

THE LION AND THE UNICORN: FIGHTING FOR SURVIVAL¹DIVYABHANUSINH²¹Accepted January 29, 2018²Suryodaya' 310 GOM Defence Colony, Vaishali Marg, Jaipur 302 021, Rajasthan, India. Email: sawaj_cheetah@rediffmail.com

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BACKGROUND

Consequent to the revolt of 1857–58, the British government took over the reins of governance of the Indian Empire from the East India Company. The latter's coat of arms was replaced by the royal signet which became thenceforth the symbol of empire. Its dexter supporter was the British lion while its sinister supporter was the mythical unicorn so famous in European heraldry.

The Lion is real enough, though the unicorn is a mythical equid which has a horn growing out of its forehead. Such an animal did not populate terra firma. It appears to have evolved out of inaccurate descriptions of the true unicorn, the greater one-horned rhinoceros which is endemic to the Indian subcontinent. This the ancient Greek travellers to India found fascinating and their accounts got inaccurately portrayed as a horse in Europe over centuries. This in turn found a place in European symbolism.

In the present paper, we are concerned with Asia's last lions, *Panthera leo persica*, and the greater one-horned rhinoceros *Rhinoceros unicornis*, the true and only one of the two land animals to be a unicorn.

Asia's lions belong to the cat family which has 41 species (Cat News 2017), whereas this rhinoceros is among the five extant species with two being from the Asian continent: the Javan rhinoceros, *Rhinoceros sondaicus*, a smaller unicorn than the greater one-horned rhinoceros, and the Sumatran rhinoceros *Dicerorhinus sumatrensis*, which is hairy and is endowed with two horns. These animals are extinct in India. The reader may well ask: what do the two animals, one a cat and a carnivore, while the other, a hoofed animal and a herbivore, inhabiting quite literally two opposing ends of India, have in common apart from inspiring European heraldry? It is surprising that though the two are unlike each other, they have a lot in common in their experience of human depredations over the ages and

particularly in the last two centuries, which we shall examine at some length here.

Asia' lions: decline and resurrection

The realm of the lion in Asia extended from Palestine, the Arabian Peninsula, Mesopotamia, Khuzestan and Fars areas of Iran, to the Indian subcontinent from Baluchistan to Palamau in Bihar. However, by 1942 the animal had disappeared from its entire range except for the relict population in the Saurashtra peninsula in India. The last lion in Iran was shot in the same year, north-west of the city of Dezful (Firouz 2005). The fate of the animal, therefore, became confined to India alone. During the first half of the 19th century, lions were found at various locations in north India though in decreasing numbers. By the end of the century they were confined within the territories of Junagadh, Baroda, Bhavnagar, and other smaller states, i.e. in and around the Gir forest. There was no viable population of the lion left elsewhere in Asia by this time.

That very few lions survived alarmed Junagadh state during the reign of Nawab Mahabatkhanji II (1851–1882), who ordered their strict protection in 1879, and the state notified strict rules for shikar in general the succeeding year. In 1896, Nawab Rasulkhanji's administration (1892–1911) again promulgated strict rules for shikar and required a special permit for shooting lions. Such permits were to be given for special reasons and circumstances only – such permits were in fact given for important personages, not frequently though. It is noteworthy that shikar of peafowl was totally banned under these rules. Additionally, the Nawab removed a large portion of the Gir forest from the revenue department and transferred it to the forest department to better manage it and stop illegal activities¹. That apart, a sanctuary was created for lions in 1906, but it appears that the proposal remained on paper only².

¹Gujarat State Archives, District Record Office, Junagadh, File No. Nil, Political Agency Notification No. 22 of May 10, 1879; *Dustural Umal Sarkar Junagadh* (The Junagadh State Gazette), Junagadh, Vol. 23, No. 9, April 1880; *Sansthan Junagadh Revenue Manual* Vol. 3, *Junagadh Rajyana Upyog Mate*, Compiled by Dularam Goverdhan Vyas, Notification No. 1638, Resolution No. 1877, State Press, Junagadh. 1907–08.

²*Sansthan Junagadh: Administration Report*, Junagadh Sarkari Chapkhana, Junagadh, 1907, pp. 2, 21.

It was during Nawab Rasulkhanji's reign that Lord Curzon, Viceroy and Governor-General of India (1899–1905), desired to shoot a lion during his state visit to Junagadh in November 1900. However, the Viceroy heard that very few lions survived and there was also a strong newspaper report against his proposed shikar. Therefore, he cancelled it (Moose 1957). While being disappointed with the viceregal decision, Nawab Rasulkhanji promptly challenged the report of a few lions surviving and hoped that the Viceroy would visit Junagadh again before demitting office for lion shikar³. In the event, this did not come to pass.

The belief that the lion was in imminent danger of a catastrophe had taken root for some time, particularly in Junagadh state, apart from among the British officers. Maj. Gen. William Rice who had indulged in lion shikar before the revolt of 1857–58, estimated that there were only 300 lions left in the Gir. The Kathiawar Gazetteer of 1884 however, reported that only 10 or 12 lions were left in the Gir (Edwards and Fraser 1907; Rice 1884). This was an obvious exaggeration. Col. J.W. Watson's statistical account of Junagadh of 1884 records the lion to be the premier mammal of the state, but rings no alarm bells regarding their depleting numbers (Watson 1884). Nor did Lt. Col. L.L. Fenton, who was in the Gir during the great famine of 1899–1900, raise a concern for them except for saying that now these animals were to be found in the Gir only (Fenton c. 1924). Two estimations were done in 1920, one by a British officer P.R. Cadell and another by J.M. Ratnagar of the Bombay Forest Service who came up with the figures of "about 50" and "at least 100" respectively (Rashid and David 1992). We have already noted that Nawab Rasulkhanji himself had refuted the claim of lions being very few in numbers to Lord Curzon, though at the same time he refused to part with any of them to Gwalior state because very few of them were left, as we shall see later.

