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Mongabay Series: [Asian Rhinos](#)

# Behind rising rhino numbers in Nepal, a complex human story

by Alex Dudley on 19 July 2017

- *The fortunes of the indigenous Tharu people and Nepal's rhinos have been linked for centuries.*
- *The establishment of Chitwan National Park in 1973 deepened the marginalization the Tharu, evicting thousands from their land and depriving them of access to the forest.*
- *Since the 1990s, conservation groups have been working to develop a community-based conservation model that includes the Tharu.*
- *Other ethnic groups have long remained outside the community conservation model, and have in some cases turned to poaching for income.*



An elephant walks through the streets of Suaraha, the gateway to Nepal's Chitwan National Park. Photo by Simon Desmarais via [Flickr](#).

*This is the second in a two-part series on rhino conservation in Nepal's Chitwan National Park. [Read Part One here.](#)*

SAURAHA, Nepal — Upon arriving in Sauraha, the primary gateway to Nepal's Chitwan National Park, the dominance of tourism in the local economy becomes readily apparent. A plethora of budget lodges, souvenir shops selling wood carvings, and tour offices lines the town's main streets. As if to compensate for the relative absence of vehicle traffic in Sauraha, domestic Asian elephants (*Elephas maximus*) regularly lumber down the streets, en route to or from elephant-back safaris inside the park.

One also cannot travel far in Sauraha without spotting iconography of Chitwan's most celebrated animal. Countless murals, souvenirs, and a life-sized statue in the town's square depict the greater one-horned rhinoceros (*Rhinoceros unicornis*). From a low of a hundred individuals in the 1970s, Nepal's population has rebounded to over 600 today. This remarkable comeback owes in large part to the high priority that local communities place on protecting the animals, even as conservation imposes restrictions on their own livelihoods.

The fortunes of both the local Tharu people and rhinos in Nepal have long mirrored one another. For centuries the Terai, the country's southern lowland expanse, was covered in dense forest irrigated by rivers draining the Himalayas. The prevalence of malarial mosquitoes in the humid jungle deterred settlement except by the Tharu people, who had acquired immunity to the disease. The Tharu thereby led an autonomous existence as farmers. They gathered thatch grass from the Terai's grassland and firewood from the forests, grew rice along the riverbanks, and grazed their large cattle herds in open pasture.

Likewise, the presence of malaria acted as a safeguard for the Terai's rhinos, which may have numbered in the thousands before the growth of human settlement. The Tharu did historically harvest the meat from rhinos that had died of natural causes and gathered rhino urine to treat ear infections and asthma. But they did not actively seek out and kill live animals for their horns or meat.

"Definitely the wild animals [gave] a lot of trouble to Tharu people because most Tharu villages are close to the forest," Birenda Mahato, chairperson of Sauraha's Tharu Cultural Museum and Research Center, said in an interview. "At nighttime they came into [our] crops. But [the Tharu] never killed wildlife. That means they loved them."

According to Mahato, the Tharu regularly used mud to depict rhinos on the walls of their huts. Moreover, as recalled in Nepali conservationist Hemanta Mishra's nature memoir, *The Soul of the Rhino*, Tharu folklore accounts for the rhino's origin. Over ten million years ago, Lord Brahma assigned his master designer Viswakarma to create a new and perfect animal unlike any other. After struggling for inspiration, the influence of marijuana eventually allowed Viswakarma to cobble together a new creature using the

best parts of other species. Elephant skin, horse hooves, hare ears, crocodile eyes, and bull's horns (fused into one) comprised the ungainly but elegant rhinoceros. Brahma gave the animal life and Shiva declared that humans would forever preserve it.



A rhino mural adorns a restaurant in Suaraha. Photo by Alex Dudley for Mongabay.

The Tharu's declining fortunes

The Nepali government's eradication of malaria in the Terai during the mid-1950s marked a catastrophic turnaround for both the area's rhinos and indigenous communities. Once the Terai became safe for mass settlement, waves of migrants from the country's degraded hill regions flocked to the area, tempted by more productive land.

