, Monkey, Rhesus monkey.
Life span: 25 Years
Gestation: 5.5 Months (164 days)
Height: 531.8 mm (M), 468.8 mm (F)
Weight: 7.7 Kg (M), 5.34 Kg (F)

Native: Afghanistan; Bangladesh; Bhutan; China; India; Lao People's Democratic Republic; Myanmar; Nepal; Pakistan; Thailand; Viet Nam

7.10.2.3 Geographical Distribution: The species as a whole is found throughout most of southern Asia, in eastern Afghanistan, Bangladesh, Bhutan, central and southern China (Anhui, Fujian, Guangdong, Guangxi, Guizhou, Hebei, Henan, Hubei, Hunan, Shaanxi, Sichuan, Tibet, and Yunnan, as well as the island of Hainan), northern and central India (in the states of Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Gujarat, Haryana, Himachal Pradesh, Jammu and Kashmir, Jharkand, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Orissa, Punjab, Rajasthan, Sikkim, Tripura, Uttaranchal, Uttar Pradesh and West Bengal), Lao PDR, Myanmar, Nepal, northern Pakistan, northern Thailand and Viet Nam.

7.10.2.4 Habitat: The monkey is observed in all around the river and road side for foods. Because they are found in such a broad geographic area, it is difficult to concisely summarize the types of habitats rhesus macaques populate. In the most general terms, they are found in both tropical and temperate habitats including semi-desert, dry deciduous, mixed deciduous and bamboo, and temperate forests as well as in tropical forests and mangrove swamps, usually at elevations from sea level to 2000 m (6561 ft), but they have been seen at elevations up to 4000 m (13,123 ft) in China and northeastern India. Rhesus macaques are also found in areas close to humans in urban settings or near cultivated fields. The habitat includes primary and secondary tropical and dry evergreen forests and bamboo forests. In India, rhesus macaques are found in flat, cultivated areas, where agricultural fields dominate the landscape and in the plains, foothills and mountainous regions where habitat includes cultivated fields, tropical forests and dry, deciduous forests. During the hottest parts of the year, groups in the Himalayan region of India migrate to higher elevations where cooler temperatures persist throughout the summer months. In urban areas of India, they are found on roadsides, canal banks, in railway stations, villages, towns, and temples. It is estimated that 48.5% of rhesus macaques in northern India live in villages, towns, cities, temples and railway stations where they are in close and frequent contact with people at all times. About 37.1% of the population lives with some human contact on roadsides and canal banks and only 14.4% of the rhesus macaques in the northern part of the country live in isolation from humans and do not rely on them at all for food.

7.10.2.5 Ecology: Rhesus macaques are exceptionally adapted to coexisting with humans and thrive near human settlement, in both urban and agricultural areas. It is impossible to characterize their natural diet without considering the impact of humans. Because they are found in higher densities in areas of human disturbance compared to forests, in some areas rhesus macaques derive, both directly and indirectly, a substantial part of their diet from human activities. In fact, up to 93% of their diet can be from human sources, either from direct handouts or from agricultural sources. Rhesus macaques are omnivores and feed on a wide array of plant and invertebrate products. By raiding crops, they have access to a huge variety of cultivated fruits and vegetables, and in highly urban areas, they forage by picking through garbage. Throughout their range and especially in India, they inhabit temples and are fed as a form of worship by local people. Some of the most common foods given to rhesus macaques in temples include bread, bananas, peanuts, seeds, other fruits and vegetables, and assorted miscellaneous foods like ice cream and fried bread. In less human-influenced areas, they focus on fruits, flowers, leaves, seeds, gums, buds, grass, clover, roots, bark, and they supplement their diet with termites, grasshoppers, ants, beetles, and mushrooms. Rhesus macaques also eat bird eggs, shellfish, and fish. During the driest parts of the year, they may even eat the dirt from termite mounds. At higher elevations, where seasonal snowfall restricts food sources, rhesus macaques are restricted to eating the leaves of evergreen trees and bark as well as a

few berries that grow in winter. During the winter months at high elevations, rhesus macaques suffer from food and climate stress and have higher levels of mortality if the cold weather lasts too long.
Home range size and day range length is dependent on habitat in rhesus macaques. Temple, village, and urban rhesus macaques have small home ranges between 0.01 and 3.0 Km² (0.004 and 1.16 mi²) in size because they derive almost all of their food from human visitors leaving offerings, crop raiding, or opportunistic foraging on human byproducts. The day ranges for these urbanized areas are variable but the average is about 1.15 Km (0.715 mi). In more forested areas of India, home range size can be up to 15 Km² (5.79 mi²), but rhesus monkeys only move, on average, 1428 m (0.887 mi) per day. Both climate and season affect the timing of the onset of daily activities as well as the type of activities undertaken. In the warmest times of the year, rhesus macaques spend more time resting than during more temperate months. Home ranges of rhesus macaques overlap and groups have high frequencies of intergroup contact, which is characterized by generally mild social interactions. Across all habitat types, feeding and resting are the major activities of the rhesus macaques' day and they spend the rest of their time travelling, grooming, playing, and other activities. Potential predators of rhesus macaques include raptors, dogs, weasels, leopards, tigers, sharks, crocodiles, and snakes