While all this was going on, the last Nawab of Junagadh, Mahabatkhanji III, had ascended the throne in 1911. As he was a minor at that time, the administration of the state was taken over by the British government till the Nawab became a major in 1920. He ruled till 1947 when he made a politically naïve and disastrous decision for himself and his subjects, to accede Junagadh state to Pakistan. Fortunately, he was not fond of shikar and possibly shot not more than a lion or two throughout his 37 years' reign. In fact, he was a keen protector of lions and he even threatened the Governor of Bombay Presidency by stating that he would burn the Gir forest if the British government would not stop the depredations of

other princes who were poaching "his" lions. He claimed ownership of all lions including those found outside the confines of his state⁴. The Nawabs of Junagadh considered lions as royal game in the ancient traditions of kings. They were to be hunted only by the king and others could only hunt them upon his sufferance.

It was during Mahabatkhanji III's reign that J. Monteath, Diwan of Junagadh, got yet another survey of the lion population done in 1937. The result was 287 lions, but he wisely made the figure of "not less than 150" lions public!⁵

The Nawab's decision to accede to Pakistan, the consequent chaos in the state, the installation of *Arzi Hukumat* and the subsequent absorption of the state into Saurashtra state caused uncertainty and brought difficult times to Junagadh's human and animal subjects, particularly its lions. The closely protected Gir forest became open to all and widespread destruction of wildlife was reported. The fledgling Saurashtra state was alarmed. It invited Bombay Natural History Society under the leadership of M.A. Wynter-Blyth, Principal of Rajkumar College, Rajkot (1948–1963) and an expert on lions, along with R.S. Dharmakumarsinhji of Bhavnagar to conduct a systematic pugmark based population count of lions in the state. Their detailed, painstaking efforts resulted in an estimated population range of 217 and 227 lions in 1949 (Dharmakumarsinhji and Wynter-Blyth 1951; Wynter-Blyth 1949; Wynter-Blyth and Dharmakumarsinhji 1950). This was a decline from J. Monteath's figure of 287 from a decade earlier.

Saurashtra state conducted one more survey in 1953 (before the state itself disappeared and became a part of Gujarat) and came up with a figure of 290. This was followed by an estimation by Gujarat state in 1963, when the number was 285. The estimations of 1968, 1974, 1979, and 1985 showed a decline as a result of various causes including poisoned baits or kills. A slow recovery started from 1990, with a figure of 284 lions. From then on, the population has continued increasing, to 523 by 2015. A recent newspaper report states that the lion population has shot up to about 650 in two years (Singh 2017, p. 79; *Times of India*: Lion population roars to 650 in Gujarat forests, 4th August 2017, New Delhi). To me this appears to be an exaggeration, though there is sufficient reason to believe that their number is more than the figure of 523. This is possible as Gujarat is largely a vegetarian state. There is an unlimited availability of cattle. Lions are able to live even in the *Prosopis juliflora* dominated habitats. Nilgai are common in the agriculture landscape, and fearing the wrath of the Hindus they are not poached even by Muslims. Wild pigs abhorred by the Muslims are also common.

³ *Gujarat State Archives*, File No. 49, 1901.

⁴ *Maharashtra State Archives*, File No. 2438 Pol. Dept., Junagadh's letter to A.G. of June 29, 1921, Mumbai.

⁵ *Gujarat State Archives*, District Record Office, Junagadh, File No. 10/8, 1937.

This increase in numbers has shown that lions have taken the matter of landscape planning seriously into their own paws and are reoccupying their former range with gusto, without any help from the government. Lions are found in an area of 22,000 sq. km of the Saurashtra peninsula, according to an estimation done in 2015. Of the total lion population of 523 in the same year, only 356 lived in protected areas, while the balance 167 lived outside as shown in Table 1 below.

There is some confusion regarding the total area now frequented by lions. The government of Gujarat gives us a figure of 22,000 sq. km, whereas Dr. H.S. Singh, IFS, retired Chief Conservator of Forests, Gujarat, states that the range of the lion was an area of 10,500 sq. km by 2010, which had subsequently increased to 12–13,000 sq. km by 2015 (Singh 2017, pp. 222–223). However, this need not detain us here as the pertinent point is that the lions have re-colonized a huge area within the Saurashtra Peninsula.

It is remarkable that while the lions have done a commendable reoccupation of their former ranges in Saurashtra, the one area from which they have steered clear till date is the 192.31 sq. km Barda sanctuary. A highway is reported to be one of the barriers. This is the sanctuary the government of Gujarat had hoped would become a “second home” of sorts for the lion.

Greater one-horned rhinoceros: decline and resurrection

The rhino is writ large on the seals found in various sites of Harappan culture. It adorns more than 40 of these and is pipped to the post by the elephant only, which is found on 55

of these (Mahadevan 1977). Since the script of this ancient civilization has yet to be deciphered, we do not know the animal’s significance to the civilization. But it does establish the rhino’s westernmost range from c. 2500 BCE or earlier onwards.

In early India, Greek travellers reported unicorns from c. 300 BCE onwards. Kumaragupta I hunted rhinos and struck gold coins commemorating his prowess in the 4th century CE (Bose 2015). In medieval India, Abu Rahim Albiruni who spent several years in the Punjab c. 1030 CE, noted its presence in North India in large numbers. Muhammad Ibn Batuta recorded its presence in the Punjab c. 1332 CE (Sachau 1983; Gibb 1871). Babur hunted rhinos near the Swat river on entering India in 1511 CE and again at Bigram near Peshawar in 1526. *Baburnama*, his autobiography, records that they were numerous in the region and Jahangir hunted one near Aligarh in U.P. in 1624 (Das 2018a). It appears that by this time rhino numbers were depleting drastically. In 1769, Col. Jean-Baptist Gentile visited Shuja-ud-Daula’s court at Faizabad and drew maps of the areas of Awadh. In these he depicted rhinos all over (Das 2018b).

