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FROM: Carol Buckley, Founder, Elephant Aid International, USA

TO: Dr. Shant Raj Jnawali and Naresh Subedi

**Elephant Foot Care and Mahout training provided by Elephant Aid International:
Summary of Services Provided, Outcomes and Recommendations**

Over a five-week period from March 7 through April 12, 2011, Elephant Aid International (EAI) undertook a collaborative effort to improve the foot health of elephants in Nepal. More than sixty elephants received foot health evaluations and foot trimming. Over half of the elephants who received service are under the care of National Trust for Nature Conservation (NTNC) and the Department of National Parks and Wildlife Conservation (DNPWC).

This report addresses

- the general condition of elephant foot health
- the steps taken to remedy problems
- recommendations for improved and continued foot health for elephants in the serviced area

The recommendations provided are intended as a tool to maintain improved elephant foot health and overall welfare.

Services

Elephant Aid International provided services for:

National Trust for Nature Conservation, Biodiversity Conservation Center, Sauraha, Nepal

Department of National Parks and Wildlife Conservation, Nepal

- Elephant Breeding Center, Sauraha
- Sauraha Post
- Khagendrainali Post
- Kasara Post
- Narayani Post
- Baghmara Post

Private elephant owners, Sauraha, Nepal

The work was conducted under the direction of Dr. Shant Raj Jnawali, NTNC; Naresh Subedi, NTNC; and Dr. Kamal Griry, DNPWC, with assistance from veterinary technicians Kiran Rijal and Chitra Khadka.

Services and supplies provided included:

- Elephant foot trimming manual
- Foot trimming tools
- Evaluation of the overall condition of the resident Hattisaar: construction, drainage, substrate, shade, waste removal, sanitation and the location and condition of leg chains and hobbles.
- Elephant foot health evaluation

- Complete pad, nail and cuticle trimming
- Training of two veterinary technicians in the most up-to-date methodology of foot trimming
- Individualized tutoring for mahouts on their elephants' feet
- Follow-up re-examinations of elephants experiencing serious foot health issues
- Reports to NTNC, DNCWP, and Private elephant owners, including evaluation, photographic documentation and recommendations for improved foot care

Findings

The elephants who spend their days on natural substrate in the National Forests with access to live vegetation, under the cover of the forest canopy during the hottest part of the day, with limited weight of one or two mahout riders, have healthier feet than their counterparts who provide a full day of safari rides and walk on hot asphalt in the heat of the day. In the majority of cases, the nails and pads of the NTNC and DNCWP elephants were healthier than that of the privately owned elephants.

Forest Dwellers

The NTNC and DNCWP elephants spend the majority of their day in the forest and do not walk on pavement. Generally speaking, their nails and pads were less overgrown and the nails were supple, not too dry, with few cracks.



Chronic nail problems, such as cracks, abscesses and bacteria growth, were limited to bulls and geriatric cows.



Village Dwellers

Privately owned elephants spend all day providing tourist safaris, heavy with riders. Additionally, most make multiple trips from their stable to the safari staging area every day on hot asphalt.



Without exception, these elephants displayed reduced energy levels and poor foot health, including seriously overgrown pads, nails and cuticles, and lameness. They had bacteria growth in their pads and nails, cracked nails and foreign objects imbedded in their pads and nails.



The major factors contributing to the poor foot health of this group of elephants are their time spent hauling heavy loads (tourists), walking on asphalt, poor diet and unsanitary stable conditions.



Overview: NTNC elephants

Foot health in this group of elephants was superior to the other groups. Although their feet were in need of trimming, their cuticles, pads and nails were healthy and supple. With the exception of one individual whose front pads were quite overgrown, the only concern was that in all cases the nails were slightly overgrown with some superficial cracks. This overgrowth is natural for elephants living in captivity and can be addressed with an enhanced foot care program.



Recommendations

- Establish a foot care program with regularly scheduled foot examinations and trimming to ensure that pads and nails remain healthy.
- Monitor Sweetie Kali for thinning pads.
- Provide more time off hobbles to allow natural posturing and movement, which have a direct impact on the wear pattern on the pads and nails.

Overview –DNCWP elephants

Foot health in this group of elephants was fairly consistent, with overgrown nails, superficial nail cracks, and, in some cases, pitted pads. The adult males and geriatric females displayed more serious problems with grossly overgrown and cracked nails that resulted in nail decay. The overgrowth of nails is natural for elephants living in captivity and can be addressed with an enhanced foot care program.



Recommendations

- Establish a foot care program with regularly scheduled foot examinations and trimming to ensure that pads and nails remain healthy.
- Monitor adult males and geriatric cows to prevent their nails from becoming necrotic.
- Allow the elephants to spend more time without hobbles -- especially young and geriatric elephants -- to allow for natural posturing and movement, which has a direct impact on the wear pattern on their pads and nails.

Overview – Privately owned elephants

With few exceptions, this group of elephants has serious foot health issues including:

- grossly overgrown and decayed nails
- excess wearing on heels of front and back feet
- chronic nail splits
- severely overgrown, cracked and dry cuticles
- foot and nail abscesses
- dry, cracked, bacteria-covered nail and pad tissue
- deep pitted and rotting pad cracks
- stones, pieces of wood and metal objects embedded in the nails and pads



Most of the privately owned elephants share common conditions: severely overgrown nails; dry, cracked pads, nails and cuticles; deeply bruised pads that range from very thin to overgrown; and bacteria growth in the pads and nails and between the toes. The advanced degree of the decay is harmful to the elephants, causing pain and lameness. Left untreated, the foot infections can become systemic and even life threatening.

In addition to a lack of basic foot care, the other contributing factors to the poor foot health in this group of elephants are:

- overall unsanitary living conditions
- poor drainage at stable
- stockpiling elephant waste
- poor nutrition
- walking on hot asphalt
- stabled on concrete, brick and stone
- being overworked
- stress from abusive handling

Recommendations

- Create formalized guidelines to address sanitation, diet, duty, mahout handling, veterinary care and foot care.
- Establish a foot care program with regularly scheduled foot examinations and trimming by a professional to ensure that nails and pads remain healthy.
- Improve the sanitation of the stables, regularly removing contaminated dirt and replacing it with clean fill dirt.
- Limit time spent walking on asphalt, especially in the heat of the day.
- Provide soft earthen floors in Hattisaar
- Reduce the weight load of safari rides and the number of hours worked for young and geriatric elephants.
- Provide nutritious food, including live vegetation, such as grasses and browse.
- Hatti lia na pita.

Conclusion

A comprehensive foot care program is a vital component of an effective captive elephant management plan. Healthy feet are key to an elephant's mobility and ultimately his/her longevity. In the case of working elephants, foot health plays an important role in physical performance and psychological attitude. By addressing diet, stable sanitation, work load, mahout handling and foot care, foot health is enhanced, resulting in healthier, more contented elephants.

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