7.10.2.6 Social Organization and Behavior: Rhesus macaques live in large, multi-male/multi-female groups that have an average of 10 to 80 individuals, regardless of habitat type. Groups may number in the hundreds in mountainous areas and areas of high human food subsidization or agricultural habitats. Rhesus groups are characterized by female philopatry and male dispersal; females remain in their natal groups and form dominance hierarchies according to their matrilineal kinship while males emigrate from their natal groups at the beginning of the breeding season shortly before puberty, and may transfer groups throughout their lives in search of mating opportunities. Female rhesus macaques very rarely leave their natal groups. Among females, rank remains relatively stable over a lifetime and is passed on to female offspring. Each female rises in rank above her older sister, and therefore when old, high-ranking females disappear or die, they are usually replaced by their youngest daughters. One of the benefits of dominance for a rhesus macaque is priority access to food and space. High-ranking females have greater access to feeding sites because they displace lower-ranking females and they are less likely to be disturbed during feeding compared to subordinates. Because they have cheek pouches, though, low-ranking females do not consume less food than high-ranking females, they simply store as much as they can into their cheek pouches and then move away from the group to eat. This method of feeding is more energetically expensive than remaining in the same area while feeding, so low-ranking females may be consuming the same amount but using more energy to consume it. Dominance status and rank among males is not stable over a lifetime, compared to female rhesus macaques. Immature males inherit the rank of their mothers, but as they mature, their status changes based upon a combination of social and aggressive skills. Aggression is sometimes used to establish and reinforce social position, though, and aggressive behavior seen in macaques includes slapping, pushing, pulling fur, tail yanking, and biting as well as other non-contact behaviors such as displays and threats. Once males attain dominant status, they enjoy this rank for an average of two years before being displaced by another male.

a. Reproduction: Females reach puberty around age three while males are sexually mature by age four. The ovarian cycle lasts for 28 days and is characterized by the darkening of the skin surrounding the anogenital region accompanied by menstruation. Estrus lasts for eight to 12 days, with the day of ovulation occurring at the midpoint of the estrus period. Females have increased

sexual activity during ovulation, exhibiting the highest number of copulations seen during the ovarian cycle. Females reproduce from three until about 20 years of age. Males reach puberty between three and 3.5 years of age but do not reach adult body size until about eight years old. Though males are capable of reproducing by age four, they are not reproductively successful until after age eight, or when they reach adult size. During this time between becoming sexually mature and when they begin to mate, young rhesus macaques are learning the social skills, including fighting ability that will influence their success throughout their lives. Both males and females reach sexual maturity sooner in captivity.

There is marked birth seasonality in rhesus macaques, with the majority of mating occurring in October through December and births coinciding with the end of the rainy season, or during the period of highest food abundance. High-ranking males have more opportunities to mate with females than low-ranking males, but do not always sire a disproportionate number of infants. Lower-ranking males may have similar reproductive success compared to high-ranking males because they are new immigrants and are more attractive to females because of this. From one breeding season to the next, females will drastically reduce the amount of mating they do with familiar males and over a period of three years, they try not to mate with any familiar males given the opportunity to mate with unfamiliar males. During the breeding season, females enter into consort ships with one or more males. An individual female will spend longer amounts of time in contact with, grooming, and mating with these males. Males and female rhesus macaques are promiscuous breeders, mating multiple times with multiple mates. Both males and females initiate these consort relationships and competition for access to mates is related to the high levels of aggression seen in rhesus macaque groups during this time of year. Gestation lasts 164 days in rhesusmacaques and the interbirth interval is between 12 and 24 months. If a female does not have a successful pregnancy or her infant dies in the first year of life, she is more likely to give birth the following season than a female who successfully rears an infant.