But by the time the British got down to their shikar and their habit of recording in writing everything they saw, the rhino was confined to the Terai regions of United Provinces, Nepal, Bhutan, and the Bengal Presidency which included present day West Bengal, Bangladesh, Assam, and other states of north-east India. Though they had encountered the rhino soon after their arrival in Bengal, among the first somewhat detailed account of the animal is found in Capt. Thomas Williamson’s *Oriental Field Sports* published in 1807,

Table 1: Lion population in Saurashtra, 2015

S. No.	Protected Area	Area in sq. km	Total area in sq. km	No. of Lions	Total No. of Lions
1.	Gir National Park	258.71		304	
2.	Gir Sanctuary	1,412.13			
3.	Panya Sanctuary	39.64		11	
4.	Mityala Sanctuary	18.22		8	
5.	Girnar Sanctuary	180.00		33	
			1,908.70		356
Outside Protected Area					
6.	South-western coast (Sutrapada-Kodinar-Veraval-Una)			32	
7.	South-eastern coast (Rajula-Jaffrabad-Nageshree)			18	
8.	Savar Kundla, Lilia and adjoining areas of Amroli district			80	
9.	Bhavnagar district			37	
			c. 20,000		167
Grand Total			c. 22,000		523 (Ranjitsinh 2017a)

50 years after the Battle of Plassey, which established the East India Company as a temporal power on the Subcontinent. While Williamson (1807) recounts shikar events, he also notes that the animal is no longer found east of the Ganges, presumably he means some regions of present day Bangladesh and beyond. This may not be accurate, but it was certainly indicative of the animal's plight. "Maori" – James Inglis – an indigo planter in north Bihar on the border of Nepal, writing of his experiences there before the 1857–58 revolt, recorded that the Rana rulers of Nepal did not allow anyone to hunt rhinos and they alone shot them, it was royal game ("Maori" 1878). Capt. J.H. Baldwin, writing about the same time, recorded that the animal was found on the Sharda river in Nepal, and in Pilibhit and Gorakhpur districts, "but it is now extinct there or nearly so". Col. Alexander A. Kinloch followed soon thereafter. Writing in 1866, he recorded that the rhino had become extinct around Jalpaiguri due to being hunted and large tracts of forest having been cleared for tea plantations. In the Bhutan dooars and in Assam, where there were heavy "reed" (elephant grass) "occasionally several congregate in one covert" (Baldwin 1877; Kinloch 1885). F.G. Aflalo produced a book in 1904 for "sportsmen" describing various sports available to the British in the empire. In this lexicon he noted that around 1860, the animals were numerous and several could be hunted in a single day, but "owing to indiscriminate slaughter of both sexes and all sizes, their numbers have been terribly reduced." (Aflalo 1904).

The threats to the rhino's existence were manifold, such as destruction of habitat, poaching by locals for its body parts to be used as charms or for their presumed medicinal properties, and indeed hunting by both Indian and British "sportsmen". The latter are fairly well recorded and a couple of examples will suffice. Lord Curzon went to the Nepal Terai in a previously unplanned visit and bagged two rhinos in a day's shoot (Ellison 1925; Russel 1900). The Rana rulers of Nepal regularly mounted grand shikar camps for themselves and for their important guests. In 1911, a special shikar was organized for King George V. Over a period of 10 days, 645 elephants were used and a bag of 18 rhinos, 30 tigers, and 4 bears was secured (Dunn 2015).

While several British officers and "boxwallahs" hunted, the Indians were not far behind. Writing in 1910, the forester Sainthill Eardly-Willmot noted that the rhinos had become very rare in Bengal Terai, the "Maharaja of Cooch Behar who was a keen sportsman and [consequently] the head of game had become insufficient [in his state territories] to afford diversion both to himself and his guests" (Eardly-Willmot 1910). The implication being that the Maharaja having finished off the game in his state, was now preying in British

Indian territory. This is not surprising. Maharaja Sir Nripendra Narain Bhup Bahadur ruled over Cooch Behar state with an area 2,900 sq. km. He records in his own memoirs that on one occasion he shot 5 rhinos in a day's shoot! In his shikar career between 1871 and 1907, i.e. 36 years, he shot 207 rhinos along with 365 tigers, 311 leopards, 48 gaur and 438 wild buffaloes! (Cooch-Bihar 1908). Here was a Maharaja who was diametrically opposite of his brother princes, the Nawabs of Junagadh at the other end of the Indian Empire who went out of their way to protect their lions because the lions became too rare to be hunted. In those days, rhino habitat was much larger and possibly there were more rhinos than the general belief regarding their numbers.

But he was not alone in the field. E.P. Stebbing, writing in 1920, noted that the railways and increasing number of sportsmen were the cause of the rhino's decline (Stebbing 1920). Better communications made by the railways had their own ramifications. It will be evident that the rhino was in serious decline for some time by then, and the British government was alive to the threat. Permits for rhino shikar became scarce, a fact not lost on sportsmen. R.D.T. Alexander and A. Martin-Leake recorded in 1932 that it was very difficult to obtain a permit to shoot a rhino which was "as it should be for any rare or near extinct animal" (Alexander and Martin-Leake 1932). Actually, the government had virtually banned rhino hunting around 1905 though some shikar continued.

