



ACTION ON CLIMATE TODAY

on Impact



From survival to sustainability: Assam paves a new path

UK AID is assisting the Government of Assam in rejuvenating available surface water bodies to develop fisheries, promote climate resilient agriculture and generate additional livelihoods for farming communities in this region.

"Look around: there is no water. How do we grow crops?" asks Suren Mandal, a farmer in Kohora village, Golaghat district of Assam. You would think water would be the least of his concerns, given that his farm is a stone's throw away from the Brahmaputra, Asia's largest river by volume, which flows through China, India and Bangladesh.

He is not alone. The whole district, more than 2,365 families, is facing the consequences of a changing climate. The *beels* (static water) which supplied water to farms have dried up. Silt, carried forward by flood water, has rendered large tracts of land useless for farming. The interplay of long spells of drought and sudden flash floods are squeezing their livelihoods. There is no relief in sight. What is of immediate concern is that rainfall in the Central Assam Valley zone is decreasing slowly, as found in Lumding, where rainfall is on the decline at a rate of [2.15 mm per year](#). As a result, the water crisis will be aggravated in this region in the coming years.

"The Kohora stream dried up completely in 2014. There is no depth in the stream or water holding capacity due to excavation and siltation," says Sanjay Gogoi, a Soil Conservation Ranger Officer with the Government of Assam who has observed these changes for the past 15 years.

According to Assam's State Action Plan on Climate Change, longer droughts and dry periods will lead to an increase in forest fires, adversely affect biodiversity and threaten the livelihoods of the people.



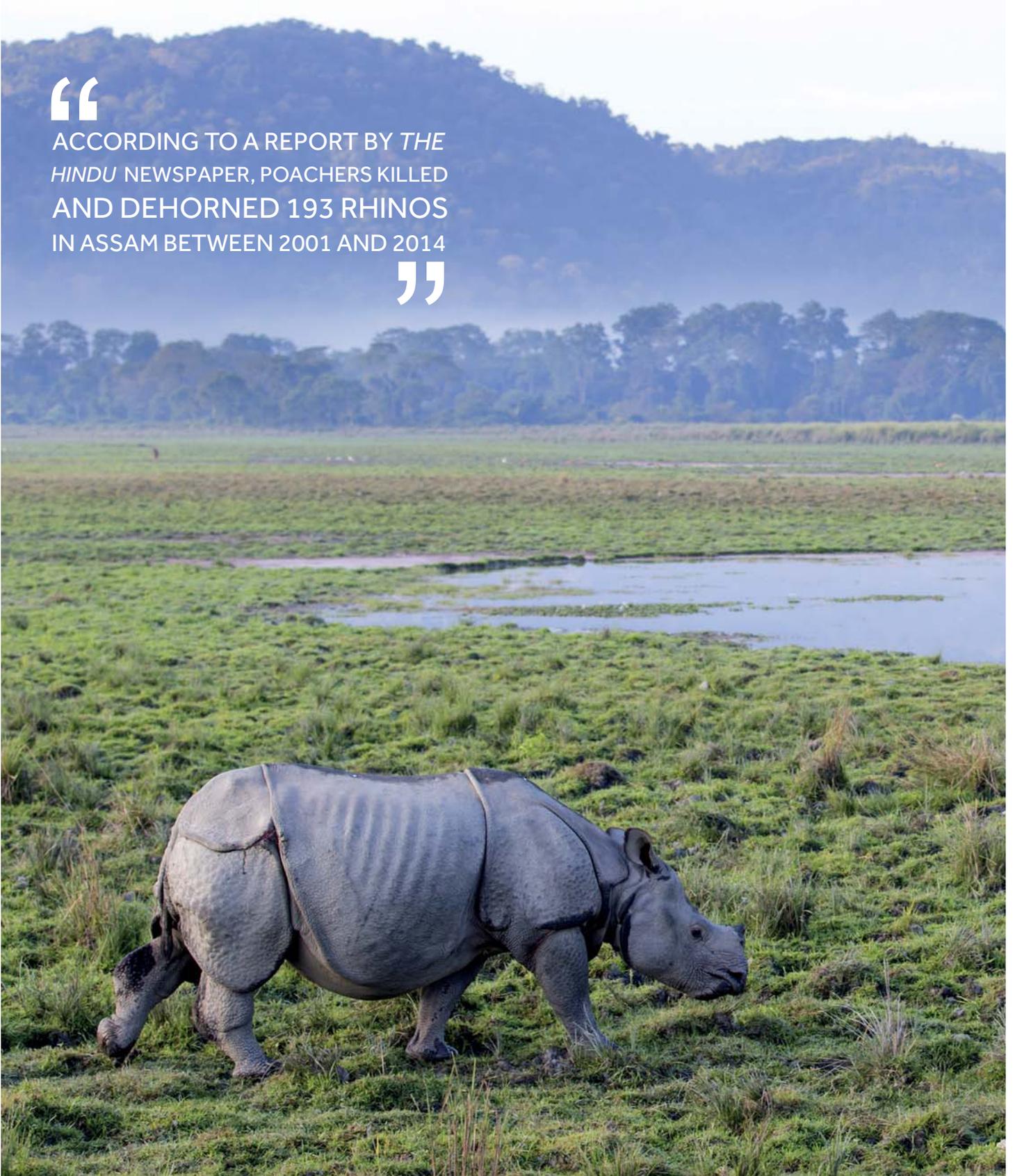
A former maize farmer, forced by the changing climate to switch to wage labour.