b. **Parental Care:** While the majority of parental care is the responsibility of the mother, rhesus infants are also handled by close female relatives and protected by adult males. In the first few days, the infant is carried ventrally and protected from other group members by the mother. Ventral clinging is the position most frequently adopted during travel for the first four months of life, but rhesus infants begin to ride dorsally for short periods during the second week. By six weeks of age, locomotor skills are developed enough for the infant to move independently, but they do not move very quickly at this age, and if the mother is travelling too quickly, she will pick up the infant and carry it. Some young rhesus is carried until they reach one year of age, though it is rare. During early infancy, rhesus macaques nurse exclusively for the first two weeks of life, after which they begin to experiment with solid food. At about four months of age, rhesus mothers begin to resist the attempts of their offspring to nurse, and young rhesus macaques are fully weaned by the birth of their next sibling. Exploration off of the mother begins as early as five days old and continues to increase so that by the third week, the infant breaks physical contact with the mother as frequently as possible. During this time, juvenile and adolescent females are intensely interested in the infant and will approach the mother and groom her in an attempt to get near the infant. When an infant is off the mother, a young rhesus female will touch the infant and try to carry it, but the mother is watchful of this interaction and any sign of distress from the infant may elicit an aggressive response from the mother towards the younger female. Mother rhesus macaques show differential investment in their offspring depending on the sex of the infant.

c. **Communication:** Vocal and gestural communication is important in rhesus macaques. Facial

expression, body postures, and gestures are all forms of non-vocal communication among rhesus macaques and are important in interactions between individuals at short distances. One facial expression that is seen throughout macaque species and is one of the most common expressions in rhesus macaques is the silent bared teeth face. Among rhesus macaques this is seen between individuals of differing rank with the lower-ranking or submissive animal performing the silent bared teeth face to the dominant animal. Another common facial expression used in dominance interactions include a fear grimace accompanied by a scream, heard in frightened animals and used to appease or redirect aggression. Dominant animals use a silent open mouth stare as a threat to other animals; this is accompanied by the tail sticking straight out behind the body with the monkey standing quadrupedally. Another common visual communication signal is the present rump, where the tail is raised and the genitals are exposed to the more dominant individual. Vocalizations of rhesus macaques include coos and grunts, which are commonly, heard expressions during group movement, during affinitive interactions, and when one animal approaches another to groom. Warbles, harmonic arches, and chirps, are heard in the context of finding high-quality, rare food items. The most common alarm call heard among rhesus macaques, the shrill bark, is emitted in threatening situations and is consists of a single, loud, high-pitched sound. Vocalizations made during aggressive interactions include screeches, screams, squeaks, pant-threats, growls and barks. Infants have their own repertoire of vocalizations which include geckers, which are harsh staccato sounds heard during weaning conflict. It is usually heard along with convulsive jerks of the body, and looks and sounds much like a human child's temper tantrum.

7.10.2.7 Threats: The following threats may be possible:

a. Human- Induced Habitat Loss and Degradation: Problems of habitat destruction do not seem to affect rhesus macaques like other primates; they are well adapted to life near humans and can thrive in highly disturbed environments. Because of the cessation of export and the rhesus macaque's adaptability to human-disturbed environments, the Indian population is increasing. This increase may not necessarily be positive because in areas where rhesus macaques are in contact with humans they are menaces; threatening or biting children and the elderly, stealing food from people, raiding crops and damaging property leading to decreased tolerance and persecution of rhesus macaques in some areas. This is one rare case where the destruction of habitat and replacement with agricultural land has led to an increase in the number of primates, but at a serious social cost. These problems will only be exacerbated if habitat destruction does not stop and will likely force government control measures, like trapping and relocation, to decrease the population for the health and safety of humans in India.

b. Harvesting (hunting/gathering): Rhesus macaques were once seriously threatened, by the rate of capture and export for use in biomedical research. In the 1960s, often 50,000 juvenile rhesus macaques were trapped and shipped from India per year, crippling the population growth of rhesus in India. In 1978, a total ban on rhesus export was the first step in re-establishing the population, and the numbers in India have more than doubled since the 1970s. There are still some rhesus macaques trapped and used for research within India, but the effect of the population is negligible compared to previous levels of usage.

c. Persecution: In orthodox Hindu tradition, monkeys are sacred animals to be revered and protected, but as humans and animals begin to compete for similar resources or monkeys become nuisances, causing not only property damage, but also injury to humans, the traditional bond is degraded. In some areas of India, rhesus macaques are subjected to stoning, trapping, and shooting

because they are such pervasive, destructive pests. Over 95% of the local people in one region of India felt harassed by the rhesus macaques either because of bites, stealing of household items, or other reasons. Though their populations continue to expand, the deterioration of traditional beliefs that leads to their persecution could have an effect on rhesus macaque conservation in the future. If the conservation ethic connected to deifying rhesus macaques is lost, it will be difficult to rekindle in the future if the population stops growing or decreases.

d. ***Conservation:*** The root cause of conflict between humans and rhesus macaques is the eradication of natural habitat, forcing monkeys into proximity with humans. Though they excel in human-disturbed environments, rhesus macaques living in forested areas are usually healthier, eating a better diet and in overall better condition than urban macaques. Restoration of their natural habitat in densely populated areas may decrease conflict, but given that they will likely move into areas where humans make food readily available, this may not be a permanent solution. In the long term, management will be necessary to conserve healthy populations of rhesus macaques and prevent persecution by humans from being a threat to their survival. Translocation of large numbers of monkeys may be one management option to remove rhesus macaques dependent on human sources of food.

