

Mongabay Series: [Asian Rhinos](#)

# Flood hits India's Kaziranga National Park, killing four rhinos

by **Bikash Kumar Bhattacharya** on 24 July 2017

- *Annual monsoon floods are a natural part of Kaziranga National Park's ecosystem but pose multiple threats to animals, including the risk of drowning or getting poached or hit by cars while fleeing rising water.*
- *According to officials, 81 animals have been killed in this year's flood, including four rhinos. Another 78 animals have been stranded or injured.*
- *Mitigation measures include increased monitoring by rangers, police and drones; closely tracking the speed of vehicles through the park; and the construction of artificial highlands.*
- *Authorities are also considering a controversial proposal to build a road-cum-embankment to prevent floodwaters from inundating the park.*

KAZIRANGA NATIONAL PARK, India — Annual monsoon floods earlier this month inundated more than 70 percent of India's Kaziranga National Park, home to the world's largest population of greater one-horned rhinos (*Rhinoceros unicornis*). The water level has now receded, but "about 15 percent of the park is still under water," Kaziranga divisional forest officer Rohini Ballav Saikia told Mongabay on July 19.

Abutting the Brahmaputra River and situated in a floodplain, the park naturally witnesses floods every year. While floodwater replenishes Kaziranga's ecosystem, it also puts the park's animals in danger. "The animals, particularly the rhinos, face multiple threats during floods," said Saikia. "On the one hand, swift currents of the floodwater tend to wash away the animals. On the other, floods force them to seek refuge in the nearby Karbi Anglong hills, crossing the National Highway 37. It increases the vulnerability of the rhinos to poaching."



Near Mihimukh in Kaziranga National Park floodwater kept the low-lying lands inundated till Friday. Photo by Ankita Bora.

The plight of the rhinos

According to park officials, four rhinos, including calves, have so far drowned in this year's flood. "The figure might rise, as more carcasses could surface once the floodwater completely recedes," park director Satyendra Prasad Singh said in a July 20 interview.

Singh also confirmed one incident of a rhino straying out of the park while fleeing floodwater. On July 12, an adult rhino traveled eight kilometers outside the park's borders, ending up in the village of Panibhoral. It took several days for forest officials to chase the animal back to the protected areas, said Singh.



A male rhino calf being rescued by a CWRC mobile veterinary team. Photo courtesy of Press Trust of India.

The Kaziranga-based Centre for Wildlife Rehabilitation and Conservation (CWRC) also had to rescue a young rhino calf in the park's flood-hit Burhapahar area. "On 15 July, a mobile veterinary service team rescued the 3 to 4-month-old male rhino calf, separated from its mother. It has developed a lung infection, and is undergoing treatment," said Rathin Barman, the joint director of CWRC.

"He is missing his mum acutely, and is frightened," said Pranab Basumatary, the International Fund for Animal Welfare and Wildlife Trust of India (IFAW-WTI) wildlife veterinarian who is treating the baby rhino. "Initially, he tried to attack the caregivers, but now he's settling down and has started taking food."

Kumud Bordoloi, a forest guard posted in Kaziranga's Kohora range, reported to Mongabay an incident in which rhino got stuck in the mud near the park's Bhengrai area. "It was stuck in mud for more than an hour. Though the water had dried, the area was filled with sticky mud. We kept watch and tried to help the entrapped animal out. Finally, however, it succeeded in coming out of the mud."


#### Mitigation measures

As of July 20, 81 animal casualties had been reported in this year's flood, including 14 killed by speeding vehicles on National Highway 37, at the park's southern edge. According to CWRC records, another 78 animals stranded or injured in floods

— including the male rhino calf — had been rescued, Rathin Barman said. The flood has also taken a toll on the area's human population, with more than a thousand families forced to flee home from a dozen villages neighboring the park in the Golaghat district alone.

The authorities in Kaziranga have put a number of measures in place for mitigating animal casualties and human-animal confrontations. Saikia said 1,200 personnel, including 100 members of the state police force, are being deployed on round-the-clock patrols in and around the park.