That the rhino was headed towards extinction was evident. As early as 1902, the British administration had realized that something needed to be done. J.C. Arbuthnot, the officiating commissioner of the Assam Valley district, took up the matter with B. Fuller, Chief Commissioner of Assam, and informed him that the animal had been wiped out except in remote localities at the foot of Bhutan hills, Kamrup and Goalpara and between the Brahmaputra and Mikir hills in Nowgong and Golaghat, where a few individuals existed. Fuller reacted by stating that without legislation it would be difficult to tackle poachers, but he was open to creating an asylum for rhinos by creating a reserve forest (Barthakor and Sahgal 2005, p. 27).

Consequently, a Major P.R.T. Gordon surveyed possible areas for protection in 1904, and E.C. Carr, Conservator of Forests, recommended that Kaziranga be declared a reserve forest. The declaration was finally made in 1908 and it was upgraded to a game sanctuary in 1916. It became a no go area for most visitors, and thus became a haven for poachers by the 1930s. As a result, A.J.W. Milroy, Chief Conservator of Forests, opened the area to the public (Barthakor and Sahgal 2005, pp. 27–29; Gee 1964, p. 154) and this position remained largely unchanged till Independence.

According to popular tradition, Lord Curzon was responsible for saving the rhino. However, Ranjit Barthakor and Bittu Sahgal have shown that the first steps for the conservation of the animal were a result of a few dedicated and concerned British officers. How the Viceroy's name got involved is not clear. S. Deb Roy, a Forest Officer of Assam and a remarkable conservationist, believed that the Vicerine Lady Curzon visited Kaziranga around 1900. She failed to see a single rhino and had to be satisfied by seeing its spoor. She ultimately persuaded her husband to issue a notification to protect the animal. However, there is no written record of such a visit (Barthakor and Sahgal 2005, p. 31), nor did Lord Curzon visit Kaziranga. Be that as it may, the tradition continues.

It is not out of place to mention here that the Viceroy was very much alive to the rhino's plight. In his celebrated reply to the Burma Game Association of 1902 to their humble memo seeking permission for sportsmen to shoot the brow antlered deer, the thamin *Rucervus eldii thamin*, he wrote:

"Until the Mutiny [1857–58] lions were shot in Central India. They are now confined to an ever narrowing patch of forest in Kathiawar. I was on the verge of contributing to their reduction a year ago myself, but fortunately I found out my mistake in time, and was able to adopt a restraint which I hope the others will follow... The rhinoceros is all but exterminated save in Assam."⁶

He makes no mention of any visit to Kaziranga or elsewhere in Assam for rhino shikar. Of course, he wrote this in 1902 and he could certainly have gone there prior to his untimely departure from India in 1905. As noted earlier, however, it was in his viceroyalty that the very first steps to protect the rhino were taken. Much later, Bengal Presidency formalized protection by passing the Bengal Rhinoceros Protection Act in 1932, which provided for punishments for illegal trade of rhino horn and this act was followed by a similar act post Independence in 1954.

The question, therefore, is what were the rhino numbers during the British period? What did India inherit in 1947 and what was the situation in Nepal? According to one authority, only 12 rhinos were believed to have existed in the entire Kaziranga area around the year 1900. One estimate puts a figure of about 200 for the entire population of the animal about the same time (Ranjitsinh 1997; Rookmaaker *et al.* 2016, p. 1–2, 449). Soon after Independence, concern for the rhino was voiced by no less than M.R. Medhi, Chief Minister of Assam. In a letter he wrote to Prime Minister Jawaharlal Nehru in 1954, he confessed that the animal was on the verge of extinction in his state (Saikia 2005). P.D. Stracey, a well-known forest officer and Director of the Forest Research

Institute, Dehradun, gave another early estimate in the post Independence period in 1960: 150 in the Kaziranga area of 430 sq. km from a total of 300 in all Assam, 50 in Bengal and another 300 in Nepal, thus concluding that there were more than 600 animals left. He hastened to add, though, that "No accurate census of this animal so possible [sic] however and all estimates of its numbers are to be treated with caution." E.P. Gee, the well-known wildlife enthusiast and tea planter estimated their number to be 625 in 1964 with 65 in Bengal, 375 in Assam, and 185 in Nepal. It will be noticed that though the totals of the two estimations are not far apart, the number for Nepal is very different from P.D. Stracey's figure. Five years later, Balakrishna Seshadri, an engineer turned wildlife conservationist, came up with a figure of 745. It is not clear how these figures were arrived at by these authorities, their accuracy may be moot since we do not know their basis, but the general trend is obvious. In a more recent estimation, Kees Rookmaaker gives us a total of 200 in the year 1900 (Stracey 1963; Gee 1964, p. 157; Seshadri 1969; Rookmaaker *et al.* 2016, p. 6). From all these, one may conclude that the efforts of the Indian and Nepalese governments were bearing fruit and the rhino was on the road to recovery, as we shall see presently.

In Nepal, the animal has had a roller coaster ride which we may briefly note, though we have already mentioned their estimated figures by Indian authorities. The ruling clan of Ranas considered rhino as royal game and only themselves and their important guests hunted these, as noted earlier. But because of this reason the animal received protection from depredations of others. Hemanta Misra of Nepal, the winner of J. Paul Getty Award for Wildlife Conservation for his efforts at halting the extinction of the rhino in the country, gives a very different picture from Kees Rookmaaker's estimation. He asserts that there were 1,000 rhinos in Chitwan NP alone around the year 1900. But their estimated number had declined for all of Nepal to 800 by 1950, and between 90 and 108 by 1968, as a result of various social and political upheavals. King Birendra Bir Bikram Shah, during his reign from 1972 onwards, instituted strict protection measures for the rhinos. As a result, their numbers shot back to 450 in Chitwan NP alone. With regicide in 2001 and subsequent political unrest in the country, the rhinos suffered again. While their population had grown to 550, it came down to 370 by 2005 for all of Nepal (Misra and Ottaway 2012). How the rhino will fare under the democratic dispensation in the long run, has to be seen.

