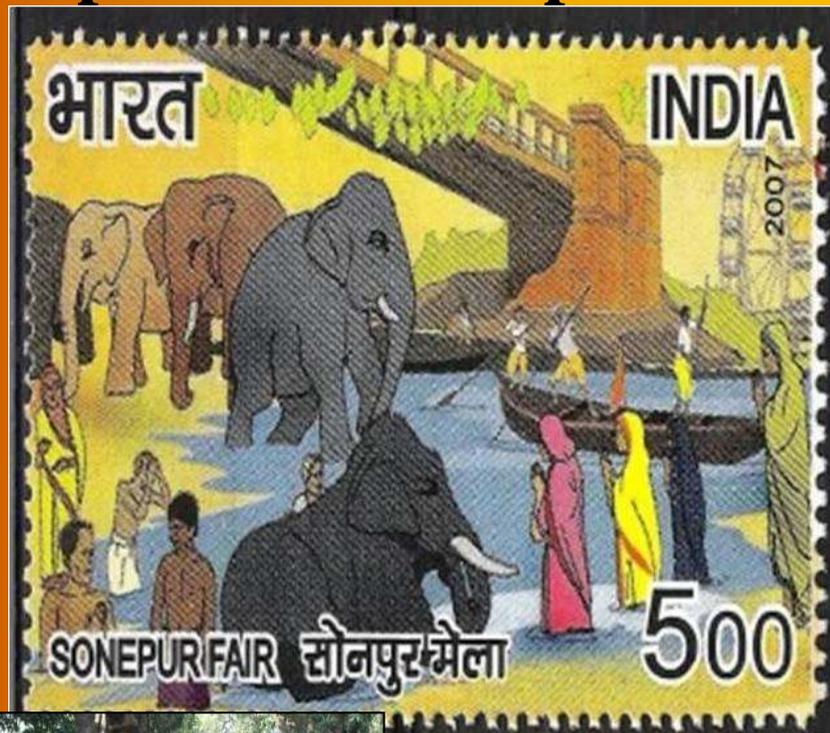


Elephants in Sonepur mela



Observations on population status, trade and welfare of captive elephants displayed at Sonepur mela, Bihar, India

Surendra Varma and Avinash Kumar

Elephants in Captivity: CUPA/ANCF- Occasional Report 16



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Preface

Sonepur mela one of the largest cattle fairs in the world displays diverse species of animals which includes elephants. The mela is conducted to mark the auspicious day of Karthik Poonima and several thousand devotees take a holy dip in the river Ganga and Gandak on this auspicious day. The mela which has a long history of displaying elephants has become a source of exhibiting wealth along with, exchange of animals among owners within Bihar and elephants get traded to different management regimes across the country.

With the mela becoming a source of elephants, there is a keen interest in keeping elephants in captivity. This mela motivates people to own elephants and it is ironical that a large section of owners, general public and even government authorities are not aware of the role the mela plays in the welfare of elephants in captivity. From Sonepur mela, elephants are purchased for government institutions (forest camps, forest corporations, government owned temples and zoos), private individuals and public institutions (temples, circus and others). From the mela, elephants are moved to different states and different management regimes. As the mela becomes a source and the laws related to welfare are neglected, the need for keeping elephants increases.

Interestingly, in most cases the interest of keeping elephants is oriented towards commercial purposes and depending on the need, only specific sex and age class of elephants were selected and purchased from the mela. This selection though accumulates the number of elephants kept in captivity, but does not facilitate the increase of numbers by reproduction. There is a clear indication of decline of elephants kept in the mela. When number of elephants kept in the mela decreases it may reflect the decline of captive elephants in India. Continuous monitoring of elephants in Sonepur mela may provide the details of the future of captive elephants in India.

There are two aspects linked to the captive elephant management: First is the increase/decrease of the population in captivity and the second is the welfare available to existing elephants in captivity. As there is an interest in tracing the captive elephant population in the future, it is important to trace the status of welfare of elephant displayed in the mela and in the locations where they have moved from into the mela. Although the mela has a long history, it is interesting to note that there is no detail of the status (population and number) and the welfare of elephants displayed in the mela. This document reflects our interests of tracing the population status and the welfare of elephant displayed in the mela.

The efforts of Wildlife Trust of India (WTI) with the interest of providing dedicated veterinary care to captive elephants displayed, needs appreciation. Their data base of both health status and number of elephants displayed across the years has immense value. WTI database is a main motivation of our interest for monitoring elephants in the mela. This report is based on observations of 42 elephants over a period of four days and this random observation reflects some patterns.

It is found that elephants stay in the mela for 10 days and major proportion of the elephants leave mela within 4 to 5 days. Within this short period of elephant presence there, if some systematic approaches are followed, this may provide many insights on population number

and the welfare status of elephant displayed there. Within this short duration, all the elephants displayed could be classified and a demographic profile of elephants could be created. This information will have a bearing of captive elephants all over India as elephants are traded/ exchanged here. On the welfare perspective, if our interests are on the patterns of bathing given to elephant during the mela period, details collected on time of arrival to river, duration of bath and mode of bathing for 50 elephants would provide specific knowledge on the status of bathing. In addition to this, with the specific time interval, if each elephant was observed even for five minute period, the behavioural profile of each elephant displayed could be achieved. Short duration but systematic observation of food and water provided, mahout interaction with animal and other aspects, could further enhance the quality of knowledge. This document is developed based on above mentioned approaches and is an attempt to motivate further continuous monitoring of elephants displayed in the mela.

Acknowledgements

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We are very grateful to WTI team particularly, Mr. Arjun Anavangote and Dr Anil Deka for their support in the field. Without this team, much needed logistic support and intellectual discussions would not have been possible. The elephant owners particularly, Mohd. Akhtar Imam, Harinandan Prasad, Santosh Singh and Manoj K. Singh have been very cooperative and have extended their support and treated us with utmost respect and hospitality.

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Introduction and objectives

Sonepur Mela is held on Kartik Poornima in the month of November in Sonepur, Bihar, at the confluence of river Ganga (Ganges) and Gandak. It hosts one of the world's largest animal fairs. Sonepur Mela is the only one of its type where a large number of elephants are exhibited (Bist et al., 2002; Ashraf and Mainkar, 2004) or even traded. This display of elephants may be associated with them being used to display landlords's wealth, exchange elephants among themselves or to be sold to potential buyers. As per sale is concerned, there is a historical reference that King Chandragupta Maurya used to buy elephants and horses across the river Ganges. Despite the history associated with the Sonepur Mela, knowledge on the status of elephants or reasons for their display, details of trade or knowledge of their welfare is lacking. The little information that is available is based on opinions/assumptions without any foundation of specific investigations conducted for the purpose. The knowledge of the reasons elephants are brought, kept and displayed in the mela is linked to their welfare conditions (Ashraf and Mainkar, 2004). If elephants are brought to the mela only for displaying or for exchange of animals among the elephant owners, welfare measures can be introduced and implemented. For example, most of the owners who bring elephants to the mela, do not allow their elephants to indulge in mud-baths while they are on display; in this situation one of the suggested welfare measures could be to make the owners understand the value of a mud bath as an essential component for improving the welfare. However, if elephants are displayed for commercial interests, the owner would like to keep the animal very clean and may not allow it to take mud or dust bath. Given this, the fundamental reason why elephants are brought to the mela is important to understand. The reasons may be identifiable through available indicators while the elephants are on display during the mela.

Many insights on elephant status and their welfare can be extracted during the days of elephant presence in the mela. For instance, a visit to the mela can provide information on day and time of arrival, mode of travel, food, water, shade and rest provided to elephants on their journey to Sonepur mela, luggage carried, process involved in tying the animal for display, specific site or row in which they are displayed, etc. Daily routines such as number of hours the animal is chained, type of chains used, elephants' visits to the river, and other routines also could be investigated. These details have two specific values: a) identifying the process and associated protocols of displaying the animal, b) overall welfare status of elephants in their actual location and the welfare status of elephants during the display. Such visits also provide information on the number of elephants on display and changes in their numbers across the days of investigation. If details of elephants displayed during earlier melas are available, the changes in elephants displayed across the years can be monitored. Although there is a possibility of direct interaction with owners, mahouts and traders, the information extracted from them may not always yield the truth.

For e.g.: During a visit, one such interaction with a mahout revealed that his elephants were bathed in the river at 4 a.m. but direct observation revealed that till 9 or 9.30a.m., elephants are not moved out of their location. The owners claim they have been keeping elephants for 15-40 years but the elephants displayed were purchased only 2/3 years ago. One owner claimed he had 15 elephants. However, he owned just one elephant. Another owner said to have owned elephants for many years did not have any in 2008 and bought one elephant that particular year. Given this data collection, inferences have to depend on direct observations,

published documents and review of reliable details available on the mela. It is assumed that short term but focused field investigations may still be valuable for tracing indications of the reasons for display, and providing details on the welfare measures available for the elephants.

Methodology

This investigation was carried out in November 2010. Opportunistic observations on arrival of elephants to the mela were recorded. During this investigation, initially, locations for display of different animals were identified, which led to information on the site-specific allotment practice. Based on this knowledge, the place where the elephants were kept was visited. It was found that elephants were kept in two different locations. Within these locations, elephants were kept close to each other in rows. The rows were named after some distinct feature. In each row, the number of elephants kept, their age-sex classes, body conditions, tusk type and thickness, ear folding, other distinct features (length of the tail, presence and absence of hair on its tail, type of shade, floor) chaining or procedure of restraining animals, hygiene (presence and absence of food waste), dung piles, wetness due to urine flowing on the elephants' body or cleaning of body were noted. Presence of mahouts and their activities were also recorded.

