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## Elephants of the Pink City, Jaipur, India: A Study of the Captive Elephant Welfare and Management Practice in Ex-Situ Environmental Conditions

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# Elephants of the Pink City, Jaipur, India: A study of the captive elephant welfare and management practice in ex-situ environmental conditions



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## Abstract

Although the arid Rajasthan desert is far from native elephant habitat, captive elephants (*Elephas maximus*) are managed by some private owners in Jaipur. The semi-arid Jaipur experiences a very hot summer and an extreme cold winter. Along with this, improper management practice and tremendous work load has changed the captive elephant normal life drastically. This study aims to identify the gaps in the management practice of captive elephants. A total of 72 captive elephants were studied in Jaipur. Result showed deviation in normal condition: a restricted diet, no free ranging, and lack of mobility (caused stereotyped behaviour) had adversely affected the captive elephants life. In addition, 98.6 % of elephants had sole crack, 61.1 % had nail crack, 77.8 % had corneal opacity, and 4.16% had corneal ulceration. All the captive elephants had some injuries on their body and forehead. Furthermore, the elephant keepers lack in basic knowledge, their mean duration of stay with the elephants is 5.36 years and 27.0% elephant handler needed training for handling elephants. Additionally, the mahouts are poor, 97.1% are illiterate and receive approx. \$350-430 annually albeit have 3-12 persons in each family. They are sometimes addicted to drugs and alcohol that negatively effects the elephants life.

## Introduction

Elephants being not an indigenous species of Rajasthan were brought from different parts of the country for the purpose of hunting, processions and war activities during the Mughals empire but in 21<sup>st</sup> century they are mainly used for entertaining tourists (Madhulal, 2008).

Elephants under direct human control are said to be in captivity. Albeit the word “domestic” and “domesticated” have been used for these captive elephants but it is allege for a wild caught species (Riddle & Stremme, 2011). Hence, it is conspicuous that elephants experience extreme change condition when they are wild-caught and maintain in captivity (Varma et al., 2008).



## Objectives

- Documentation of the individual captive elephant profile and understanding the captive elephant management practice in Jaipur.
- Measuring the socio-economic and professional status of elephant handlers (mahout/ kavadi) as well as their relationship with the animal in terms of their experience.