With a total population of about 3,500 today, the unicorn has come a long way from the bottleneck it went through

⁶National Archives of India, Home Public, August 1904, No. 15.

Since 1947, with protection provided by the governments of India and Nepal, rhinos have survived and grown. Without going into periodic estimations over the years, we may note the population figures of 2015 (Table 2).

Table 2: Rhino population in India and Nepal, 2015

Protected Area	Area in sq. km	Total area in sq. km for country	Total no. of rhinos	Total no. of rhinos for country
India				
Kaziranga NP	884.43		2,401	
Jaldapara NP	216		200	
Orang NP				
Pobitora WLS	78.80		100	
Gurumara NP	38.81		92	
Dudhwa NP	79		56	
Manas NP	660		32	
	500		32	
		2,857.04		2,913
Nepal				
Chitwan NP	932		605	
Bardia NP	968		29	
Suklaphanta WR	305		8	
Parsa WR	499		3	
		2,704		645
Grand Total		5,561.04		3,558

NP = National Park, WLS = Wildlife Sanctuary, WR = Wildlife Reserve

[Data obtained by Dilpreet B. Chhabra, Traffic India, from government sources; Rookmaaker *et al.* (2016, p. 12)]

at the dawn of the 20th century. It is sad to record that the animal is probably locally extinct in Bhutan. Even its success elsewhere has had its own challenges.

A Second Home for Asia’s Lions

Lions have been doing rather well for themselves in the Saurashtra peninsula until now. Yet, a second home is essential which should be geographically as far as possible from its present stronghold. The reasons for this are obvious. The entire lion population is in one area. That their range is about 22,000 sq. km is no insurance as epidemics of diseases or other natural calamities would make them vulnerable in one location. In 1962, a bloodsucking fly *Stomoxys calcitrans* killed 90 lions in the Ngorogoro Crater, Tanzania, leaving

only 10 survivors. This affected the reproductive capacity of the surviving males. The Serengeti National Park of Tanzania lost 1,000 lions – one third of its total population – to canine distemper virus (CDV) in eight months in 1993 (O’Brien 2003, pp. 39, 115). CDV is present in the canine population in India. India has a large free-ranging dog population. CDV has already come to the environs of the Gir forest and current reports suggest that large numbers of lions have succumbed to it already. What this calamity shall lead to, is moot. The forest is prone to cyclones and floods and famines as well. Fortunately, natural calamities have not taken an irreparable toll on the lion population till date, but that is not a guarantee that it will not occur in the future. Serengeti National Park itself, which is 14,500 sq. km, a large area by any standard (Williams *et al.* 1981), suffered from it.

Gwalior State in Central India was home to lions, but around the beginning of the 20th century they had become extinct. Maharaja Madho Rao Scindia (1888–1925) requested Junagadh State through the British government, if a few lions could be spared from the Gir. Nawab Rasulkhanji, however, was not willing to part with any. He promptly replied that:

“owing to some hunting, [some having] fallen victims in the dire calamity of 1900 [the famine], some having been killed outright by the Gaikwad’s subjects and servants of the Kodinar Division [of Baroda State] and some having been otherwise destroyed... that it is almost impossible [to spare lions for Gwalior].”

Thus the Nawab laid the foundation for the ownership of all lions in 1901. His son and successor, Nawab Mahabatkhanji III went a step further in 1929. In a letter to the Agent to the Governor of Bombay Presidency in Kathiawar, E. Maconochie, he wrote “As a matter of fact the real point at issue is the ownership and political right of inviting distinguished visitors to Kathiawad for lion shikar... I would therefore ask that the [Imperial] government may fully consider the matter and use their influence that my rights are respected and especially the scandal of tying up buffaloes within sight of my [Junagadh State’s] borders is stopped.”⁷ The buffaloes were tied to attract the lions away from the Junagadh State.

It is noteworthy that the first attempt at translocating lions failed in 1901 even before it started – Gwalior State got African lions to replace their lost lions (which were wiped out in a few years thereafter) because Nawab Rasulkhanji had refused to part with any and laid the foundation for the claim of their ownership exclusively for Junagadh, which got enlarged with historical and temporal changes.

⁷Gujarat State Archives File No. 49, 1901; Maharashtra State Archives, 1921, File No. 1438, Pol. Dept., Junagadh’s letter to A.G. of June, 29, 1921.

The next attempt took place as a result of the generosity of Saurashtra State in 1956 just before the state itself was to disappear in the cauldron of linguistic reorganisation of states. This second home was the Chakia forest of Uttar Pradesh near Varanasi, called the Chandraprabha Sanctuary. A male lion and two lionesses from the Gir were caught and released there. Their number grew to 11 by 1965, but the small sanctuary could not hold them, the lions wandered out and were soon wiped out (Negi 1966).

The next attempt was made in 1976 when a committee consisting of R.S. Dharmakumarsinhji and M.K. Ranjitsinh was formed to survey Jaisalmer area in Rajasthan. A report was made but that's where it ended. The very next year saw a proposal being mooted for a second home in Iran, which would have been the mother of all *ghar wapasi*. After all, Asia's lions are scientifically known as *Panthera leo persica*, Persian lions. Arzan National Park was created in Iran for the purpose of reintroducing lions. The idea behind this was to get in return Asiatic cheetahs *Acinonyx jubatus venaticus* to India in exchange as it had become extinct in India (Humphreys and Kahrom 1995; Ranjitsinh 2017b). Thus both countries would have been able to reintroduce their lost cats. There were political upheavals in India from 1975 to 1977 and beyond, and Mohammad Reza Shah II Pahlavi himself went the way of the lion in Iran soon thereafter. Eskandar Firouz, the environment minister, lost his job and was imprisoned for several years by the new regime there. The idea died for good.