These rows were visited regularly on a given day to monitor presence and absence or increase of animals displayed there. Age, sex, animal activity, presence of mahout was marked for each visit to a given row. In each visit, an individual animal or all the elephants in a row were photographed, in addition to few minutes of video clip. Regular visits to the river were made to observe presence and absence of elephants there, number of elephants, age-sex classification, and time of arrival to the river, mode of bathing, duration, and departure from the river. Regular visits to the rows where elephants were displayed allowed for specific observation of the elephants for an extended period, and interaction with the owners, mahouts, and traders were also part of the investigation. Day visits were made between 2-5p.m., 10a.m.-5p.m., 9-11a.m. and overnight observations included visits at 7p.m., 10.30p.m., 4a.m. and 6a.m.

About three hours was spent with one elephant owner and fifteen hours was spent with another owner. While interacting with the owners, direct observation of elephants belonging to these owners was made. Due to lack of manpower support, long hours of observations was possible for only two elephants and two owners. Availability of volunteers (trained by experts) would have enhanced the sample size and the quality of observations. Interaction with two elephant traders, one each from Rajasthan and Nepal were made.

Arrival

Arrival and total number

The presence of elephants is expected three days before and after Karthik Poornima. In 2010, Karthik Poornima was celebrated on 21st November (Sunday). The arrival of elephants was expected to commence from 18th November 2010. On the first day of observation, 4 elephants arrived, on the second day, 12 elephants were counted accounting for 8 new arrivals. This included two elephants arriving between 10:45a.m. to 11 00 a.m., two more arriving in the afternoon between 3.00 to 4. 00 p.m., and the time of arrival of four elephants was not known.

The third day (one day before Karthik Poornima) maximum of 25 elephants arrived and the total number of elephants counted till 3.30 p.m. were 37. The same day, two more elephants (which were not observed by us) were reported to have arrived at the spot. A total of 27 elephants had arrived one day before Karthik Poornima,. The observation reveals that elephants start arriving 4 days before the Poornima, and, the maximum number of elephants appears to reach the mela one day before Poornima. Elephants appeared to be arriving even after the Poornima, as on 24th November (2 days after the Poornima) two more male elephants were observed. One elephant came from Siwan district of Bihar at around 10.00 a.m. and the other was from Deoria (Uttar Pradesh) at around at 11.30 a.m.

Arrival pattern and distance travelled

Arrival of elephants (see figures 1a,b,c,d,e,f,g,h, i and j) is one of the main events of the mela. Elephants are known to travel from different distances and are mostly walked all the way to the mela. While traveling towards the mela, elephants' exposure to adequate food, water, shade and rest, time of journey, mode of travel and other associated aspects are important features related to their welfare. It was found that two adult male elephants had walked 200 km (Motihari) for 5 days: they covered 40 km by day and the crew halted every evening at different locations. One makhna, from Phulwarishariff, Patna, which is 35 km from Sonapur, came walking, having started at 3a.m. and reaching the mela at 5p.m. This animal took 14 hours, walking on tar roads to reach Sonapur. In this case, while walking, 2 bundles of sugarcane were given to the animal and at 11a.m., the animal was given 8 buckets of bore-well water. All along the journey, the mahout sat on top of the elephant.

Two female elephants came from a distance of 30km from Sonapur, walking for 8 hours, covering 4-5 km/hr. The crew included 12 members consisting of 4 mahouts and 8 family members. The mahout and his associates came with the elephants, the family came by vehicle. One sub-adult female elephant arrived, followed by a camel led by a rope; the rope was held by the elephant. A colored cloth with designs was placed on the elephant; the howdha was tied to its body and two big bags hanging on both sides. Two sub adult females and a mother and her calf arrived from Amnaur Saran (Bihar), covering a distance of 40km. The arrival of two adult females and the mother and calf was independent and the mother and calf walked for 6 hours. One adult female, 35-45 years old, arrived with ficus leaves tied on it with the mahout on top. It had walked 30 km distance to reach the mela. One sub adult male arrived, with mahout sitting on top in the howdha, other associated accessories placed on the elephant, along with limited luggage. One day before the Poornima, at around 5.15p.m., two elephants were observed moving towards Sonapur. The place they were spotted was near Dighwara, around 35 km from Sonapur mela.

On arrival, in all the observed instances, mahout was on the top of the animal and the materials belong to the mahout - howdha, elephants' food items were carried by the elephants. The owners and their families, primarily sons, and materials associated with them and their stay came in colorful or expensive vehicles and lorries. On arrival of a sub-adult female, the colored cloth was removed, followed by the howdah with two bags stacked against her. The bells that were used to tie around its neck were removed. Overall, on arrival, ropes tied to howdah are untied; materials kept in it are unloaded. The front legs of the

elephants are hobbled, and a rope or chain is tied to a pole; hind legs are normally tied with a short chain and most of the time with spiked chains. In one instance, interaction between mahouts of different owners as well as mahout-different owner interaction was observed on arrival.



a



b



c



d



e



f



g



h



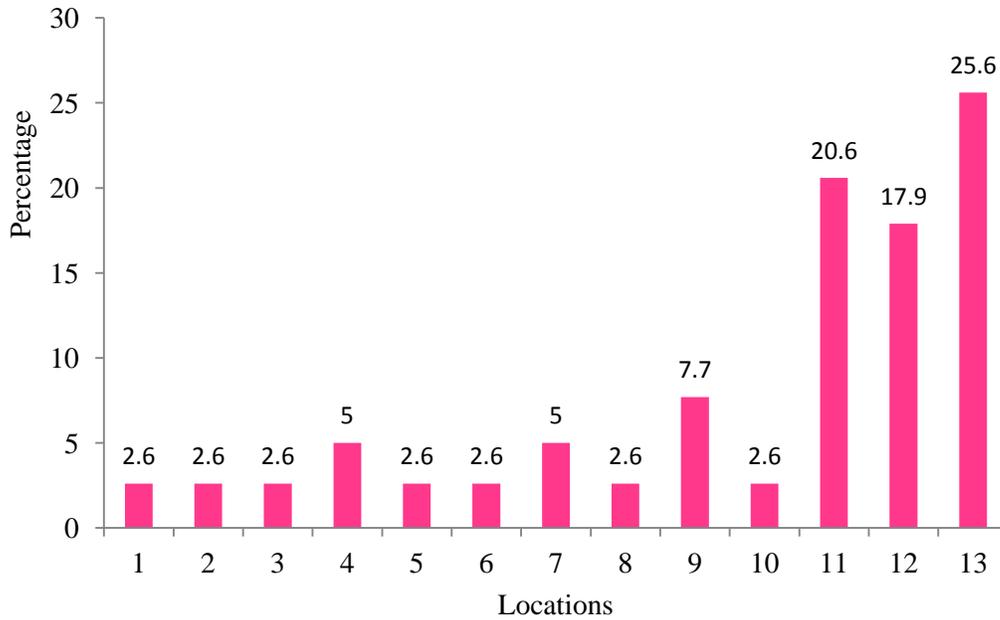
i



J

Figures 1a,b,c,d,e,f,g,h,i and j:Patterns of arrival of captive elephants from different locations and the allotment of specific locations in which they are to be tied in the mela ground

It was found that elephants from 13 locations of Bihar and UP - 8 from Bihar and 5 from UP were present. Among all the locations, Saran (Chapra) dominated (26 %), followed by Patna (21%), Mothihari (18%) and Vaishali (8%). Locations such as Arwal, Ballia, Deoria, Gopalganj Kasya, Buxar and Siwan contributed only 3 % (Figure 2). Elephants displayed at Sonapur may signify the distance of their location to Sonapur as well as the financial status of their owners.



1: Siwan, 2: Gopalganj, 3: Kasya, 4: Kushinagar, 5: Deoria, 6: Ballia, 7: J.P. Nagar, 8: Arwal, 9: Vaishali, 10: Buxar, 11: Patna, 12: Motihari, 13: Saran (Chapra)

Figure 2: Details of locations from where elephants reach Sonepur Mela and percentage of elephants from each location

Display

Owners on arrival identify the location where animals have to be displayed (Figures 3a, b, c, d, e, f) and establish their tent (made out of cloth). They also establish a private area where the food materials are stored and space is allocated for mahout and assistants including cooks to sleep. This is also used to set up a kitchen for the crew to have meals and interact with other owners, traders and visitors.

The site is also used for dusting /cleaning the animal. The size of the tent and the private area may indicate the owner's wealth status. Big tents have two chambers: one for sleeping and a second to store materials, personal belongings, or for visitors to use. Personal vehicles (used by owners and their families) and transport materials are also on display.

The vehicle may be displayed, along with the elephants, within the private area. This private area is covered with *shamianas* (tents). Owners, along with friends and family members, sit in front of the tent overlooking the elephants, making observations and were sometimes seen to be speaking to their elephants as well.



