NEPAL'S FIRST CHAIN-FREE HATTISAR

National Trust for Nature Conservation (NTNC)
Biodiversity Conservation Center (BCC)
Chitwan, Nepal

Initiative of NTNC – Biodiversity Conservation Center
In collaboration with Department of National Parks and Wildlife Conservation
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PROJECT REPORT

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SUMMARY

Elephants have been chained in the Indian Sub-continent since the beginning of the captivity which has many adverse impacts on the elephant health and welfare. Alternative practice of keeping elephants in the chain-free corrals is the better option for both physical and psychological health of the elephants. For the first time in Nepal, a chain-free elephant corral as pilot was constructed at Hattisar of NTNC-BCC. Observing the multiple benefits and encouraged from the preliminary findings, the pilot project was extended and all the elephants of NTNC-BCC became chain-free on January 10, 2013. In the past they were hobbled by both front legs, chained under a shelter that prevented natural posturing and healthy physical activity for an average of fifteen hours they spend in the hattisar each day. Now, living in the chain-free corral, each elephant is free to move at will and engage in natural behavior such as dusting, foraging, sleeping, bathing, walking, and playing. Chain-free corral is solar powered with hot wire of 12V DC electric current which is sufficient to keep elephants away while without any harm to the elephants. Elephants are put in separate compartments with individualized switching system.

A. BACKGROUND

Since the beginning of the captivation of the elephants they have been treated very roughly, and were chained for long hours every day. In most of the parts in Asia where there are thousands of captive elephants most of them are chained. Current practice of long term chaining has serious adverse effects on the health and wellbeing of elephants. Unnaturally hard surfaces and poor hygiene in stables result in foot bruising, and overgrown and decayed nails and pads which play host to infection that spread to the toe bones, resulting in osteomyelitis, a painful and ultimately fatal disease.

The alternative practice of putting elephants in an enclosure without chains is proven as the better option for captive elephant management. By maintaining elephants chain-free, different diseases caused by poor hygiene in stables can be avoided improving elephant welfare and actually extending their life.

In the wild, elephants live in groups and display complex social behavior. The natural grouping is a family unit, and the social bonds among the members of the family are very strong. A recent study on captive-held elephants found that the limited opportunity for social contact was the principle factor in the female Asian elephant's stereotypical behavior.

Isolation or separation from companions leads to complex changes in behavior, including a decreased interest in surroundings, stereotypic behavior, increased heart rate, vocalizations and higher levels of physiological stress.

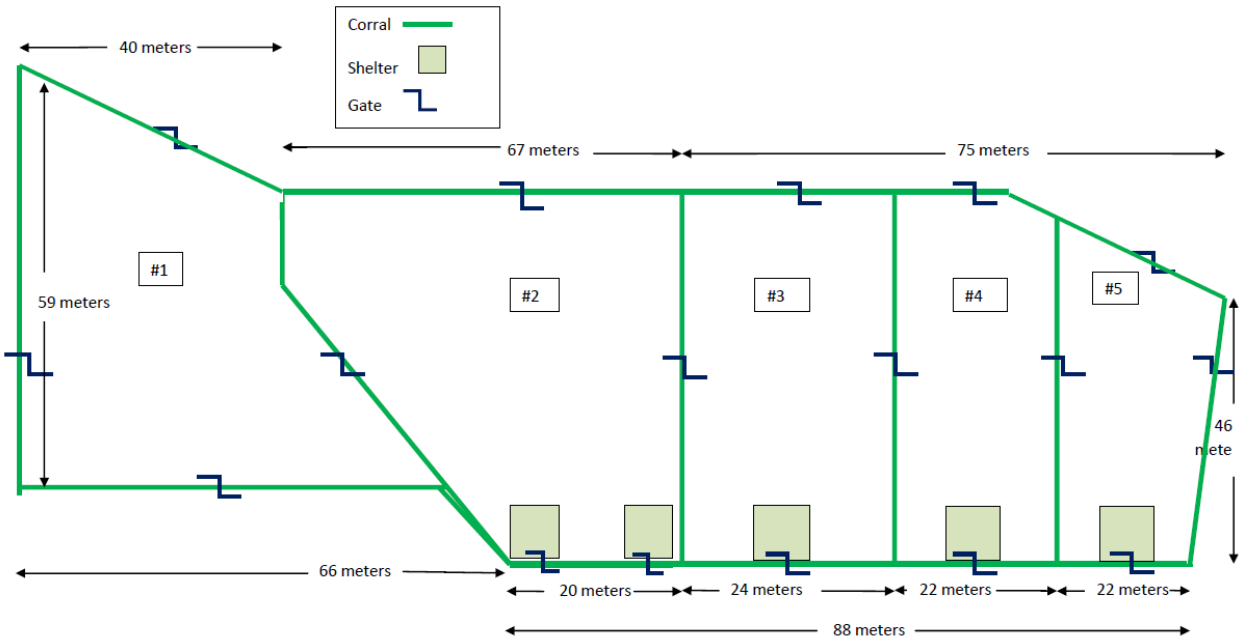
B. OBJECTIVES

The overall goal of the project is to ensure the welfare of the captive elephants. The specific objectives are