Once again in 1993, another attempt commenced. The Wildlife Institute of India was commissioned to do a survey for a possible second home site (Chellam *et al.* 1995). They selected Kuno Palpur Sanctuary in Madhya Pradesh with an area of 344.68 sq. km. The M.P. government resettled 1,650 families of 23 villages, making the area suitable for lions. Additionally, an area of 923 sq. km was transferred to the new Kuno division, bringing it under a single management (Sharma *et al.* 2002).

While the new site was being prepared, opposition to the project appeared for the first time. Several NGOs including Saurashtra Paryavaran Samrakshan Parishad took the lead, they resorted to dharna at Talala, Gir to oppose translocation. The situation soon escalated with local support which led Shankarsinh Vaghela, Chief Minister of Gujarat, to declare at a press conference on 19th April, 1997, that "not a single lion cub, not to mention a lion, shall be permitted to be translocated anywhere [outside Gujarat]. The government of Gujarat was capable of protecting lions totally [in Gujarat itself]". In 2002, Dolat Desai, then Forest Minister of Gujarat,

stated among other things that "the people of Gujarat are against the idea [of lions being taken out of Gujarat] and therefore we shall never agree to such a plan." (*Phulchhab*, April 14, 1994; January 24 & February 15, 1995; April 20, 1997; July 30, 2002; *Times of India*, Jaipur, August 2, 2003). Thus, the successor governments of Gujarat carried and expanded their claims to ownership of lions first made by the Nawabs of Junagadh, to their logical but unfortunate conclusion.

From the foregoing it will be seen that whereas the Saurashtra State did allow lions to be translocated to U.P., the present government of Gujarat is unwilling to do so. There has always been local pride in lions in Saurashtra, this is obvious from the fact that so many of them are roaming around all over the peninsula and are growing in numbers. However, apart from this notion of Gujarat's *asmita* (pride) – its uniqueness in so far as it is the only political entity outside Africa to have lions, the matter has been politicized over a period of time. As the lions go further and further afield from Gir, the love for lions will decrease. It is alarming to note that two lions have died recently of poisoning by people who lost their livestock. This is an old problem which was virtually forgotten until now, but it has reappeared and it may well become more pronounced. Some man-killing also happened. Another viewpoint is that if lions go out of Gujarat, their diminished "*asmita*" will diminish the urge to protect them among the people of the state. The late K.S. Lavkumar of Jasdan, renowned conservationist, voiced his concerns on this count as early as 1956 when the earlier attempt was made at translocation (Lavkumar 1956). He continued to voice his concern several times to the author and others till his death on March 02, 2015.

The matter of translocation reached the Supreme Court as a result of a Public Interest Litigation. The court, after considering all the facts put before it, ordered that the lions should be translocated to Kuno Palpur⁸. A high power committee was instituted as a result of this order in 2013. But, as a result of one cause or another, no translocation has taken place till date and it appears likely to face hurdles in the future.

Be that as it may, in spite of all the scientific reasons for the long-term survival of Asia's lions, a second home for them has yet to materialize. At a recent meeting of the Madhya Pradesh State Wildlife Board, the Chief Minister stated that Kuno Palpur was ready to receive big cats. Since lions from Gujarat were not forthcoming, the state would rehabilitate tigers in it (*Times of India*, Bhopal, 5th December, 2017).

⁸*Supreme Court of India* (2013): 8 Supreme Court cases 234: SCC online SC 345.

A second home for the Greater One-horned Rhinoceros

Kaziranga has a phenomenal number of rhinos – 2,401 at the last count. It is to the credit of the Assam government that the animal has come back from the brink of extinction. Yet there is a need to have as many different sites as far as possible from Kaziranga to avoid a major disaster visiting its stronghold. The National Park is bounded on one side by the temperamental Brahmaputra river which breaks its banks regularly. In 2017, it has done so with disastrous effects. 361 wild animals including 31 rhinos died consequently (*Hindustan Times*, Mumbai, 2nd January, 2018). During the monsoons, the animals are forced to migrate towards Karbi Anglong hills by crossing the busy national highway NH 37. The remaining sides are bounded by paddy fields and villages which have cattle, goats, dogs, poultry, geese, etc., and encroachment is a major problem in the Kaziranga landscape. The rhinos often leave the confines of the park and the cattle from the surrounding villages enter the park. A single virulent disease epidemic can decimate the rhinos, as indeed other fauna.

In all the other locations where rhinos are found, their populations are in double digit numbers only, in all but two locations in India and one in Nepal. This speaks volumes for the importance of Kaziranga. Essentially, the concerns for its survival are the same as for the lions at the other end of India.

As early as 1979, the National Board for Wildlife set up a committee to evaluate the possibilities of finding a second home for the rhino. After a careful study, Dudhwa National Park, U.P., was selected. In 1984, 5 rhinos: one subadult, 2 elderly females, 1 adult male, and 1 older male, were brought to Dudhwa from Pobitora in Assam by air and road. The Nepalese government generously gave 4 females from Chitwan. This was the seed population from which it had grown to 23 by 2015 according to one source and to 35 in 2016 by another (Rookmaaker *et al.* 2016, p. 12; Sharma and Gupta 2015; Singh and Rao 1984), despite the ever present threat of poachers and occasional predation by tigers. For example, the rhino named Sahdev was killed by a tiger on 3rd March, 2017 (Ravi Singh, CEO, WWF-India, *pers. comm.* 2017).

The 1984 translocation took place with the cooperation of the Assam government. But soon thereafter, regional nationalism took charge and the Assamese people who take pride in their *gairda* took ownership of the animal. Consequently, the state government no longer felt able to part with any more animals for translocation outside Assam. This stand is difficult to explain, since rhinos are found in U.P. and West Bengal in India, apart from Nepal. Thus Dudhwa is fated to remain isolated unless Nepal again gives rhinos.