The Chitwan Valley's overall population nearly tripled from 36,000 in 1950 to 100,000 a decade later. During the same period, the once dominant Tharu shrank to 14 percent of the population. Moreover, the illiteracy among most of the Tharu population allowed unscrupulous moneylenders to usurp their land. The destruction of 70 percent of the area's forest and grassland in favor of agriculture curtailed their access to forest products and grazing pasture.

Meanwhile, as the Terai became Nepal's breadbasket, habitat loss and poaching caused rhino numbers to plummet. The new wave of settlers did not necessarily share the Tharu's respect for the environment, and turned to poaching rhinos to supply the



burgeoning market for horns in neighboring China and in Yemen. By 1970, only about a hundred individuals persisted in Chitwan, ironically protected because of its status as a royal hunting reserve.

The outcry from local and international conservationists over the impending extinction of Nepalese rhinos led to the creation of the park in 1973 and the deployment of Nepalese army troops to monitor against poaching two years later. These measures gradually revived the rhinos' fortunes, boosting Chitwan's population to almost 550 by 2000.



A Tharu village near Chitwan. The establishment of the park in 1973 contributed to the impoverishment of the Tharu people. Photo by Jean-François Gornet via [Flickr](#).

But despite this success, the establishment of the park further entrenched the marginalization of the Tharu. Some 20,000 villagers were evicted from the park, weakening their linkage to nature and further depriving them of thatch grass and firewood. "We didn't have the community component at that time," National Trust for Nature Conservation (NTNC) officer Naresh Subedi recalled in an interview in Kathmandu. "We were very much focused on protection [and] those community dynamics were not understood in the past."

By the 1990s, even with the recovery of rhino numbers, the limitations of Chitwan's conservation strategy and the local tourism industry had become apparent to both Nepalese and international observers. Despite the profusion of hotels in Sauraha, more than 60 percent were owned by foreigners or Nepalese migrants from elsewhere in the country.

Furthermore, as tourists flocked to Chitwan in the 1980s and 1990s, the Tharu felt the unwanted side effects of the industry's growth. Alongside severe crowding and congestion in Sauraha due to haphazard planning, spiking land prices compelled many Tharu to sell their land, threatening to erode the area's cultural heritage.



A greater one-horned rhino in Chitwan National Park, where more than 600 rhinos now roam. Photo by Steve Hicks via [Flickr](#).

Working to involve the community

Seeking to stem this decline and to distribute park revenue more evenly, the King Mahendra Trust for Nature Conservation (the NTNC's forerunner) and WWF in 1994 devised a novel community-based conservation strategy. Unfenced buffer zones were established outside the park, facilitating both wildlife movement and human settlement.

"The buffer zone concept in Chitwan came out of necessity," Mishra, one of the original architects of Nepalese rhino conservation, recalled in a phone interview. "When we started the park system in the early 70s, we employed the East African model — fences, guns, whatever. But soon after, we realized you could not protect large tracts of land in a sea of humanity. We realized that guns and fences are not the only answers."

Under this legal framework, buffer zone communities managed forests and wildlife in exchange for tourist revenue and limited resource extraction. A buffer zone committee at the top level and a network of elected community forest user group committees registered local villagers, drafted legislation on protection, and utilization, and arranged for security guards to patrol against poaching and illegal deforestation.



Villagers wanting to use the forest paid a membership fee (ranging from \$3-15 depending on income) and either contributed to the guards' salaries or volunteered as guards themselves. In turn, they received the right to collect forest products, like thatch grass, herbs, firewood, and leaf litter (used as fertilizer) in controlled amounts and at certain times. Alongside the rise in rhino numbers, formerly rampant deforestation in and around Chitwan was curbed.

"Village user groups — what is their needs, they say themselves," says Bipi Chaudhary, current chairman of Baghmara Community Forest, commenting on the success of Chitwan's community forestry. Villagers can get everything they need from the community forest, he explained. "They don't need to go inside the park to cut the grass and cut the trees."

Further strengthening the linkage between local people and nature, a bylaw ratified in 1995 and implemented three years later required that 50 percent of Chitwan's revenue be recycled into local development projects in the buffer zone. While the individual villagers do not directly receive this money, they benefit through the buffer zone committee's allocation of funds to local development projects, such as schools, health clinics, water projects, and biogas.