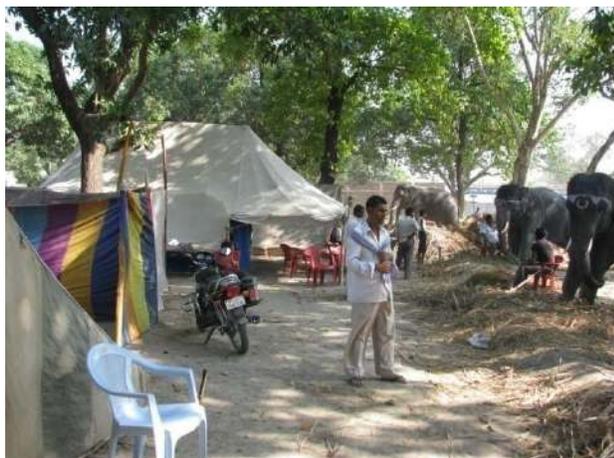
a



b



c



d



e



f

Figures 3a,b,c,d,e and f: Pattern of captive elephants displayed in the mela

All elephants in the mela are kept in orchards belonging to private owners. One orchard was close to the river and the temple (Hariharnath Kshetra) and the second site was divided by a Railway Bridge. Elephants are displayed with or without any decoration (Figures 4a, b, c, d e and f)



a



b



c



d



e



f

Figures 4a,b,c,d,e and f: Display of captive elephants with or without any decoration

The sites are given for rent to elephant owners and commercial establishments. The site is also a central region for all activities. One site owner also owned an elephant which was on display at the mela. Elephants were kept in a specific place or in the form of rows close to each other at 10 to 15 meter intervals. A total of seven rows (Figures 6a,b,c and d), consisting of 8, 9, 4, 7, 6, 2 and 3 with a mean of 6 elephants, ranging from 3 to 9 elephants were kept in rows. In 2010, a total of 41 elephants (Figures 7a,b c,d,e and f) were counted at the Mela (Table 1).



a



b



c



d

Figures 6a,b,c and d: Examples of different rows in which elephants are displayed in the mela ground

For all elephants, both front legs are hobbled and one hind leg is chained. The hind leg is tied with a long chain to a tree or a pole. Front leg is hobbled, connected to another chain or rope and tied to a pole. Wooden stem or bamboo poles with ropes or chains are used to tie the animal. Spike chains are used to tie the hind legs

Table 1: Number of elephant and their age and sex reported in the Sonepur mela

Sites	S.no	Locations	S.no	Sex	Age (years)	
Ground near Hariharnath Kshetra and Gandak river		Temple row	1	Adult male (Makhana)	25-30	
	2		2	Adult male	20-25	
	3		3	Sub-adult male	08-10	
	4		4	Adult female	20-25	
	5		5	Juvenile male	05-07	
	6		6	Adult female	40-50	
	7		7	Calf	01	
	8		8	Adult female	35-40	
			Second row	9	Adult female	20-25
	10	2		Sub-adult male	10-12	
	11	3		Sub-adult female	08-10	
	12	4		Sub-adult female	05-07	
	13	5		Adult female	20-25	
	14	6		Adult female	30-40	
	15	7		Adult female	30-40	
	16	8		Adult female	20-30	
	17	9		Sub adult female	10-12	
			Harinandan Prasad row	18	Adult female	15-20
	19	2		Sub-adult female	07-09	
	20	3		Sub-adult female	10-12	
	21	4		Adult female	20-25	
			Last row	22	Adult male	35-40
	23	2		Adult female	25-30	
	24	3		Adult female	30-35	
	25	4		Sub-adult male	08-10	
	26	5		Sub-adult female	10-12	
	27	6		Juvenile male	02-05	
	28	7		Adult female	15-20	
Ground across Sonepur Railway Bridge		First row	29	Adult female	35-40	
	30		2	Calf	<1	
	31		3	Sub-adult male	05-07	
	32		4	Sub -adult male	05-06	
	33		5	Sub-adult male	10-12	
	34		6	Adult female	15-20	
			Second row	35	Adult male	35-40
	36	2		Adult male	30-35	
			Third row	37	Sub-adult female	05-08
	38	2		Sub-adult female	05-08	
	39	3		Adult female	35-40	
	40	4		Adult female	20-30	
	41	5		Sub-adult male (Makhana)	10-12	



a



b



c



d



e



f

Figures 7a,b,c,d,e and f:Examples of different age and sex class of elephants displayed in the mela ground

All the elephants displayed in a given row are forced to stretch their hind legs (Figures 8a, b, c, and d) bending towards the front and are given grass, sugar cane and other types of food. They are kept in this position, except when taken out to the river.



a



b



c



d

Figures 8a,b,c, and d: types of tethering of captive elephants in mela ground

The floor (Figures 9a and b) is natural (soft and grey soil). Floor is covered with food and food waste (sugarcane, grass). Dung piles are moved towards one side. Natural shade of trees (Figures 9c and d) is there for both elephants and the public. The shade for two elephants was made by a cloth (Figures 9e and f) above (tied to trees above them). Two adult females had trees around them, but one sub-adult female did not have any tree cover. Hygiene condition around the elephants is relatively better, however food waste, dung piles and urine observed to be found around the animals (Figures 10a,b,c,d, e and f).



a



b



c



d



e



f

Figures 9a,b,c,d,e and f: Types of floor and shade available for the elephants displayed in the mela ground, natural floor (a and b), tree shade (c and d) and manmade shade (e and f)



a



b



c



d



e



f

Figures 10a,b,c,d,e and f: Hygienic conditions observed around the elephants displayed in the mela

Display of adult females dominated (42%) followed by sub adult females (20 %), sub-adult males (17.1%) and adult males (12%). Both juvenile males and calves contributed 4.9 % each. Sixty one percent of elephants displayed in the mela were females (both adult and sub-adult females); males contributed 29 % (Table 2) of total number of elephants displayed at the mela. Most of the males seen were tuskers, with tusks trimmed and rings fixed on them and there were two makhana (tuskless males). One male of 8-10 years was observed with relatively long tusks for its age with rings fixed on the tusks. The tusks were not trimmed.

Table 2: Age and sex class of animal displayed at the Mela

S.no	Sex and age class	Number of individuals	%
1	Adult female	17	41.5
2	Adult male	5	12.2
3	Sub-adult female	8	19.5
4	Sub-adult male	7	17.1
5	Juvenile female	0	0.0
6	Juvenile male	2	4.9
7	Calf	2	4.9
Total		41	

Location of elephant keeping at the mela may depend on the owner's interest in displaying his economic status. The first location had maximum (68 %) elephants, close to the temple and river with many shops and commercial establishments and areas for people to sleep. In the second location, except for two adult tuskers and the exception of one owner, the elephants kept appeared to be not in good condition.

Interestingly, except for one owner with two male elephants, others appeared to be small owners trying to look for silent buyers. Its isolation from the main mela ground may indicate the same. It may be also possible that the owners who came to the mela only for a vacation, did not want to be disturbed by constant movement of people and were not interested in effecting a sale. The other point of interest was that the location available to individual owners indicated the cost involved in hiring that location.

There was little space between people and animals (Figures 11a,b,c and). The curiosity of people appears to be an important factor for display of elephants. All the time there were people passing by the animals and large crowds surrounded mother and calves. An isolated male elephant had constant crowds but relatively lesser than the mother and calf. The decorations particularly with colored or designed cloth or any other form of decorations were also the center of attraction. If an elephant was moved to an owner's private tent for cleaning, one could see a huge group of people waiting to see the animal with assembled big crowds vying with each other at getting a glimpse of the elephant.



a



b



c



d

Figures 11a,b,c and d: People around the elephants displayed in the mela ground

Over all, the descending order (Figures 12a,b,c,d,e,f,h,I and j) of attractions is the mother and calf, the decorated animals and adult males with or without any decoration. There is an indication that in the display of elephants, mother and calf are the primary attraction. For 24 hours, there are huge crowds surrounding both the mother and calf. After that, animals with some form of decoration (with the colorful designed cloths or drawings made using chalk) are an attraction. If elephants are not decorated, people are attracted by the adult males due to their tusk size. It was noticed that an animal which is not decorated is not exposed to many people, although constantly people pass by the elephants. During the day, there is a clear demarcation between the elephants and people; however the same is very poor during the night. People sleep very close to the animals, except for the male and sub-adult females, where there are demarcations by ropes tied around them.

Mahouts, after reaching the Mela a day before 'Karthik Poornima, decorate their elephants. They appear to be involved in the job and if the decoration is near the head region of the

elephants, they keep talking to the animals. Mahouts use color chalks, create designs on the elephant's face, body and tail and if they are tuskers, tusks are decorated with a ring fixed on them or colored or designed cloths are hung from them. Some elephants' bodies are covered with cloth which has different designs on them.



a



b



c



d



e



f



g



h



i



j

Figures 12a,b,c,d,e,f,g,h,i and j: Types decoration of elephants displayed in the mela ground

Reasons for keeping elephants and their display in the mela

Many reasons could be attributed for bringing the elephants to the mela and one such reason is that the owners use the occasion to have a vacation for 8 to 10 days. The vacation could be also termed as a “bachelor party”. During this period, the owners sit next to their tents, keep watching elephants, and interact with people, other owners and visitors. An owner from Motihari suggested that he had come there for vacation so that they could interact with other owners, exchange notes and even elephants. It could be a combination of a vacation and a display of wealth. It could also reflect the bias towards keeping one particular sex of the animal and gaining more publicity for it. For keeping male elephants and displaying them in the mela, one owner said that he liked people saying that he kept ‘Hathi’- a male elephant, but not ‘Hathini’ – a female elephant. The male elephants are a source of pride among the owners.

