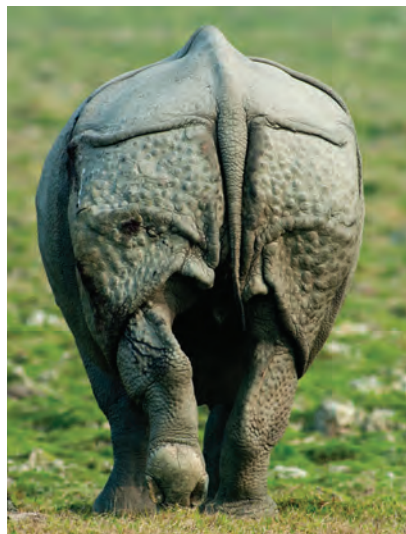


How India's Monsoon Shapes Rhino Conservation



STEVE AND ANN TOON

Above: Greater one-horned rhinos are the only rhino species known to 'swim' for their food, a necessary skill in a habitat that floods!



STEVE AND ANN TOON

Between June and September each year, heavy rains sweep across India, bringing intense flooding. The weather pattern, caused by a monsoon (a dramatic seasonal change in direction of the prevailing winds of a region that brings a marked change in rainfall), can bring up to 90% of the country's rainwater for an entire year. Naturally, this has huge impacts on people and wildlife, yet it remains vital for the natural ecosystem.

During the 2024 monsoon, 934.8 mm of rain fell across India — an 8% increase compared to the seasonal average. For many people, this had devastating consequences: 1,492 people lost their lives and lots more faced injuries and other health issues. Crops were washed away, and key infrastructure and homes were damaged, leaving many people vulnerable.

The figures from Kaziranga National Park (which is home to Asia's largest rhino population) bring another sharp reminder of the monsoon's force. The Park recorded more than 215 wildlife casualties, including the deaths of 13 Greater one-horned rhinos.

Two major rivers run through Kaziranga: the Brahmaputra River (the fourth largest river in the world) and the Barak River. Both are crucial to the alluvial floodplain ecosystem that makes the Park an excellent habitat for rhinos. Each year, when the monsoon arrives, Kaziranga's rivers overflow their banks, flooding water into the surrounding low-level plains. As the water level rises, animals are pushed out of their usual spaces, towards higher ground. Those that can't succumb to the monsoon.

Despite this tough news, the monsoon remains an important and beneficial part of India's weather pattern. Without the annual flood, Kaziranga's ecosystem wouldn't be able to sustain wildlife year-round. The surge in water helps to distribute nutrients, replenish the soil and remove invasive plant species, rejuvenating the grasslands that are essential for the survival of rhinos and other herbivores living in the Park. Like nature's very own washing machine, the monsoon ensures that the habitat remains productive overall.

Crucially, despite a relatively small number of losses during the monsoon each year, Kaziranga's rhino population continues to grow. In the 1960s, it's understood that there were just 300 – 400 Greater one-horned rhinos in the Park. Today, there are more than 2,600.

Continued growth of this key rhino population should, overall, be helped by the monsoon: a more productive, healthy ecosystem will help rhinos to breed successfully. But, as the climate crisis alters



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weather patterns and human development changes the structure of natural systems, the impact of the monsoon, and how ecosystems and the species living in them can respond, is likely to shift.

Despite the challenges it brings, one of our main focuses for rhinos must be on minimising the factors that could cause significant changes to this natural cycle. Preserving the natural dynamic of the monsoon is crucial to ensuring that Kaziranga, other habitats like it, and the diverse animal and plant life within them, can thrive.