Mitigating human-rhesus conflict is necessary to prevent the change in attitudes towards rhesus macaques that could lead to further persecution and population decline. Trans locating particularly problematic rhesus monkeys or entire groups has been successful, but is not a widespread option because there simply are not enough suitable forest patches in which large numbers of rhesus can live. Perhaps innovative engineering could lead to monkey-proof containers in which people can store household items and food and prevent local rhesus from raiding their kitchens. Deterrent fencing or other protective measures could also be established around gardens and agricultural crops to prevent rhesus macaques from crop raiding. Decreasing opportunities for conflict between local humans and rhesus macaques will lead to maintained tolerance of these monkeys that have nowhere to retreat from human encroachment.

7.10.2.8 Education and Awareness: This is the most important aspect of wild life conservation. People will be educated regarding the importance of wild life conservation through mass publicity by installing sign-boards, conducting audio visual classes and distributing literature in respective villages in the buffer zone. Experts in the field of wild life conservation will also be invited to deliver talks through slides.

7.10.2.9 People Participation: With the help of the local people and employees of the project and project proponents watch will be kept on the wild life as well as illegal tree felling. Forest and police department will be informed if such incident occurs, to take legal action against the offenders. For this they will be trained for motivation.

7.10.3. Conservation plan for Common Mongoose (*Herpestes edwardsi)*

Classification
Kingdom: Animalia
Phylum: Chordata
Class: Mammalia
Order: Carnivora
Family: Herpestidae
Genus: *Herpestes*

A mongoose is a member of the family of small cat-like, bold, agile carnivores. The word mongoose is derived from the Marathi word mangus. Mongooses have a tapered head, long body, and short legs. They are typically gray or brown with long, coarse hair that bristles when the animal is disturbed. The claws, used for digging burrows, are quite strong and do not retract.

7.10.3.2.Conservation Status: The conservation status of a group of organisms (for instance, a species) indicates whether the group still exists and how likely the group is to become extinct in the near future. The mongoose falls in the category of LC i.e. Least Count as per IUCN and Schedule II (IWPA)

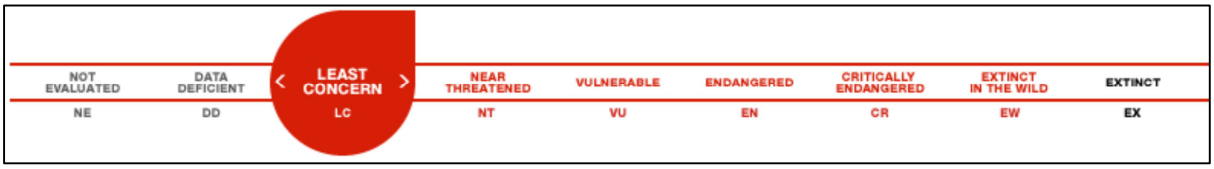

Figure 7.16: Conservation Status as per the IUCN categories

IUCN: Others (LC) ver 3.1
IWPA: Schedule II.
CITES: Appendix-III.

7.10.3.3 Geographical Distribution: Mongooses are widely distributed in Asia, Africa, the Caribbean, and southern Europe.

7.10.3.4 Habitat: Mongooses live in a variety of habitats, but most often forests, open woodland, savanna, semi-desert and desert. They can inhabit ground burrows, hollow trees, or crevices among rocks or roots.

7.10.3.5 Food: Mongooses are clever predators. They eat small mammals, rodents, birds, chickens, eggs, reptiles, lizards, amphibians, crabs, snails, earthworms, insects, and sometimes fruit. However, they will also eat carrion. Some species will attack and kill even the largest and most poisonous snakes even king cobras to whose poison they are not immune, but typically avoid the cobra and have no particular affinity for consuming their meat. Mongooses are also known to crack eggs by throwing them against a rock or onto the ground.

7.10.3.6 Behaviour: The animals are usually active during the day, but some species are nocturnal. They can live alone, in pairs, or in large groups, depending on the species. Litter size is two to four young. habitats from forests to inhabited areas.