It appeared that along with people or devotees, owners liked their elephant to take a holy dip during the full moon day when Gajendra Moksha, which is associated with elephants, is believed to have taken place at the confluence of the rivers Ganga and Gandak. Giving elephants a holy dip could bring a lot of good luck to the owner. This may also be linked to displaying or exposing elephants to a large crowd. Public opinion about the owner keeping elephants and taking it to the mela for the dip would also motivate him to keep elephants. There is constant publicity and pride associated with elephant keeping. There could be a strong interest to maintain identity or gain publicity, which may be seen or achieved through different approaches. This would, despite the problems associated with elephant keeping, motivate them to keep elephants.

There are clear indicators on the scope available for interaction among the owners, observing and discussing about other owners' elephant status. While one elephant was arriving, one of the elephant owners who had arrived earlier, sat near his elephant, watching the arrival of the new animal, describing the home location of the elephant and the owner's name. One owner's son, who showed more interest in keeping elephants than his father, felt that the two male adult elephants displayed near their tent are "good" elephants displayed in the mela. The attitude of the owners, either through display of elephants or through their comments on other elephants, indicated their pride in keeping "good" elephants.

The other interesting aspects of the display are that even with poor body or health conditions, elephants are brought to the mela for display. There could be two factors associated with this - people who may not have enough resources, but like to keep elephants may buy such animals. The curiosity factor of people constantly looking at the elephants may also serve as an incentive to display elephants, even when the elephants are not in good condition.

The process of display and exchange of elephants with other owners or selling to potential buyers is interesting as this takes care of both display as well as achieves commercial benefits. This trade in elephants could be linked to economic reasons as elephants are reported to be used in wedding ceremonies or for begging. This may be due to changing economic conditions, cost involved in maintaining the elephant and the mahout. Even rich owners may be tempted to send their elephants for wedding ceremonies as a means of display, publicity and /or commerce. .

There is evidence of owners displaying good elephants through all possible methods. While elephants are on display, the animals are not allowed to have mud baths or break branches above them. Both these activities are attributed to the animals looking untidy, dusty and "dirty". When animals indulge in these natural behaviours, the mahouts shout and poke them with a stick or climb on the animal to remove the mud and leaves. It was also observed that the animal is brought to the private location of the owner for dusting the body, while sitting down. Breaking branches damages the trees and owners may have to take responsibility. Though owners like to display their elephants, none of the owners display elephants for a long period of time. The mela takes care of both the display and sale, the trade being from Bihar or outsiders.

Source of elephants and their sale

Most of the elephants are sourced from Assam. It is important to note that Assam has about 1200 elephants and inclusive of other North-east states of India, numbers can be at about 1500-2000 elephants in captivity in the region. Except for the state forest department which manages forest camps and rich private elephant owners, the captive elephants in Assam are a burden to the owners. Unable to find good mahouts, they sell them, using Bihar as a transit route. Owners from Assam also bring elephants to the mela and some owners display, sell, exchange or buy elephants from potential customers.

The number of males available and the owners' interest in displaying their wealth may decide the pattern of trade in elephants. The profits made by selling male elephants appear to be high and that would be a motivating factor for the sale of elephants. According to one owner, female elephants are sold at a price range of Rs.5 to 9 lakh and an adult male with full grown tusks may fetch Rs.20-30 lakhs. Any owner, who may be only interested in displaying their wealth through the adult male, may be tempted by the profit earned in selling males. Adult male elephants appeared to stay with owners for a longer time (some owners had kept male elephants for 5 years). Keeping male elephants for a longer period indicated the need for display of wealth and position. However, the display, exchange and the sale of elephants lead to the change of ownership.

The sale of elephants seems to be dominated by owners who come exclusively to sell elephants to temples, circuses or to owners within the mela. Kerala buyers formed a distinct group. According to an owner, Keralites used to come to buy elephants, but these days not many visit the Mela to purchase elephants; however, people from Bihar and UP bring elephants and traders from Deoria, Saran, Siwan, Gopalganj, Gaya, Champaran and Ballia Districts of Bihar come to purchase them. Going by the number of elephants on display and their return to their original locations, it could be assumed that only a small percentage of elephants are sold currently. However, more specific investigation on these aspects is important.

Elephant keeping by current elephant owners seems to be undergoing a transition. Forefathers, fathers who liked to keep/kept elephants may not be in a position to understand the younger generation and their needs. According to an elephant owner, their growing children may not understand or experience the traditional interests of keeping elephants. Hence the tradition of the continued practice of keeping elephants across generations of owners is declining. However, this transition stage is at a very critical juncture and their welfare itself is at stake, due to the mismatch of interests. At this stage of transition, the practice of keeping elephants and managing the associated issues appears to be losing its charm and this is leading to elephant owners looking for potential buyers. Interestingly, owners who do not know the problems associated with keeping elephants get lured into buying them and subsequently may suffer ignorance of elephant keeping and husbandry issues. As mentioned elsewhere, elephants in Assam have no work. The owners with problems associated in managing elephants and with financial constraints are looking for buyers. The latter, with the influence of middlemen who wish to make quick profits, buy elephants.

A significant source of elephants used for display could be the illegal capture of elephants from the wild. Elephants are assumed to have a market demand and are purchased by people who may not have experienced the problems associated with keeping elephants. There could be indications of illegal capture of elephants from Assam and associated trading. One sub-adult female elephant observed in the mela had scar marks on the hind legs. According to a veterinary expert from Assam, the scar marks on the hind legs may reflect the animal being captured from the wild, tied in one place for a long period for training. After capturing the animal from the wild, training for three to six months is needed. According to him, females are easy to capture, train and keep. However, the capture through the traditional approach may have high mortality and capture through sophisticated methods such as the immobilization method is difficult and needs expertise. These two factors, traditional approaches having high mortality and difficulties in using modern methods are expected to influence the capture of elephants from the wild. However, some level of illegal capture cannot be ruled out.

Overall 4 factors define the influx of elephants to Bihar and eventually reaching the Sonepur mela:

1. Changes in the tradition of keeping elephants
2. Elephant owners in Assam not being able to maintain elephants across generations of owners, within Bihar/ U.P.
3. Illegal capture from Assam
4. Continued market demand

Traders

Traders from Rajasthan (contact numbers; 9928473439, 9829222447, 99292104638, 9314502636) had come to look for a female elephant and proposed to stay there for three more days and was not satisfied with the many elephants that he had seen. One trader from Nepal (contact numbers; 056 560549, 9845024838) was looking for elephants to be purchased, he even solicited help in purchasing elephants from Assam.

Although there is a clear legal restriction on bringing the elephants to Rajasthan, elephants are brought into the state illegally and there appears to be no monitoring of new arrival of elephants. It's also possible that monitoring the arrival of elephants may be difficult as there is no point person or authority to regulate and monitor. Involvement or regular support from NGOs to monitor elephants on a regular basis in Rajasthan or elsewhere may be an issue and all these factors motivate the buyers to bring elephants and increase or maintain the demand of elephants in the mela.

Daily routine for elephants in the mela

Bath

On the first day, between 12 noon and 1.40 p.m, two adult female elephants were observed to walk towards the river and they took 10 minutes to reach the river. There were two sub adult male elephants also present. On reaching the river, one adult female started to drink water, following this the elephants were made to lie down, the long stick with was placed on the body or fixed into sand or mud of the river supported on the body. Using both hands, water

was splashed all over the body. The animal was scrubbed using stone, it involved more of rubbing the stone hard against the elephant's skin using both hands, the stone was moved up and down continuously, even rubbed over old or chronic wounds. Mahouts and their assistants were observed rubbing the stone vigorously even around the eyes of the animals. While giving bath, if the animal disobeyed or was not listening to the mahout, they were beaten using a small stick. Elephants remained in a lying position for 40 minutes, later they were made to stand, and water was again splashed all over the body for 10 minutes. After this, the elephants were made to walk to their respective locations that took 10 minutes for the animal to reach.

The second day, at 12:55 p.m., two elephants (one adult and one sub-adult female) were untethered, the mahout climbed on them, they were pushed to walk, with their tails raised. Both elephants started running towards the river. At 13:29 p.m., the elephants were brought back. While reaching their location their tails lifted and they ran towards it. From 12:55 to 13:29p.m., about 35 minutes was the bathing time for elephant. If the time of 10 minutes to reach the river is also considered, the elephants had only 20 to 25 minutes of bath.

On the third day, two elephants, one adult and sub adult female (the same elephant observed on the first day) were taken for bath at 9:30a.m., and by 10.30a.m., both elephants reached their place of tethering. The elephants took bath for 40 minutes and there appeared to be sincerity (though the method of giving bath could be questioned) on the part of the owner and mahout to give regular baths at the regular timings for the same duration of time. At 12 noon, one adult male was observed to be washed in the mela ground itself, where it was tied. The animal was made to sit down, water was poured on the animal by a mug, and only head and tusk were cleaned or washed. According to the mahout, it was difficult to manage the elephant in the river and the bathing becomes a fragmented event.

On the fourth day, the day of Karthik poornima, at 08:50a.m., at the river four elephants were observed bathing along with people. One juvenile male was forced, even beaten to take a dip or have bath. A group of photographers on a boat hired exclusively for them, stationed the boat next to the animal and forced the mahouts to support their interests of taking photographs of the juvenile elephant. Between 9:00 to 9:20a.m., three elephants then came out of the river, with the mahouts sitting on top of them. They negotiated their way through the crowd and started walking towards the location. At 9:10a.m., two elephants were seen approaching the river.