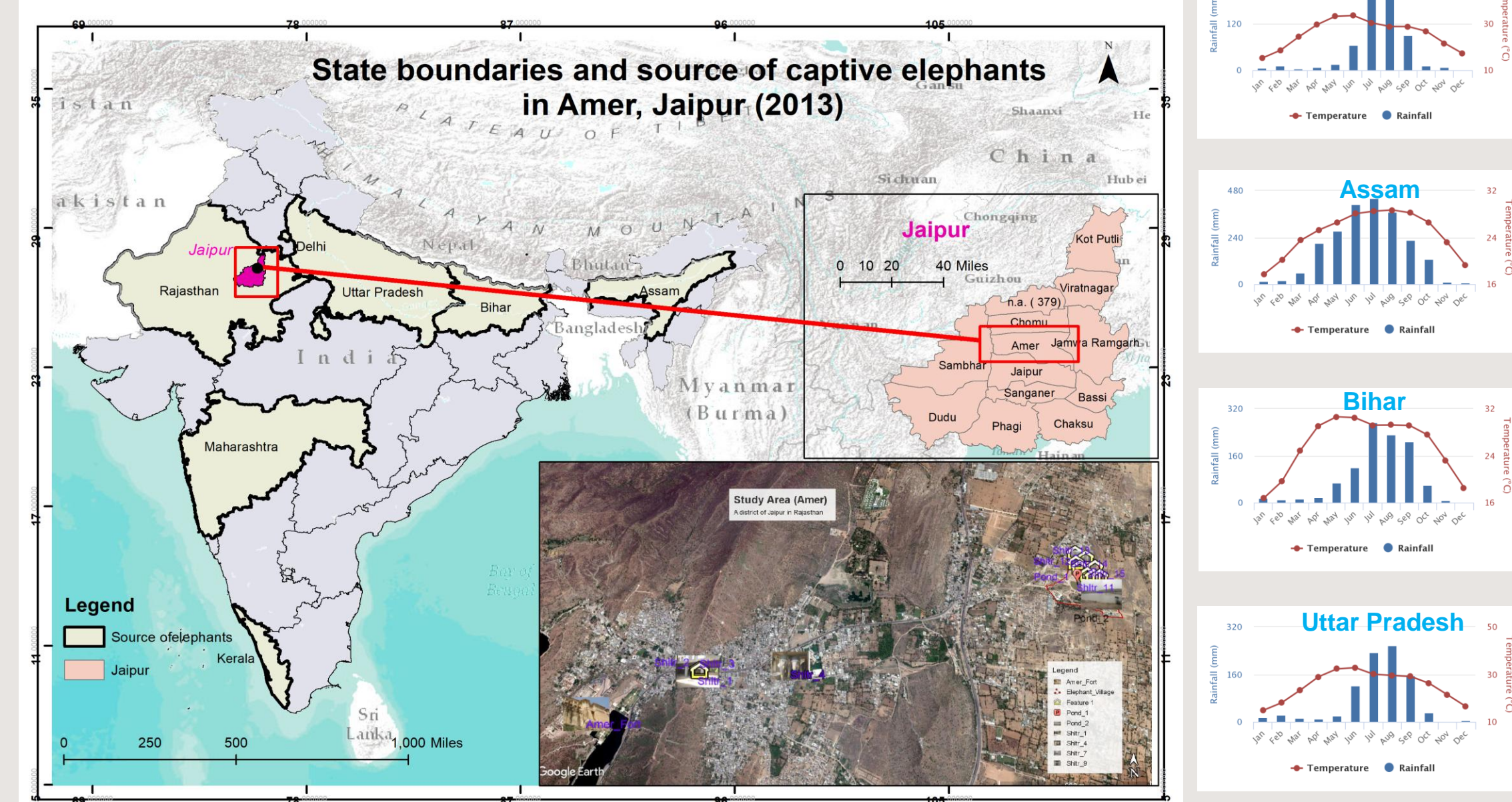
## Methodology

Data was collected through daily observation and conducting interviews with mahout and elephant owner in the institution.

Welfare status of the captive elephants was measured by comparing physical/ physiological/ social and psychological features in captivity with those find in the wild. Different parameters and sub-parameters assigned by elephant experts from different parts of the world were consider.

## Study Area

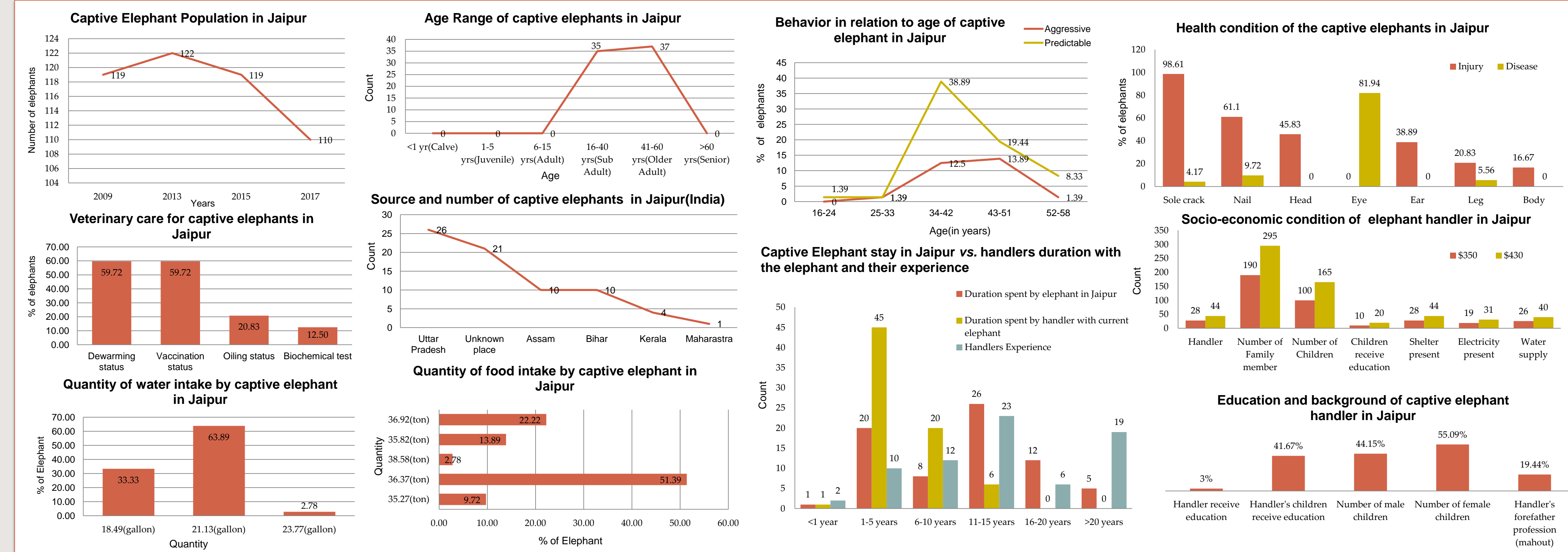
Jaipur located in the eastern border of Thar Desert is the capital of Rajasthan famous for Elephant Ride and Archaeological Sites.