Some rhinos do cross over from Bardia in Nepal over into Katarniaghat Wildlife Sanctuary, where 5 to 6 animals are usually reported. Now there is a plan to shift some animals there from the Dudhwa stock. It also appears that the village of Bharatapur, which is in the sanctuary, may be shifted out soon (figures obtained by Amit Sharma and Joydeep Bose of World Wide Fund for Nature-India from Forest Dept., Assam Government).

That being the case, Manas National Park in Assam came on the horizon. This park was hit by political unrest and Bodo insurgency. Rhinos were once found in appreciable numbers there, but they had become locally extinct. Between 2008 and 2012, 12 rhinos were brought in from Pobitora. In 2012, Kaziranga sent 8 more, i.e. a total of 18 animals were brought in. Their population has now increased to 32 in spite of a couple of them having fallen to poachers' depredations (O'Brien 2003, pp. 47–51).

Similar Past, Similar Present, and Some Comparisons

The two animals, one a carnivore and the other a herbivore, with all the attendant differences except for the fact that both are mega fauna, share a very similar fate at the hands of human beings. Both the animals passed through recent bottlenecks, though the alarmingly low population figures reported, in both cases around 1,900, were surely exaggerated.

Recent mtDNA analyses point to an earlier bottleneck in both cases. In the case of the lion, it went through it some 20,000 years ago and some signs of inbreeding are already visible according to Stephen J. O'Brien in the form of a reduced mane, pronounced belly fold, reduction in healthy sperm count and so on in males (Zochokke *et al.* 2011).

In case of the rhino, the population in Nepal appears to have gone through a bottleneck between 2,000 and 10,000 years ago, whereas the Assam population appears to have gone through it between 800 and 4,200 years ago. Since these animals do not show signs of degeneration due to inbreeding, the bottleneck of *c.* 1,900 does not appear to have been as severe as it was made out to be (Rangarajan 2001). Possibly there was greater connectivity of these populations along the Brahmaputra river then.

Both the lion and the rhino were being destroyed by human action. The lion was being shot as vermin and Kathiawar princes paid bounty for destroying 16 of them in 3 years around 1870 (Rangarajan 2000). The rhino, on the other hand, was pursued for its body parts. Additionally, both were pursued for sport by Indian princes – notably the rhino by the Maharaja of Cooch Behar, and by British officers and others. Thus, the bottlenecks in both cases were a result of natural causes and human interaction at different times as well.

Both animals were protected as royal game, by the Junagadh state and the Ranas of Nepal for the lion and the rhino respectively. More importantly in India, the lion received protection from Junagadh state and the rhino under British rule, out of fear that the animals may become extinct, i.e., in the interest of the survival of the species themselves. This protection continued through the succeeding decades and does so even today. It is noteworthy that these animals were the first to be protected for their own sake in the Indian empire. It is not out of place to mention that in Madras Presidency the elephant had received protection as early as 1873, under a specific enactment, and six years later, British India extended protection to them from indiscriminate decimation of their herds (Das *et al.* 2015). However, this was done to ensure a supply of elephants for human activity such as logging or for use as draft animals, and not for protecting the species itself for its own sake.

There is one major aberration though, in the experiences of these animals. In 1947–48, the lion faced an onslaught on itself and its prey as a result of Nawab Mahabatkhanji III's inapt decision to accede Junagadh state to Pakistan. But fortunately it did not happen. The rhino, however, was lucky enough to escape such a calamity in the wake of political changes of the time.

In the case of both the animals, the state authorities felt the need for a second home for their long-term survival. In the case of the lion, the 1956 effort failed. Subsequently, the Gujarat government has taken a view diametrically opposite to that of its predecessor, the Saurashtra government. It now claims ownership of its lions, and the second home in Kuno Palpur, M.P. still awaits its celebrated occupants in spite of the Supreme Court judgment. In the case of the rhino, the earlier attempt at a second home succeeded, though later on the Assam government too was not keen to part with them for translocation outside Assam.

In both cases, the opposition to the translocation of the animals is really a result of recent regional pride, notably absent earlier, which became evident after one translocation having taken place. In the case of the rhino, though, the animal exists in West Bengal, U.P., and Nepal as noted earlier, so the stand of Assam is difficult to understand.

It is not out of place to mention in passing that a recent study has found genetic variations in the rhino populations in Gorumara and Jaldapara in West Bengal and Pobitora, Kaziranga, and Orang in Assam. The study suggests, however, that these areas be treated as a single management unit in view of the fragmented and small populations of rhinos in these locations. Such is not the case of the lions found in one geographically contiguous area recently expanded by them.

The populations of both the animals have one large habitat in India which is their stronghold, in Gir Forest and Kaziranga. The rhino luckily has another in Chitwan, Nepal. The danger in the case of both the animals is that with the disappearance of corridors used by them for local migrations, the fragmented populations would inbreed, causing genetic deformities unless the state in each case takes the matter in its hands and manages the populations scientifically. Furthermore, these habitats are vulnerable to natural calamities such as floods, fire, earthquakes, and human depredations, which can have deleterious effects on the single largest population. Additionally, epidemics of diseases are also a real danger they could face.

Lions face ever present threats to their lives by electrocution, being killed on railway tracks, falling in wells, occasional poisoning of kills, though poaching appears to be controlled for the present. In 2016–17, 12 lions met unnatural deaths in the same year as there were 18 attacks by lions on humans, of which 3 resulted in the death of the latter. There were 5,000 cattle deaths caused by lions and leopards which were compensated for by the government in the same year (Kedar Gore of Corbett Foundation, *pers. comm.* 2015).