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The better-off farmers use borewells and tubes to extract groundwater. "Diesel is available on the black market for 60–65 rupees per litre," says one farmer who can afford this sum. Most cannot. They are forced to migrate to the cities in search of livelihood, or to start daily wage labour such as collecting bamboo, fuel wood and other resources in the forest. "When we run out of bamboo, then what?" asks a 28-year-old farmer, now a day labourer.

Danger to the ecosystem

Kaziranga National Park, one of Assam's most popular wildlife sanctuaries, borders these villages. It lies partly in three districts, namely Golaghat, Nagaon and Sonitpur, and borders Karbi Anglong district. Unable to make ends meet, villagers have started to look to the Park's rich flora and fauna to meet their needs. This is a disturbing new dimension to a serious problem.

The dependency of the locals on the forest has increased, and some even resort to poaching of wildlife. The Park is home to two-thirds of the world's Indian rhinoceros population and celebrated as a World Heritage Site. The Indian rhino's horn is worth US\$1000 and finds a lucrative market across the border in China. According to a report by [The Hindu](#) newspaper, poachers killed and dehorned 193 rhinos in Assam between 2001 and 2014.

These illegal operations are tarnishing the very brand image of Assam. The Park's identity as a tourist destination and home of rich flora and fauna is now under threat due to climate change, upstream development on the Brahmaputra, frequent floods, longer dry periods, encroachment and a whole range of other overlapping issues.

Kaziranga's survival

The High Court of Assam intervened in 2014 and asked the then-Director of Kaziranga National Park, Mahendra Kumar Yadava, to do whatever it takes to protect the rhinos. With the support of the Chief Minister, Shri Sarbanananda Sonowal; Additional Principal Chief Conservator of Forest (Biodiversity and Climate), Shri A.K. Johari; the Ministry of Environment, Forest and Climate Change; and the National Bank for Agriculture and Rural Development, Yadava set out to answer a difficult question: Can rhinos, and by extension Kaziranga, survive for 100 years? The answer wasn't so simple.



Photo: Action on Climate Today

Mahendra Kumar Yadava, former Director of Kaziranga National Park.

He realised that a piecemeal solution wouldn't work. "There was an urgent need to take care of the area inside as well as outside the park. Climate adaptation and mitigation fit perfectly into the picture," says Yadava.

During the same period, UK AID was pushing for climate-proof growth and development in Assam through its Action on Climate Today (ACT) initiative. Rizwan Uz Zaman, ACT State Team Leader, met with Yadava at a consultation. "I told Rizwan that the climate agenda cannot be fulfilled unless we focus on Kaziranga," recalled Yadava. Their ideas and vision were in sync. Zaman had found his climate champion.

They realised that Kaziranga could survive, but maybe not the traditional livelihoods. The duo combined their skills and passions to initiate a one-of-a-kind project that brought together development and conservation: "Management of Ecosystem of Kaziranga National Park by Climate Resilient Livelihood."

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Zaman used the resources at hand to put together a team of consultants for the scoping study, but it wasn't going to be enough. He needed more funds. In 2015, the Government of India established a National Adaptation Fund to meet the cost of adaptation to climate change for the state and union territories that are particularly vulnerable to the effects of climate change. Zaman sensed an opportunity. He actively pursued this channel and was able to leverage US\$3.7 million from the Fund. Meanwhile, Yadava used his experience and passion to navigate past the system's hurdles that came along the way.

"We followed an extensive round of consultation with 100+ villages through Eco-Development Committees, homestay owners, civil society organisations, technical institutions and senior Kaziranga officials. There were two full days of non-stop discussion village by village," says Yadav.

The proposed initiative aims to rejuvenate available surface water bodies to develop fisheries and promote climate resilient agriculture such as organic farming. It will augment the water capacity of the region through revival of *beels* and important streams, removal of silt and improvement to the water holding capacity of the soil to make it drought resistant.

These measures will allow farmers to grow multiple crops, generate additional livelihood and develop resilience against floods and droughts. Moreover, these activities act as a deterrent against venturing into the forests and allow tourism to flourish. Thus, they will build the resilience of the people and be in sync with the development priorities of Assam.

From survival to sustainability

"It is the first serious ecosystem conservation project proposed in the country," says Yadav. "The only way to make it successful in perpetuity is to give people ownership of the work. We wish to play a supervisory role as and when needed."

The project hit the ground in April. It will certainly provide much-needed water to the villagers. Moreover, it may pave the way to harmonise human and economic development needs and ecological balance, under the shadow of a changing climate.



A water body in Assam revived as a fishery.

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