If a regular pattern of bathing (Figures 13a,b,c,d,e,f,g,h,i,j,k,l,m and n) is followed, the elephants are taken to the river at different times, and it appears to start from 8.30 a. m. to 2 p.m. For two adult females, the bathing was for 50 minutes. During mid-day, the duration of bath for one adult and one sub adult was 25 minutes. Elephant baths may take 45 minutes to 1 hour for adult females and 30 minutes for sub adult animals. The notable feature of the bath is the use of hard stone; mahouts keep scrubbing the animals very hard. The adult male that cannot be taken to the river, yet has its head and tusk washed. Bathing appears to be dependent on the age or size of elephants or time of bathing. The exposure of the mahout to the mid-day sun may also decide the duration of the bath. It appeared that, along with people or devotees, owners wanted their elephants to take a holy dip on the Poornima day, based on

the belief of Gajendra Moksha which states that giving elephants a holy dip on that day is auspicious for the owner.



a



b



c



d



e



f



g



h



i



j



k



l



m



n

Figures 13a,b,c,d,e,f,g,h,I,j,k,l,m, and n: patters of bathing observed for elephants displayed in the mela

Drinking

While the elephant stands at its tethering site, water for drinking is given in plastic containers (Figures 14a,b,c and d). Once it was observed that a female elephant took two mouths full from the container, but soon lost interest in drinking water. The mahout forced the animal to drink, however, the animal did not accept. Elephants were also seen drinking water as they reached the river and also when they went deep into the river for bathing. However, when the river water was disturbed and became muddy, the elephants were not observed to be drinking. While they were made to stand still in the river for washing their bodies, the elephants were observed to be drinking water.



a



b



c



d

Figures 14a,b,c and d: Sources of drinking water for the elephants displayed in mela

Interaction

There may be opportunity for the elephants to interact among themselves in the mela (Figures 15a,b,c,d,e,f,g and h). This interaction is expected at the mela ground or at the river when elephants assemble for bath. It was noticed that one adult female on reaching the river extended her trunk and tried to touch a sub adult male also in the river. The male also responded to the female and started touching her reproductive organ. However, the female was forced to lie down in the water and was not given scope for the interaction to continue. Interaction among elephants occurs in the mela, but at a very fragmented level as elephants are tied in one place and they may not be in a position to engage in tactile communication; when they get the opportunity at the river, procedures of giving bath do not allow them to interact with other animals that are in the river.



a



b



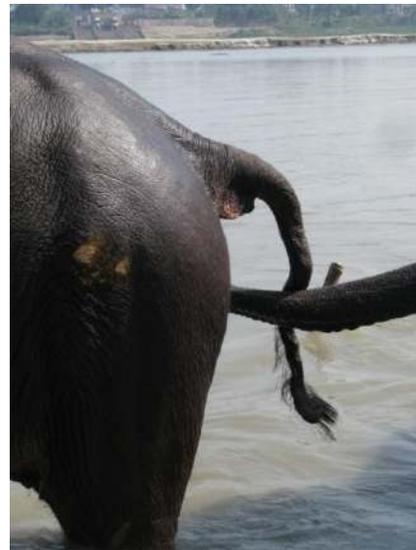
c



d



e



f



g



h

Figures 15a,b,c,d,e,f,g and h: Source of interactions while in river (a to f) and in the mela ground (g and h)

Sleep and other activities

At 10.30p.m., except for one juvenile male, which appeared to be restless, trying to lie down, half standing; the young ones including sub adults, particularly juveniles and calves were observed to be sleeping or in lying position (elephants in this age class were lying down on the right lateral position). At this time, an adult female and her calf were standing. Among two females kept together, one female kept her trunk inside her mouth standing still with no ear flapping and the second female was lying down on her left lateral position. An adult male was standing with people around watching him. At this hour, there was an attempt to tie the calf to its mother's neck; however, the calf was not obeying and was beaten by the mahouts and their assistants. Both mother and calf were surrounded by people, some people sat or stood and some people were even seen sleeping very close to the animals

At 4.00 a.m. an adult makhna was lying on its left lateral position, its front leg folded. Including the mother, six adult females and two adult males, all were standing during this period. One of these females was standing still, no feeding or ear flapping was noticed, but trunk was touching the ground. The adult male was standing; it was partially active, surrounded by people, some sleeping very close to him. While the calf was sleeping and the mother was standing, some people were still standing and observing them. At 06.30a.m., a makhna was standing, there was no feeding and he showed no signs of activity, except standing silently. All other elephants were standing and feeding on the food lying around them.

During night hours, from 10.30 p.m. to 6.30 a.m. except for a makhna and a female, all adult animals were observed to be standing. However, no feeding and no ear flapping were observed for some elephants and they appeared to go into the mode of being still, without any movement, the trunk touching the ground. Adult elephants were observed to be sleeping; they appeared to be maintaining left lateral position (Figures 16a and b). From 10.30 p.m. young ones, including sub-adults (irrespective of sex) were may be in resting on lying position and active sleep may occur during 3 to 4 a.m. and they appeared to follow right lateral position of lying.



a



b

Figures 16a and b: Sleeping position observed for an adult makhna in the mela

Stereotypic behavior

From 07.05 to 07.10 p.m., a makhna was observed showing stereotypic behavior, no sign of such behavior was observed for 2 seconds, then he continued the same till 7.20 p.m. At 7.20 p.m., the animal went to a lying position and while in this position it tried to pick up grass, got up immediately, following which it started stereotypic behavior. The behavior continued without any interval for 10 minutes. Later, the animal again lay down for 25 minutes, got up and started showing stereotypic behaviour. When it tried to feed on a branch above him, the stereotypic behavior was not observed. At 06:40a.m, when the makhna was observed, it showed severe stereotypic behaviour, moving his head from left to right and bringing the body back, simultaneously trying to eat something. At 10.30p.m., an adult male which had met with an accident, yet being displayed, was standing supporting its tusk for some time. He later started moving the body which was not distinct, but was noticeable. While on a short time observation, one adult and a sub-adult female showed active stereotypic behavior during the day and as the animals were not observed for a longer period, no conclusion could be drawn.

The stereotypic behavior appeared to be taking place in different forms. It is also possible that the same could be very distinct during evening hours when not many people or mahouts or owners were around. Otherwise, the elephants were in constant alert state of being observed, mahout sitting next to them, controlling them or forcing them to feed. During the day, the elephants themselves were involved in active feeding or were taken to have a bath. Many factors may contribute towards stereotypic behavior: when elephants are kept tied and are kept standing in one location for a long time (from morning to the time they go to sleep or are taken out for bath) elephants are forced to be involved in some form of activity. There is no work for the elephants and movement is severely restricted, they are only made to eat, they appeared to be losing their interest in eating, becoming more restless, tending to show severe stereotypic behaviours. Interestingly, when elephants try to break some branches above them, for that few seconds the stereotypic behavior is not there. Overall, no exercise or a single activity or eating continuously, losing interest in eating, standing for a long period without any work/ opportunity to move, all may lead to a lot of boredom.

Food and feeding:

Main food given (Figures 17a, b, c, d, e, f, g and h) to elephant displayed in the mela consists of green grass, paddy straw, sugarcane leaves and hay and leaves of ficus (*Ficus spp.*) such as *peepal* and *pakar* and *plam*. Cooked food such as rice, horse gram, wheat and maize (corn) is also given and mahout wrap cooked rice or wheat or horse gram in grass leaves to the elephants. In addition to this locally made mixes were also observed to be given to the elephants in the mela. According to one owner, the food items given to the elephants were green grass, sugarcane, green gram and 1kg of sweet given two times, ½ kg per time.



a



b



c



d



e



f

The males appeared to be chained all the time and they may not get chance to mate, however mating with females (due to the availability) cannot be ruled out.



a



b



c



d



e

Figures 18a,b,c,d and e: Females with their calves (a and b) and potential reproductive individual (c, d and e)

Health status

Most of the elephants had foot problems, dry skin and some animals had bed sores (Figures 19a,b,c,d,e,f,g and h). The problem of dry skin could be due to a nutrient deficiency and bed sores could be due to sleeping on concrete floors. The nutrient deficiency could be linked to a lack of variety of food given both at the mela and their original location. One elephant which had met with an accident looked to be in a very weak condition. At times, the animal was bending while standing or supporting itself through tusks; the tusks were thick but thinned and made to become small, not allowing the animal to use the tusks to support itself while standing. One elephant was reported to have eye problems (corneal opacity).



a



b



c



d



e



f



g

h

Figures 19a,b,c,d,e,f,g and h: Types of health issues reported for the elephant displayed in the mela

Elephant owners

One owner from Mithapur- Patna, owned two elephants: one sub adult male 7 years and an adult female, 15-20 years. Two years ago, he purchased one sub adult from Sonapur and an adult female from Gaya (100 km from Patna). Both the elephants and the first owners were originally from Assam. The owner from Bihar had been keeping 1 or 2 elephants for 20 years depending on their availability. He had four elephant handlers: two mahouts and two assistants. He had two sons, both studying, one pursuing a degree in management (B.B.A.) and the other studying to become an accountant (B.Com.). Both of them liked elephants but with their education and activities, they did not have enough time to spend with the elephants and follow the family tradition.