Apart from stepping up vigilance by forest officials in Kaziranga, police teams from Golaghat, Nagaon, Karbi Anglong, Sonitpur and Biswanath districts—the districts in which the park is spread—deployed three drones to monitor the movement of animals driven out of the park by floodwater.

  
**TIME CARD**

Date : 19/7/17

VEHICLE No. \_\_\_\_\_ LMV/BUS/TRUCK/HEAVEY VEHICLE

Check Point	Kohora Police OP	Pub-Haldibari	Kanchanjuri Gate	Amguri (Rangolu)
Distance	Starting	6 KM	22 KM	34 KM
Required Time	0	12 Min	45 Min	70 Min
Distance to cover not before		9.20 pm		10.18 pm

- Time is in nearest five minutes
- Speed limit 30 km/hr as per prohibitory order issued by SDO (C), Bokakhat under Section 144 Cr.PC, in Kaziranga National Park area.
- Violation will lead to action under Section 188 IPC

Executive Magistrate  
Bokakhat Sub-Division  
Golaghat District

Time cards like this are being used to control vehicular traffic and restrict speeding on National Highway 37, which skirts Kaziranga's southern border. Photo by Ankita Bora.

Measures have also been taken to control vehicular traffic and restrict the speed of cars and trucks plying NH 37 through the Kaziranga area, such as using time cards to track vehicle speed between checkpoints.



Animals escaping floods cross the NH 37 to take shelter in the neighboring Karbi hills. In the case of rhinos, though roadkill is rare, crossing the road increases chances of being poached.

Manoj Gogoi, the founder and president of Naturalists for Rehabilitation of Snakes and Birds, a local non-profit that has been working for conservation in Kaziranga for a decade, showed Mongabay a snapshot of a civet being hit by a speeding car. "It's not impossible that a lone rhino calf trying to cross this killer highway could as well be killed by some overspeeding vehicle," he said.

Corbett Foundation official Naveen Pandey, who has been assisting forest officials in issuing time cards on NH 37, said, "We've put the speed limit at 30 kilometers per hour inside Kaziranga. Vehicles defying speed limit rules could be fined up to 5,000 rupees (~\$78)."



In the submerged village of Sildubi bordering on Kaziranga, villagers use traditional melengs to commute. Photo by Ankita Bora.

Unfinished highlands and a controversial embankment

The 2016 flood was more severe, taking a heavier toll on Kaziranga's wildlife and prompting the authorities to start building 33 new highlands to provide rhinos and other marooned animals with high ground to escape to during floods.

The park currently has 111 such highlands, but they were built in the 1990s and many are in poor repair. "Some of the existing highlands are diminishing and need renovation, while some are intact," said Gogoi.

Like Noah's ark, these little islands of high ground are the sole hope of survival for the marooned wildlife inside the park. But, Gogoi said, the existing highlands are not enough for Kaziranga's wildlife population.

Satyendra Singh said 33 new highlands are being built, but they will have to be rebuilt after the monsoon floods. "The older islands are about 12-feet high, almost the same height as the camps on stilts for forest guards, whereas the new one will be 16 feet above Kaziranga's average altitude of 196 feet. The new highlands will cost the park an estimated 74 lakh (7.4 million) rupees a hectare," said Singh.

The construction work on the highlands started just before the onset of the rainy season. By the time the flood hit Kaziranga in the first week of this July, most of the new highlands remained incomplete and many of them have since been washed away by floodwater and torrential rains. "The timing of the construction was wrong. They should have started well before the advent of the rainy season," said a concerned Gogoi.



Young animals, such as this rhino calf pictured during calmer weather, are particularly vulnerable to floods. Photo by Sebastian Heil via [Flickr](#).

More controversial is a plan to construct an embankment-cum-road along the Brahmaputra River, which aims to prevent floodwater from inundating the park. This proposed plan has raised concerns among the conservationists, who are concerned that interfering with this natural cycle will damage the park's ecosystem.

Floods recharge groundwater systems, fill wetlands, increase the connectivity between aquatic habitats and move sediment and nutrients around the landscape.

The proposed embankment means disruption of these natural processes, said Jodumoni Goswami, a Corbett Foundation official in Kaziranga. "This will certainly impact Kaziranga's ecosystem, as it will disrupt the ecological functions associated with natural floods."