## **The Developing World**

## A Case Study in India Highlights Conservation and Human Needs

Do we care about

tuberculosis in workers

only because it also

threatens elephants?

A ccording to the World Wide Fund for Nature, 3,706 of the planet's major vertebrate species have lost 58 percent of their populations between 1970 and 2012 — a decline that continues unabated at a rate of over 2 percent a year. All the more important then are the success stories.

One example is the UNESCO World Heritage-listed Kaziranga National Park in India's Assam state. Known as the "Serengeti of India," after the famed national park in Tanzania, Kaziranga is a refuge for some of the world's most spectacular and threatened species. Occupying the grasslands and marshlands on the south bank of the mighty Brahmaputra River, Kaziranga hosts some 2,400 Asian one-horned rhinoceroses (nearly 80 percent of the planet's surviving population) and the

highest density of tigers in a protected area in the world.

In addition, the park has over 2,000 wild elephants, 57 percent of the world's Asian wild water buf-

falo, nine primate species, abundant deer, birds, and reptiles (including two python species and the venomous King Cobra that count among the largest snakes on Earth), as well as the endangered Ganges River dolphin. Since the late 1990s, Kaziranga has fostered the doubling of the rhino and elephant populations, as well as an increase of more than 50 percent of its tigers.

The threats to Kaziranga come from the outside. Poaching of rhinos and tigers coordinated by international mafias is largely driven by erroneous beliefs in Chinese traditional medicine concerning the health benefits of the body parts of these animals. Kaziranga has a shoot-to-kill policy for poachers, and constant surveillance has kept the practice at a minimum.

Another outside threat concerns

the Brahmaputra, one of the last of the world's major rivers without large dams. Prospective construction of dams upstream by both the Indian and Chinese governments would in all likelihood radically undermine the ecology and wildlife habitat of Kaziranga.

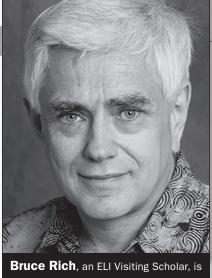
Encroachment of adjacent human populations also threatens the park, including growing numbers of illegal immigrants from neighboring Bangladesh. Last year two people were shot to death and five others injured in a protest over the forced eviction of 350 families squatting on land in or near Kaziranga. The future impacts of sealevel rise in Bangladesh risk turning the current illegal migration into Assam into a human flood of millions that will be very hard to contain.

There are 23 villages and four tea plantations that border the park, with

over 70,000 people living nearby, as well as some 20 other tea plantations in the Brahmaputra's watershed. UNESCO reports identify the plantations as threats

to the park through pesticide runoff and the potential for the spread of invasive species.

A longer-term threat is posed by the dire situation of Assam's more than one million tea plantation laborers, who with their dependents constitute an impoverished population of at least six or seven million. Independent research conducted by the Columbia University Law School Human Rights Institute and the World Bank in the tea plantations has found chronic, widespread malnutrition, with 60 percent of preschool children underweight, 12 percent of workers infected with tuberculosis, and 96 percent of girls anemic. The tubercular population may be a significant source of the human tuberculosis bacillus that increasingly infects the elephants in Kaziranga.



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Assam tea production inherited a neo-feudal plantation system established by the British in the 19th century whereby the tea companies were to provide housing, medical care, and education for their workers. Indian laws setting standards in these areas for tea plantations have never been adhered to.

The tea companies cannot compete internationally with this structure and are losing more money every year, raising the prospect of eventual bankruptcy and setting loose more than six million people with no alternative sources of sustenance. The solution lies in a restructuring of the Assam tea sector, whereby the governments of Assam and India would take more responsibility for education, health, and housing of the workers, assisted by international aid for the transition.

Conservation success stories like Kaziranga have little long-term chance to succeed as enclaves in an increasingly unstable economic and social context. The questions are profoundly ethical: are we concerned about tuberculosis in poor tea workers in Assam only because it also threatens elephants? Do we want to alleviate poverty surrounding protected areas only because it threatens endangered species? Do we shoot on sight poachers, but accept corrupted legal systems that fail the poor?

On a crowded planet, environmental protection and social equity are inextricably interrelated. Attempting to achieve either alone will ultimately fail without simultaneously pursuing the other.