Another owner had one elephant, an adult makhna and had been keeping elephants for 38 years. Since the past 13 years, he had been personally involved in elephant keeping. He had kept 15 elephants with a combination of both males and females. The third owner had 2 sub-adult female elephants and in this particular case, his son showed more interest in keeping elephants. This owner kept his animal away from other elephants; he did not allow his visitors to give bananas to the elephant as he felt that may create health problems for the animal, particularly a cold and also according to him, over feeding was not good for the animal.

The details available for 39 elephants suggest that they belong to 22 owners (Figures 20a,b,c,d,e and f) and maximum elephants displayed by a single owner were 2 and 7 (32 %) owners kept 2 elephants. Elephant owners who displayed 2 elephants came from locations such as Kushinagar, Amnaur, Buxar, Chapra, Mothihari, Patna and Saran.



a



b



c



d



e



f

Figures 20a,b,c,d,e and f: Elephant owners: The facilities they develop with the sites their hire to display elephants in the mela

The list of elephant owners developed based on the field observation (Appendix 1) and by government officials suggests an interesting finding and there are remarkable differences in the list developed by both. Comparison of the lists (of field observers and government officials) shows only 8 names (out of 39) of elephant owners fully matched for both lists (Appendix 2), and 3 names of elephant owners matched partially. This may indicate that elephant owners do not reveal their actual names, or elephants may belong to three generations of people (grandfather, father and sons), owner may mention any of these names while enumeration is done.

Mahout

In most cases, mahouts arrive with their elephants. They often sit next to the elephant, keep arranging elephant food. Mahouts (Figures 21a,b,c,d,e,f,g,h,i,j,k andl) take elephants to the river to give them a bath, or wash their elephants in the mela ground itself. When they take elephants to the river, mahouts also wash their clothes using the elephant's body (acts as a rock in the river). In day time when there is no work, they rest or sleep next to the animal. One of the mahouts interviewed was 50 years old, belonging to Buxar (200 km from Sonapur).

He belonged to the 'Paswan', a scheduled community, had been working as a mahout for 15 years and for the last one year was working with this current owner. His grandfather and father were mahouts; he was paid a salary of 3000 per month. He was not educated, was married, had two sons and both the sons worked as labourers. According to him, none of his sons showed any interest in becoming mahouts and he was also not keen on them becoming elephant handlers.



a



b



c



d



e



f



g



h



i



j



k



l

Figures 21a,b,c,d,e,f,g,h,I,j,k and l: Profiles and work responsibilities of mahouts observed in the mela

Mahout-owner relationship

Some owners were observed to be calling mahouts “mahout ji”, a respected way of addressing them. Experienced mahouts or a mahout working for a given owner for a long time appeared to be respected a lot. However, owners’ interactions with mahout’s assistants or assistant appeared to be negative and they appeared not to be treated very well. In fact , they were treated badly.

Departure of elephants

On 25th of November, 4 days after the Karthik Poornima, there were only 17 (41%) elephants in the mela. On the same morning, a total of 26 elephants were there, of which 2 left by 10.30 a.m. and 7 left between 3 to 4 p.m. From the second location, on 25th November, except for one mother and a calf, all the elephants moved out of the mela. The actual strength of elephants in the second location was 13 and 11 elephants had moved out between 24th evening to 25th evening.

On 30th November, 9 days after the Poornima, final presence of elephants in the Sonapur mela could be seen. On that day between 3.15 to 3.45p.m., the remaining 5 elephants in the mela moved out of the fair and all by trucks. A female and her calf were in one truck, two more elephants in one truck and one was in another truck. The pattern indicates that about 42 % elephants leave the mela 3 days after Poornima. The pattern of elephants leaving on other days is not clear, but all the elephants leave the mela on the 9th day of the Poornima.

Status of display in the mela

A review of elephant displayed across the years suggests that there is a sharp decline of elephants displayed. For 10 years, from 2001 to 2010, there has been about a 50 % reduction in the number of elephants displayed (Figures 22).

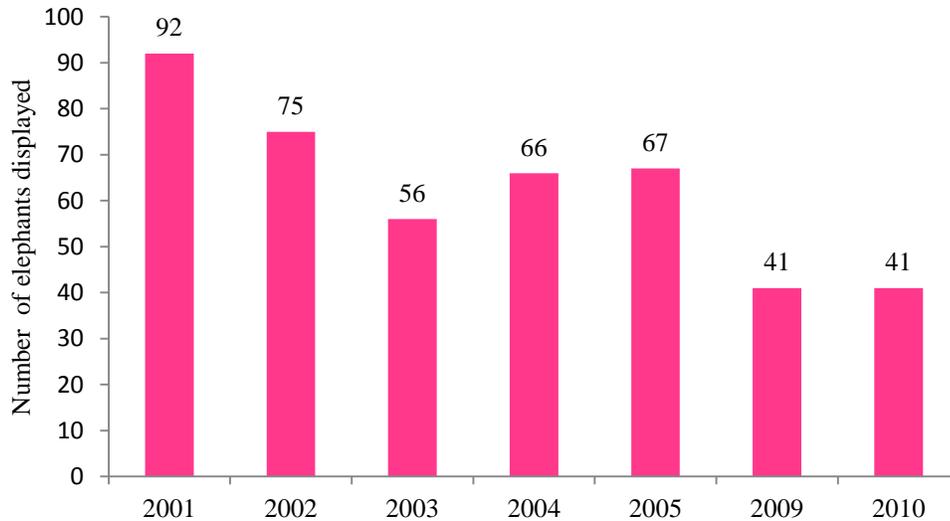


Figure 22: Number of elephants displayed at Sonepur Mela across the years

It is important to trace the reasons for such a decline. According to one owner, only 25% of the owners bring elephants to the mela as most of them may not be interested in trading. It is also possible that animals on display included those elephants brought by an owner's forefathers and current owners may not be keen on keeping them but bring them to look for potential buyers. He also felt that within ten years there will not be any elephants displayed at the Sonepur mela.

Many factors were assumed to play a role in this direction:

- 1) Presence of a large number of untrained mahouts (owners were not able to find good trained mahouts)
- 2) Even with a trained mahout, the mahout's children did not show interest or were not allowed by their parents (fathers) to continue the tradition
- 3) Changes in interest of owners' sons (current young generation) also appeared to decide the fate of elephants coming to the mela. The enthusiasm in bringing elephants to the mela is coming down due to the responsibility and expenses involved, restrictions imposed by the government, owners childrens' lack of interest and availability.

Except for one case, owners sons appeared to be not interested in keeping elephants, they were involved in studying or other activities, they also resided out of the state, visited their families occasionally or only during specific times. In one case, the father (elephant owner) wanted one of his sons to study a wildlife course to know more about elephants. However, most sons of owners' were not much interested; even if they were interested, their interest in keeping elephants was fragmented by other activities.

Overall, interest in elephant keeping by owner's children as well as availability of trained mahouts and lack of continued training of new mahouts either through family association or

out of interest may decide the future of elephants in Bihar and display of elephants in the mela. However, mahout's childrens' poor education status and lack of alternate resource gathering skills eventually make them become mahouts and continue their father's profession.

In addition to this, a ban on elephant capture, ban on transfer of ownership through sale and purchase, restriction and monitoring of movement of elephants from state to state, the cost and effort involved in displaying elephants (mode of transfer, labour, fodder and other associated aspects) being increasingly high, may all contribute in the reduction in numbers displayed. It may be true that the display of elephants in the mela is coming down. With the initial stock of elephants, both display and sale or exchange has been carried out. Factors like elephant death (due to old age or other factors), loss of tradition, difficulties in keeping elephants may contribute to their reduced numbers in the mela.

A careful observation of traders' statements reveals that the elephants currently displayed are not in suitable condition for the buyers needs. This may also reduce the number of elephants displayed for sale in the mela. It was informed that the number of traders from Kerala who frequently visit the mela is coming down, and according to one owner, for the last two years, their absence is prominent. It is reported that the unsuitable quality of elephants available in the mela was one of the reasons cited by an elephant expert team who visited the mela from Andaman in 1995, about why only a few elephants are bought. As most elephants had health problems, poor eye sight, dry skin, wounds and other problems, they may not have suited buyers' interests.

Reasons for people visiting the mela and declining numbers

There could be a relationship between the display of elephants and the reason the general public visit the mela. Upon interacting with people who were interviewed randomly, some people said they had come to the mela to see elephants and horses (*hatthi* and *ghoda* in local language). Some people had come to see the bird market (*chiriya bazaar*). Some people suggested that they came there because it was the largest fair in the world and also because there were many agricultural exhibitions held which gave farmers a subsidy on equipment and crop seeds. Cultural events arranged in the mela also attract many people.

People also felt that the number of elephants and horses coming to the mela was falling and this may be linked with the reduction in number of people visiting the mela. Many people's perception was that the mela was losing its charm and glory and that was because of the lower number of animals and traders coming from outside the state. Horse races were held, but this year there was no horse race and cattle exhibition. Reasons such as: heavy exploitation by local vendors and contractors, comparatively less facilities and amenities for people and tourists, and many agricultural labourers and farmers being busy with harvesting due to late harvest, may have contributed to the decline in the number of people visiting the mela.



a



b

Figures 23a and b: Horse display and race used to be a regular event, that was missing in 2010

Welfare

Every factor associated with the mela, including, the process involved in bringing elephants, their shelter at the mela, food, water, scope of interaction among other elephants, departure of elephants from the mela and other aspects associated with displaying elephants, directly or indirectly influence the overall welfare of elephants kept in the mela.