- Reduce or eliminate the occurrence of stereotypical behavior increasing physical activity
- Encourage engagement in natural, species-specific behavior, such as foraging, dusting, walking and exploring
- Eliminate injuries, joint damage and low-level long-term stress caused by chaining
- Improve foot health
- Maintain elephant's compliance with mahout authority

C. Design of the Corral

Six elephants, ranging from seven months to seventy-plus years, currently live in five interconnected chain-free corrals designed to improve their welfare.



The elephants spend an average of fifteen hours in the hattisar each day. In the past they were hobbled by both front legs, chained under a shelter that prevented natural posturing and healthy physical activity. In the chain-free corral, each elephant is free to move at will and engage in natural behavior such as dusting, foraging, sleeping, bathing, walking, playing and, in the case of the related family of Man Kali, Prakriti Kali, her eight-year-old daughter, and Hem Gaj, her seven-month-old son, engage in normal social behavior.

C.1. Corral construction and operating system

The corral's operating system is a solar-powered energizer with a double battery back-up. Three hours of sunlight is required to keep the batteries charged for 10 days.

Specifically designed for wildlife, the corral administers a mild shock upon contact. Due to the pulsating current, it is virtual harmless. Being highly sensitive to the clicking sound of the pulsating current, most elephants avoid the fence without ever coming into contact with it.

The chain-free hattisar consists of five interconnected corrals on approximately two and one half acres of open and wooded land.

The corrals stand seven feet tall, constructed of rust-free steel posts and six strands of high tensile wire.

Each post is encased in a protective tope.

Each corral has a front, back and side gate for ease of access for cleaning, feeding, moving elephants in and out

and providing socialization opportunities.

The energizer and batteries are housed inside the mahout residence; two solar panels that charge the batteries are attached to its roof.

Each corral is equipped with a cut-off switch enabling independent operation.
This design has proven successful in many areas of Asia to prevent entry by wild bull elephants.

All corrals have a custom-made concrete water trough that provides clean water. Fresh water is stored in an elevated water tank and troughs are filled by gravity feed.

Healthy trees are an important component of the chain-free corrals providing shade, browse, and a natural scratching surface.

To prevent serious damage to trees from elephant tusking activity, tree protectors were built around select trees.

D. PROGRESS AND PRELIMINARY RESULTS

Each elephant spends approximately 15 hours each day in the chain-free corrals. The remainder of their time is spent in Chitwan National Park engaged in grass collecting, anti-poaching patrols and conservation work and jungle safaris.

Upon first introduction to the chain-free corrals, each elephant calmly explored the area, foraging, dusting and scratching on trees. Each evening they dig in the soft dirt of the forest, creating a comfortable sleeping spot; none return to the stable area to sleep.

The related family of Man Kali, Prakriti Kali and Hem Gaj are housed together. They bonded immediately when united in the chain-free corral and continue to exhibit healthy elephant behavior, with Prakriti Kali assuming the role of big sister to Hem Gaj.

A survey was conducted to track the behavior of the elephants toward the mahouts and drivers. Mahout compliance has not changed. Each elephant continues to respond favorably to mahouts and drivers— both inside and outside the corral—at the same high level as before being released from chains.

Photographic records are being kept to track foot health and bone and joint conditions.

Collectively, the elephants' behavior represents a substantial improvement in natural activity and reduction in stress and stereotypical behavior. To document the positive effects of the chain-free corrals following parameters are recorded.

1. ETHOGRAM

In order to identify the effectiveness of the chain-free corral, an ethogram spreadsheet was created to track a list of natural and stereotypical behaviors, including walking, eating, dusting, playing, exploring, drinking, socializing, sleeping and exhibiting stereotypic behaviors.

2. HUSBANDRY PROTOCOL

Manure removal and corral cleanliness standards were established to ensure the highest level of hygiene.

3. MANAGEMENT PROTOCOL

Training and management practices for inside the corral were established to give elephants a sense of freedom and security.

4. FEEDING PROTOCOL

Changes to traditional feeding practices were established to promote activity and alleviate boredom.

E. CONCLUSION

The goal to eliminate stress from chaining and the resulting stereotypic behavior is realized. Adherence to the new feeding protocol ensures that both Prakriti Kali and Mel Kali do not engage in stereotypic, food anticipatory behavior. Since being introduced into the chain-free corral hattisar, all elephants engage in appropriate, beneficial, species-specific behavior; respond favorably to their mahouts; and appear to be calm and comfortable in their new environment, indications that the project is meeting its goals and objectives.

F. ACKNOWLEDGEMENT

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