7.10.3.6 Life span: Mongooses live about 7 to 12 years in the wild, but in captivity they may live more than 20 years.

7.10.3.7 Threat: Their behaviour and small size (they weigh less than one kilogram) makes them very vulnerable to larger carnivores and birds of prey. Their greatest threat is human use of toxic agro-chemicals in farming areas. Some species of mongoose can be easily domesticated, are fairly intelligent, and can be taught simple tricks, so they are often kept as pets to protect the home from vermin. However, they can be more destructive than desired; when imported into the West Indies for the purpose of killing rats and snakes, they destroyed most of the small, ground-based fauna. For this reason, it is illegal to import most species of mongooses into the United States, Australia and other

countries. Mongooses were introduced to Hawaii in 1883, and have had a significant impact on native species. Mongooses are sometimes referred to as the most dangerous animals on the planet for this reason.

7.10.3.8 Conservation: The people living in the surrounding area and employee of the project would be motivated towards the protection of the animal. Motivation will lead to timely information to the concerned authorities about any threat to wild life or any cases of pouching/hunting.

7.10.3.9 Education and Awareness: This is the most important aspect of wild life conservation. People will be educated regarding the importance of wild life conservation through mass publicity by installing sign-boards, conducting audio visual classes and distributing literature in respective villages in the buffer zone. Experts in the field of wild life conservation will also be invited to deliver talks through slides.

7.10.3.10 People Participation: With the help of the local people and employees of the Project watch will be kept on the wild life as well as illegal tree felling. Forest and police department will be informed if such incident occurs, to take legal action against the offenders. For this they will be trained for motivation.

7.10.4 Sign-Boards: Sign-boards will be in English as well as in local language.

7.10.5 Inference: The conservation plan suggested here is for scheduled fauna (Animal and Bird) will be implemented by the mining lease holder and the budgetary provision is discussed and given in detail for the implementation of the same in the area. It is very important to conserve the scheduled fauna in the area by the local authority as well as by the forest officials. People are not aware about the wildlife and protection of wild animals. There is an urgent need of education and awareness to local people about the wild life and their importance.

7.11 CORPORATE ENVIRONMENT RESPONSIBILITY

Corporate environment responsibility (CER) refers to responsibility of a company/ project proponents to ensure positive impact on environment, consumers, employees, communities, stakeholders and all other members of public sphere. It is a new concept in the mining sector and the companies are still going through the learning curve. The CER activities are increasingly being taken up by the project proponents not only as fulfilling of mandatory provisions but also for the formation and or enhancement of brand image. Besides the above, CER is seen more as a responsibility towards environment and society rather than a business promotion activity. It is the need of the day for expansion of occupational welfare. The project proponent of the upcoming sand mining project in the village has already identified the activities, which are proposed to be undertaken for the benefits of the local community. This will not only improve the socio-economic status of the people but also enhance the reputation of the project proponent among the general public. The project proponent proposes to spend Rs. 3.08 lakhs on activities as per the corporate environment responsibility.

This is the proposed cost CER Plan, Activities and actual cost will be finalized as per the Actual need of the area. (ON THE BASIS OF NEED BASE ASSESSMENT SURVEY)

Table 7.22: Annual Budget Allocation for CER Activities

S. No.	Particulars	Activity	Budget Allocation
1.	Drinking Water	Installation of Hand pump nearby villages and Schools	80,000
2.	Infrastructure	Solar street light nearby villages	70,000
3.	Sanitation System	Toilets for nearby Village for Women	1,20,000
4.	Health and Medical facilities	Mobile/Medical camps of General Health Check-up will be conducted.	38,000
Total Proposed Annual CER Cost			**Rs. 3,08,000 (3.08 Lakhs)**

7.12 CONCLUSION:

The implementation of the mining project will generate both direct and indirect employment. Scientific mining of minor minerals with proper will also reduce flooding of river banks, destruction of standing crops, land and property to a great extent. Proper training to the workers will reduce the risk of occurrence of any on site hazard. The project will also provide impetus to industrialization of the area. At present agriculture is the main occupation of the people as most of the population depends on it. With the implementation of the proposed mining project the occupational pattern of the people in the area will change making more people engaged in industrial and business activities rather in agriculture.

The study area is still lacking in education, health, housing, water, electricity etc. It is expected that same will improve to a great extent due to proposed mining project and associated industrial and business activities. It is therefore suggested that extraction of minerals should be taken up on regular basis during the post monsoon period. This will dredge the river bed on regular basis, regulate the course of the river and check flooding of the catchment area.