In addition to this, welfare while with the owner, for those elephants which have been exchanged or sold is also important. If elephants have been sold or exchanged to individuals or institutions (like circus, temple, zoo, forest camp), the current status of their economy and the scope to provide natural environment will also decide the overall welfare of the elephants.

In the Sonapur mela, owners and mahouts may be unintentionally abusing their elephants. Some owners have a personal liking or interest in keeping elephants. But economic constraints or lack of resources or lack of knowledge about the wellbeing of the elephant (or a combination of all factors) have not been permitting them to keep the animal well. Elephants arrive from a long distance walking 30 to 40 km/day. They walk on tar roads, through heavy traffic from very early morning to late evening and they appeared to be exposed to very limited food, water, shade and rest.

Elephants are made to stand or are chained for a long time and exposed only to few varieties of food. This leads to eating a lot leading to obesity or nutrient deficiency which is reflected in dry skin or other associated problems. Food waste remains next to the animal for long periods of time, dung piles are periodically removed but it's important to know where they are disposed off. There was no mechanism noticed for draining out the urine. Spike chains are commonly used to tether elephants; these chains are known to cause open wounds and sores.

The desire to display a good economic status or good elephants may lead to preventing elephants from indulging in dust baths (Figures 24a and b). If elephants throw mud on their body, they are beaten; someone (mahout or his assistant) climbs on the animal, cleans dust, removes leaves using a gunny bag.



a

b

c

Figures 24a,b and c:Removal of dusts from elephant’s body: Mahouts and his assistant (a and b) and another mahout removing dusts (that had been thrown by elephants) from their body

Mahouts appeared to be interacting with an elephant violently—if the animal refused to feed or drink or did not cooperate while bathing, they were beaten or poked with a long stick with one sharp edge (Figure 25a) and the other edge armed with an *ankush* (Figure 25b). The tool is always kept next to the animal. The tool is used to poke them when a mahout wants to reach any region of the animal. Ankush or long spear causing fresh wounds or opening old wounds in regions behind the ear, and some parts of the body was observed by the WTI veterinary team. Rubbing the elephants using stones vigorously around the eyes while giving bath may develop mental fear in animals. One elephant was reported to have an eye problem (corneal opacity) and the mahout claimed it was due to vigorous rubbing of its face. The use of detergent for washing the mahout’s clothes using the elephant’s body as a surface may affect the elephant’s skin. Some animals were observed to have bed sores as a consequence of exposing the animals to concrete surfaces and shelters or poor skin management.



a



b

Figures 25a and b: tools used to handle elephants violently; stick with sharp edge (a) and iron ankush (b)

Animals appeared to be going through a lot of stress surrounded by people (Figures 26a, b, c and d). People kept watching, sleeping next to them and loud music with devotional songs

was being played. Along with the decorations, cloths covering the animals may lead to severe stress for animals. Except for the river and shops, people were everywhere; if accidentally even one elephant broke loose from its chain, lot of people could be stamped to death or injured. The official figure of the number of people visiting the mela is yet to be known, however, there is a report of a concentration of 4lakhs in 2009. Garbage generated, along with food, other waste created and the sanitation available to the people would influence the hygienic conditions



a



b



c



d

Figures 26a,b,c and d: Elephants surrounded by people in different locations of elephant display

the elephants are exposed to; elephants and people use the same river and the same location. During full moon day, elephants are given bath along with a large crowd of people assembled there for the holy dip in the river.

With all the issues and negative welfare associated with displaying elephants in the mela, this practice may be banned. However, while comparing the shelter and other activities that elephants in Bihar are exposed in the actual locations of their owners, elephants displayed in the mela are exposed to natural floor, shade and get opportunity to have bath in the rivers.

However, some modifications in the way elephants are displayed in the mela are necessary:

- Irrespective of the cost involved in hiring places for displaying the elephants in the mela, elephant owner may be required to hire a bigger place for displaying elephants.
- Elephants should be tied using only long chains, permitting scope for body movement and comfortable sleeping positions. Change of location for tethering elephants needs to be introduced, and elephants should be allowed to be tied in one location only for two or three hours. The owner should be required to hire a location that gives scope for 3-4 different sites with natural shade (under tree and natural floor).
- All the elephants should be made to go for a walk early morning and late evening, this can be done with all the elephants walking together with simple decoration or name boards carrying elephant's name and ownership details
- Specific boundary between elephant and people while on display and while giving bath, by construction of boundary around them at the mela and a platform that divides people and elephant at the river. The platform at the river could also be used for the tourists to watch all elephants bathing
- Expose elephants to a regular pattern or protocol for bath, provide information to the mahout and owner on such aspects as not scrubbing the animal using the stone but soft material, providing information on skin care and bathing materials to be used for bath
- Increase in knowledge and upgrading skills of mahouts and elephant owners are very important. Though they are in touch with the animals for long periods, there are still certain gaps that need to be addressed by proper mechanism; use of fear and punishment to control their elephants needs to be reduced
- Variety of food to be introduced, this should include foliage, green grass and branches. Provide variety of food in different places at different heights. Allow scope for source of work or exercise to different parts of the body while providing food. This should also take care of the nutritional needs of the elephants and prevent contamination of food and water given to the animal.
- Equally important is the way elephants are brought to the mela: transport should be in accordance with the rules laid down by the Ministry of Environment and Forests. There should be specific protocols of mode of travel, distance covered, food and water provided.
- There should be a ban and strict regulation of elephant coming from outside Bihar

The elephant owner plays a very important role in the welfare of his elephant and he should also join in managing elephants along with the mahout. The chance of elephants being kept well will be high. According to one owner, for elephants to be kept properly the owners role is important, owners along with the mahouts, should involve themselves in giving food and medicine to their elephants, only then should they keep elephants. According to one elephant owner, if owners take care of their elephant well with the cooperation of their mahout, even in their musth stage, male elephants can be handled well.

In addition to the welfare of status of elephants displayed in the mela, there is need of critical review of the impact on the welfare of elephants sold from Sonapur mela to climatically and culturally different places such as Andamans (Figures 27a and b), Karnataka (Figures 27c, d

and e), Gujarat (Figures 27f) Rajasthan (Figures 27g and h), Tamil Nadu (Figures 27i and j) and cities such as Ludiana, Delhi and most popularly in Kerala (Figures 27k and l) and abused severely (Figures 26m and n). While in a few forest camps such as the Andamans (Figures 26a and b), which stay in forested natural environments elephants bought from different places have integrated to form socially viable family-type units. In contrast to this, temples and loud crowded *Purams* in Kerala (Figures 27k and l), elephants are decorated heavily and are swarmed by crowds of people who come to watch the processions with loud drums and other music instruments. These elephants are kept chained constantly and with minimal social contact.

Elephants in Ludiana, Delhi and some part of Karnataka are usually begging elephants or used in circus or magic shows (Figure 27e), elephants travelling in traffic congested roads (Figures 27c and d), where they have to beg enough to feed themselves, the family of the mahout and the family of the owner. These elephants are frequently fed on leftovers from the previous day in hotels. Elephants in Rajasthan and Gujarat also are subjected to begging on traffic filled roads (Figures 27g, h and 27f) but they also have to endure the heat and water scarcity. A number of captive elephants here are either partially or completely blind due to the bright sun and suffer from severe sun burns that get infected (Varma, et al.,2008a,b,c and d; Varma et al., 2009a and b).

The welfare of all elephants that come to the Mela can either be compromised or improved based on the purpose they are brought to the Mela. If the elephants are brought mainly for sale then the welfare of elephants and mahouts can be severely compromised. However if the elephants are brought there solely to display the wealth of the owners, some stringent measures can be introduced so as to improve the health and emotional wellbeing. These can be small modifications such as conducted early morning walk around the fair, to bathing in the river, variation in food nutrients and finally display, this could offer social interactions between the elephants.



a



b



c



d



e



f



g



h



i



j



k



l



m



n

Figures 27a,b,c,d,e,f,g,h,i,j,k,l,m and n: Elephants that are primarily sourced from Sonepur mela, kept in different states and management regimes and the prevailing welfare status of them; elephants in forest camp in Andaman (a and b); begging elephants of Karnataka (c and d); an elephant used in a magic show in Karnataka (e);elephants decorated and displayed for begging near a shopping complex in Gujarat (f); elephants used in carrying tourist in the fort (g) and through tar road in Jaipur Rajasthan (h); elephants used to in temple and blessing in Tamil Nadu (i and j), elephants attending cultural festival in Kerala (k and l); elephant abused violently for not obeying their master commends (m and n)

Future investigation or protocols for assessing elephant status in Sonapur mela

As mentioned elsewhere, the mela has been associated with historical, cultural and religious significances of India, closely associated with animals. The event focuses more on cultural and other aspects, but the welfare of these animals, including elephants is not known. Before concluding that the event does not give priority to animal welfare, it is important to map all the aspects related to the mela. The sacrifices the animals have to go through to fulfill successful conduct of the event and some of the cultural aspects associated with the mela may influence the status of welfare. If the events are more associated with cultural or commercial interests, it is expected that the welfare of the animals will be lost. With focused efforts and observations even during a few days of the mela by a team of volunteers aided or trained by experts, many insights could be extracted during the period of the elephants presence in the Mela.