Map showing the sources of captive elephants in Jaipur along with the graphs of average monthly temperature and rainfall in those states. Data on average temperature and rainfall is collected from, "Climate Change Knowledge Portal For Development Practitioners and Policy Makers- The World Bank Group" [http://sdwebx.worldbank.org/climateportal/index.cfm?page=country\\_historical\\_climate&ThisCCcode=IND#](http://sdwebx.worldbank.org/climateportal/index.cfm?page=country_historical_climate&ThisCCcode=IND#)



## Results



## Shelter

Shelters were closed type having either cement roof or presence of asbestos. Floors were built with a mixture of cement, mud and/ stones. Thus both the conditions were unsuitable for a wildy caught species. Hygiene inside shelter were not well maintained.



## Food & Water Provision

Elephants in Jaipur gets only Jowar (*Hordeum vulgare*), Alfa alfa grass (*Medicago sativa*), Chapati made of wheat and Sugarcane (*Saecaharum officinarum*) to feed. Rarely Bajra (*Pennisetum typhoides*) was provided as a substitute to Jowar. Feeding times were 6:00hrs, 12:00hrs, 17:00hrs and 21:00hrs respectively.

Elephants were not regularly bathed. The bathing places were the *Pilkhanas* (shelter/ feeding place) or ponds. Insufficient quantity of food and water could negatively affect the captive elephants health condition in Jaipur.

## Sleep, Walk, Chaining & Social Interaction

Sleeping duration was 3-4 hours per day in chained condition. Walk and work were same for these elephant with no scope of free ranging. Interactions occurs only during the working time. Elephants walk on hot-tar roads for long hours during summer carrying heavy loads on their back.



## Behaviour & Reproduction

Beside the age that affect the temperament of the captive elephants having a R squared of 0.48 and *p*-value of 0.37 shows a statistically significant relationship between elephant duration of stay in Jaipur along with the current handler and their experience in handling captive elephant. Reproduction success was nil in this type of condition.

## Health & Medical Check-up

Veterinary doctor was available but the frequency of the doctor's visit was twice in a year.



## Socio-economic status of Handlers

Handlers experience a poor quality life with meager salary and no safety.



## Conclusions

Overall living conditions showed a substantial deviation from natural.

This adversely affected physiological and physical well-being of captive elephants. Deficient management practices exacerbated negative effects of captivity. Hence changing them will likely help in alleviating captivity impacts on elephants.

## Constrains of the study

- Data on mortality of captive elephants was not available.
- Number of elephants captured from wild for captive raring purpose was not available.

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