The rhinoceros faces onslaught from human beings because of the perceived medicinal properties of its body parts, particularly its horn. In 2015, Kaziranga alone lost 17 rhinos to poachers' depredations and a like number succumbed there in 2016 (*Times of India*, New Delhi, 1st November, 2017). A recent newspaper report claims that only 2 rhinos were poached in 2017 upto October. 260 poachers were arrested since 2014, 48 were arrested in 2017, and 12 poachers were killed in 8 separate encounters (WWF estimation of April 2016, Pranav Chanchani, WWF-India, *pers. comm.* 2017).

It is heartening to record the comeback of both the animals from the brink of extinction, primarily as a result of state intervention and by support of local populations. But success brings in its wake new problems for which alleviation measures can only be spearheaded by the state. Unfortunately, the state is usually reactive in its response rather than proactive. In the meantime, the lion and the rhino will have to keep fighting for their survival. The importance of the success of lion and rhino conservation cannot be overemphasized, in spite of the threats they face in India today. A few comparisons will illustrate the point.

The lion in Africa is fighting a rearguard action and its population throughout the continent is shrinking. The Barbary lion, *Panthera leo leo* which inhabited the African continent above the Sahara desert and which was genetically closest to the Asiatic lion, has been extinct for some time.

The tiger, a top predator on the food chain and iconic like the lion, has had a rough ride too. In Cambodia, the animal is

extinct. In Laos and Vietnam, the population count in April 2016 was 2 and more than 5 respectively, whereas in South China it is less than 7, and in Myanmar it is about 10. The tiger has survived or prospered in Nepal (198), Bhutan (103), Bangladesh (106), Thailand (189), Malaysia (250), Indonesia (371), and Russia (433). In India, the count is 2,226 per the 2016 figure (Haryono *et al.* 2016), an upward trend of sorts from some 1,800 in 1972–73, when population estimations were first done. The USSR started protecting tigers from the 1930s onwards, when it was believed that only 20 to 30 animals survived (Spitsin *et al.* 1987). The USSR has disappeared but Russia continues to give the tiger protection, thus securing its population in the wild. Without going into details, let us note that the animal has survived only because of state interventions and it has declined or vanished where it did not have state support or the support was ineffective.

The situation of the rhinoceros in Asia is even more alarming. Two subspecies of the Javan rhinoceros *Rhinoceros sondaicus inermis* and *R. s. annamiticus* have been completely wiped out from their entire range. The nominate race *R. s. sondaicus* hangs on by a thread, with a population between 55 and 58 in Ujung Kulon National Park in Java, Indonesia (Haryono *et al.* 2016). The case of the two subspecies of the Sumatran rhinoceros is equally depressing. *Dicerorhinus sumatrensis harrisoni* became extinct with the recent Malaysian declaration to that effect, whereas *D. s. sumatrensis* has been wiped out from almost its entire range. Only upto 30 of them survive in Bukit Barisan Selatan, whereas in Way Kambas and Kalimatan, the population figures were held back for security reasons. The total population of *D. s. sumatrensis* is believed to be about 100 in fragmented habitats in Sumatra (Miller *et al.* 2015).

It is fortuitous that in India the Imperial policies, Junagadh State policy, and Indian Republic policies are a continuum which has enabled the lion and the unicorn to survive and prosper in spite of increasing human and livestock populations in the country. Here the case of the tiger in other Asian countries is relevant in so far as here is a mega species of the cat family that has survived where it has received effective state protection. Whereas in the rest of Asia, the absence of postcolonial state protection for the two other species of rhinos have resulted in their being wiped out, except for a few relict populations.

In the case of both the lion and the unicorn, the animals went through severe bottlenecks. Yet their numbers did not go so low that they could not bounce back. In today's scenario in India, the genetically pure wild buffalo *Bubalus arnee arnee* and the Great Indian Bustard *Ardeotis nigriceps* have likely reached the point of no return. For them, state protection has not been forthcoming or it is ineffective or rather late.

Unfortunately, unlike the lion and the unicorn, they are not iconic enough and they do not have the concerns of the people evident in the case of the two animals discussed here. Or for Sangai, the Manipur Brow-antlered Deer *Rucervus eldii eldii*, which may yet prosper because of state action and popular support. On the other hand, the Hangul *Cervus elaphus hanglu*, the state animal of Jammu & Kashmir, has barely managed to survive because of the state's ineffective protection measures and little popular support.

There is a very important takeaway from all this: Mega fauna need mega habitats. Less than 5% of India's land mass is under the protected area network, which in turn faces the brunt of "development". Under India's constitution, all natural resources belong to the state and therefore, it is the sole legal custodian and protector of its fauna and flora. Popular support and non government organizations can only stop the State through legal recourse, encourage it or support it. Several positive results have been claimed by NGOs and rightly so. But these efforts so far are miniscule on the large Indian canvas. These efforts have not been replicated in large enough numbers to make an appreciable dent on a countrywide scale. The state is paramount, only its actions can yield the required results. Only state action can ensure the survival of these two and other animals in the long run.

NOTE

The title of this paper was inspired by an old English ditty. The lion is a symbol of England and it was part of the coat of arms of English kings. In 1603, King James VI of Scotland succeeded Queen Elizabeth I as King James I of England. An equid with a horn growing out of its forehead was part of the coat of arms of Scotland. Hence, the lion and the unicorn were combined and they became the supporters in the new coat of arms thereafter. Thus the mythical unicorn ruled over us as the symbol of the Indian Empire from 1858 to 1947. The ditty inspired by the coat of arms of Britain goes thus:

The Lion and the Unicorn

*The lion and the unicorn were fighting for the crown,
The lion beat the unicorn all around the town;
Some gave them white bread and some gave brown,
Some gave them plum cake and drummed them out of town.*

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