It is also important to have volunteers in Patna, Hajipur or Sonapur. Students from college/schools or NGO personnel or veterinary doctors could be included in this team of volunteer based data collection of status of elephants in the mela. The training given to them should focus on design of datasheets for data collection, exposure to parameters used for data collection in the data sheet. E.g.: Volunteers can be placed near the river on alternative days on a weekly basis. Number of elephants visiting, time of arrival, age and sex, specific identification marks, duration of bath, mode of bath could be noted down. The day could be divided into 3-6 hour cycles depending on the availability of volunteers. Number of volunteers can be used to assist and observe the elephants in the river.

In addition to this, specific observations for 5-10 minutes for each animal could be made during the visit to a particular row. The details such as age, sex, daily activities, more specifically presence and absence of stereotypic behaviour, feeding, specific food eaten, and overall hygiene can be collected. Observations on status of chaining, type of chain, presence and absence of mahout, his positive and negative interactions with elephants could be made. This operation could be supported by video clips and photographs. In addition to this, some percentage of animals (in relation to the total number), of different age and sex classes could be selected and observation of a given individual could be made for an extended period covering 12 to 24 hour cycles for all the days of the mela on days randomly selected for the observations. Time activity budget of elephants can also be done based on 10 minutes of observations. This leads to 4 scans (40 minutes) per hour and could be done 4 hours per day. Within 4 days, 1 cycle of 12 hours of observation for one elephant could be made. Depending on the number of volunteers different age and sex classes can be observed.

In addition to this, long-term scanning of groups of animals kept in one row by observing each animal for one minute can be made. If there is a provision to stay in the mela after sunset, every one hour or every four hours, specific visits can be made to elephants from each row. This primarily helps in knowing the activity of elephants and more specifically, duration of sleep and sleeping positions of different age and sex classes. One or two volunteers can be used for specific interaction with the owners to collect relevant details such as elephant name, age, date of arrival, etc., which would provide information of patterns of elephant keeping by owners along with the protocol used for elephant management.

Conclusions

As we observe elephants in the mela, the welfare of the animal is visible, but the reasons they are displayed could be known only to the owners. It appears that owners do not tell the truth, or the investigations are not able to extract the truth. However, five to six days of stay at the mela would bring details on many aspects of the elephants, supported by efforts of volunteers with veterinary background. This investigation is based on 4 days of observations carried out in the mela and this personal observations or random thoughts encountered by being in the mela has facilitated in developing some interesting insights. This may be further motivation to initiate systematic investigations or critically review the existing knowledge to drive the pattern of welfare of elephants in captivity.

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Appendix 1: list of elephant owners, their address and the sex of elephants they have displayed in the mela

Sl.	Name of Elephant Owner	Address	Sex
1.	Vishwanath Yadav	Gheghhta, Saran, Bihar	Male
2.	Ramlakhan Rai	Doriganj, Saran, Bihar	Male
3.	Rama Singh	Amnaur, Saran, Bihar	Female
4.			Female
5.	Virendra Singh	Buxar, Bihar	Male
6.	RamSevak Rai Yadav	Gularia, Motihari, Bihar	Female
7.	KapilDev Prasad	Sapahi, Turkaulia, Motihari, Bihar	Male
8.			Male
9.	Abhimanyu Singh	Amnaur, Saran, Bihar	Female
10.			Female
11.	Mundrika Jha	Mahnar, Vaishali, Bihar	Male
12.	Munna Singh	Janta Bazar, Saran, Bihar	Female
13.			Female
14.	Sudarshanacharya	Naubatpur, Patna, Bihar	Female
15.	Rameshwar Singh	Jalalpur, Saran, Bihar	Male
16.	Rampravesh Prasad	New Bypass Road, Patna, Bihar	Male
17.	Manoj Kumar	Arwal, Bihar	Female
18.	Ramjanam Tiwary	J.P. Nagar, U.P.	Female
19.	Chaman Prakash	J.P. Nagar, U.P.	Female
20.	Mahant Ram	Haldi, Ballia, U.P.	Male
21.	Santosh Singh	Deoria, U.P.	Female
22.	Jwala Prasad Singh	Jehanabad/ Patna, Bihar	Female
23.	Harinandan Prasad	Bigrahpur, Patna, Bihar	Female
24.	?		Female
25.	Krishna Bihari Verma	Kushinagar, U.P.	Female
26.	?		Female
27.	Jitendra Singh	Chanchaura, Saran, Bihar	Male
28.	Nilesh Kumar	Pali, Patna, Bihar	Female
29.	Kedar Singh Yadav	Saguna More, Patna, Bihar	Female
30.	Chedi Singh	Shahpur, Kasya, U.P.	Female
31.	Laxmi Singh	Line Bazar, Gopalganj, Bihar	Male
32.	Anirudh Rai	Karnpura, Siwan, Bihar	Female
33.	Gopal Saran Singh	Barauli, Vaishali, Bihar	Male
34.	Yogendra Singh	Raghopur, Vaishali, Bihar	Male
35.	Mohd. Akhtar Imam	Phulwarishariff, Patna, Bihar	Male
36.	Mahendra Pradhan	Mathurapur, warisnagar, motihari , Bihar	Female
37.	?		Calf
38.	Ramesh Pradhan	Mathurapur, warisnagar, motihari, Bihar	Male
39.	Yogendra Pradhan	Mathurapur, warisnagar, motihari, Bihar	Male

Appendix 2: Comparison of the list elephant owners obtained from two different sourced during the investigation in 2010.

Owner Name (source 1)	Owner Name (source 2)
Abdul Sattar *	Abhimanyu Singh
Akhtar Imam	Abhimanyu Singh
Chandraprakash	Anirudh Rai
Dharam Singh	Chaman Prakash
Dilip Kumar	Chedi Singh
Dilip Kumar	Gopal Saran Singh*
Ganeshprasad Saha	Harinandan Prasad
Gopal Sharan Singh	Harinandan Prasad
Gurudevji	Jitendra Singh
Haridwar Sharma	Jwala Prasad Singh
Harinandan Rai	KapilDev Prasad
Harinandan Rai	KapilDev Prasad
Jitender Kr Singh	Kedar Singh Yadav
Joginder Singh	Krishna Bihari Verma
Jwala Singh	Krishna Bihari Verma
Kedar Singh Yadav	Laxmi Singh
Kedar Singh Yadav	Mahant Ram
Krish Bihari	Mahendra Pradhan
Krish Bihari	Mahendra Pradhan
Mahendra Pradhan	Manoj Kumar
Mahendra Pradhan	Mohd. Akhtar Imam
Mahendra Pradhan	Mundrika Jha
Manoj Singh	Munna Singh
Manoj Singh	Munna Singh
Maninder Jha	Nilesh Kumar
Munna Kumar	Rama Singh
Munna Kumar	Rama Singh
Munna Kumar	Ramesh Pradhan
Narender Singh	Rameshwar Singh
Nilesh Sharma	Ramjanam Tiwary
Ram Bhagat	Ramlakhan Rai
Ram Janam Tiwari	Rampravesh Prasad
Ram Pravesh Yadav	RamSevak Rai Yadav
Sanjeev Singh	Santosh Singh
Santosh Singh	Sudarshanacharya
-	Virendra Singh
-	Vishwanath Yadav
-	Yogendra Pradhan
-	Yogendra Singh

*names those match are highlighted

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Compassion Unlimited Plus Action (CUPA) is a non-profit public charitable trust registered in 1991 that works for the welfare of all animals. Since 1994, CUPA has worked in close collaboration with government departments and agencies on various projects. CUPA's mission is to protect animals from abuse and violence and do what may be required to alleviate their suffering at the hands of humans. CUPA does not differentiate among pet, stray or wild animals, since all of them may require assistance and relief from cruelty, neglect and harm. The organisation's objective has been to design services and facilities which are employed fully in the realisation of these goals.

Asian Nature Conservation Foundation (ANCF) is a non-profit public charitable trust set up to meet the need for an informed decision-making framework to stem the rapidly declining natural landscape and biological diversity of India and other countries of tropical Asia. The Foundation undertakes activities independently and in coordination with governmental agencies, research institutions, conservation NGOs and individuals from India and abroad, in all matters relating to the conservation of natural resources and biodiversity, endangered flora and fauna, wildlife habitats and environment including forests and wetlands. It participates and disseminates the procured information, knowledge and inferences in professional, academic and public foray.

Be As One Foundation, is an international non-profit conservation organisation; working as an open community providing support, advice, education and research to holistic projects that benefit wildlife, promote animal welfare, the environment and local people. The Foundation believes in working in close collaboration with local community leaders, organizations and governments. Be As One is dedicated to the principles of openness and transparency in all its projects.

World Society for Protection of Animals (WSPA) With consultative status at the United Nations and the Council of Europe, WSPA is the world's largest alliance of animal welfare societies, forming a network with 910 member organisations in 153 countries. WSPA brings together people and organisations throughout the world to challenge global animal welfare issues. It has 13 offices and thousands of supporters worldwide.

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As one observes elephants in Sonapur mela, Bihar, India, the welfare of the animal displayed in the mela is visible, but the reasons they are displayed here is difficult to understand. This investigation is based on 4 days of observations carried out in the mela and this personal observations or random thoughts encountered by being there has facilitated in developing some interesting insights on Sonapur mela and the elephants displayed there.