Tourist safari elephants pass a rhino in Chitwan. Photo by Alex Dudley for Mongabay. In addition to the revenue automatically generated by entrance fees to Chitwan, villagers in the buffer zones play host to adventure tourists seeking a more intimate

experience than the standard jeep ride or elephant walk inside the park. Homestays facilitate an in-depth cultural experience, while multi-day walking safaris offer wildlife encounters beyond the constraints of a vehicle. The revenue from tourism, and the active voice given to local communities, has played a vital role in the near-elimination of rhino poaching in Nepal since 2011.

"In Chitwan, we created a win-win scenario," Subedi said. "The ultimate motto, the ultimate vision is: if conservation cannot bring benefits to the communities, then we do not get the support of the communities. So that was realized in the past, and now in Chitwan, what we have created is the revenues taken by the communities."

Yet while Chitwan's integrated conservation strategy has successfully stemmed poaching and generated impressive profits for communities, critics argue that the buffer zone model still falls short of effective decision-making by the Tharu people. The buffer zone chairpersons and NTNC staff remain largely high-caste Brahmins and Chhetris from the country's hill regions, as do most hotel managers and tour operators in Sauraha. "In Sauraha we have more than 100-plus hotels," Mahato said. "Hardly you can find three or four hotels run by the Tharu people."

While buffer zone communities formerly were allowed to spend three months per year gathering thatch grass, this has recently been curtailed to only three days in a whole year. Finally, despite the recent implementation of a government relief fund to compensate for losses caused by wildlife, in practice the community forest must pay for physical damage to crops or property with its own revenue.

However, residents around Chitwan stressed that despite wishing for improvements to the implementation of community-based conservation, they wholeheartedly support the aim of protecting rhinos.

"I am very positive [about] conservation [and] for the wild animals," Mahato said. "[If] someone says, 'You don't like conservation,'...I always say, 'Oh I need conservation. I need the park.' So I only worry about the implementation of the park rules... The policy must be how can [there be] inclusion of Tharu peoples in the management committee too?"





Members of Nepal's Chepang community. Photo by Alex Dudley for Mongabay.

On the margins

In contrast, one ethnicity far more distant from the park has until much more recently faced marginalization from both conservation programs and larger Nepalese society. About two hours' drive from Sauraha, far beyond the park's buffer zones, the stony hills of the Mahabharat Range mark the homeland of the Chepang people, who have long ranked as one of the country's lowest castes. Historically a hunter-gatherer society, the Chepang have more recently shifted to agriculture, but the rugged topography limits yields.

Due to their expert knowledge of the local terrain, international syndicates have long employed them to target rhinos. Many convicted poachers in Nepal claim Chepang extraction, including the notorious Raj Kumar Praja, sentenced last year to 15 years' imprisonment for the poaching of at least 25 rhinos.

Despite the rhino horn's astronomical street price in Vietnam or China, the families of convicted poachers have remained [mired in poverty](#). "If they poach the rhino...they get \$2,000, and then the middleman and ultimate salesman get \$30,000-\$40,000," Subedi said. Nepali observers have long criticized the country's justice system for singling out impoverished foot soldiers, and in turn imposing hardship on their families, while failing to net the kingpins at the top of poaching networks.



However, recent efforts have sought to lift the Chepang out of poverty and provide alternative livelihoods to poaching. A new museum promotes Chepang culture to Sauraha tourists, and joint efforts by the Nepalese government and WWF have promoted agro-based farming and youth patrols against poaching modeled on those in the Tharu buffer zones. Furthermore, through contributions from Denver-based conservation organization Team Nepalorado, last spring the villages obtained bee fences both to protect their crops from elephants and rhinos and to market honey.

In the long run, it is hoped that both the Tharu and the Chepang can minimize hostilities with wildlife while profiting from nature and cultural tourism, thereby preserving the conservation momentum of the last decade.

“Now their concept is: the forest and the animals— if they protect them, [they] will be saved for the next generation,” Sauraha resident and Tharu community activist Giridhari Chaudhary said. “And the people who are killing the rhinos, the poachers, they are not Tharus I would say. The poachers when they killed a rhino...they got very little money for one. But when the people save the rhino for the future, when tourists come, they can earn from that.”



Bee fences aim to generate income and reduce human-wildlife conflict. Photo by Alex Dudley for Mongabay.