

# Harming Trees, Hurting Tribals

Environmentalists are worried over the impact of development projects on India's last remaining tribal and forest frontier. Saugata Bagchi of IPS reports.

**T**HE final assault on India's natural tropical forests has begun deep in the heart of the country's last tribal frontier. In the dense jungle tracts around this remote central Indian village, the tribals' habitat is threatened by indiscriminate axing of the 'sal' tree, which villagers here worship.

longer lash his fields as they used to after a harsh summer. Standing in a dry, fallow field which could not be planted, Singh says, "we used to rely on nature to crop these lands but nature does not help us any more".

Almost half of the country's 60 million tribals live in this backward zone tenuously linked by only one national highway which brings visitors to Pharsgaon, 120 kms from the administrative centre of Bastar district at Jagdalpur.

Says Niranjan Mahavar, a Bastar-based tribal expert: "The tribals' existence is woven around the sal. You cannot harm one without hurting the other."

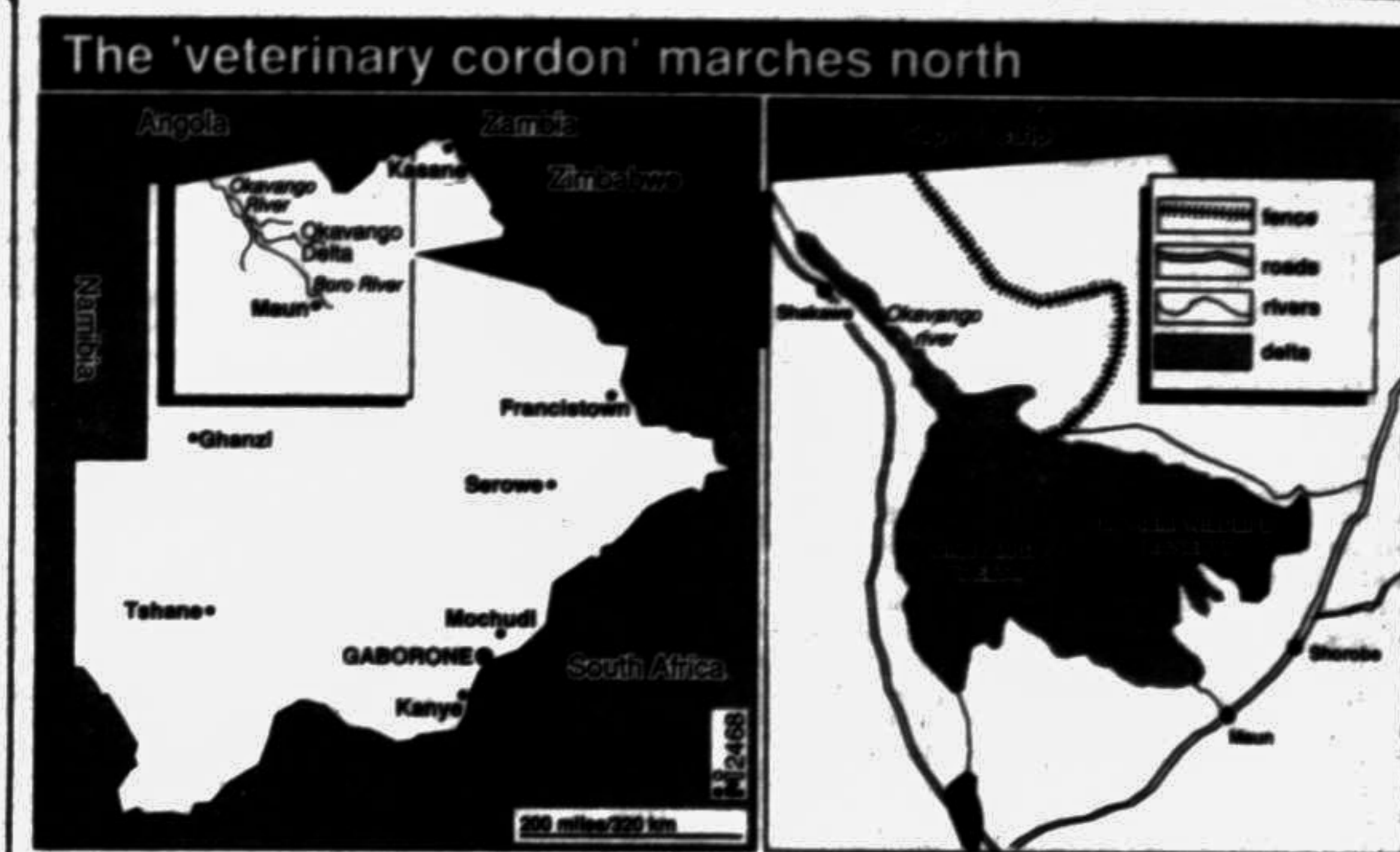
Half the district is covered by forests and dotted with wildlife sanctuaries forming catchments for tributaries of the central Indian Indravati river. It also has the country's largest and finest mineral reserves of iron ore, tin and dolomite.

Bastar has been the victim of a peculiar brand of development which has seldom benefited the tribals," says Bastar commissioner Sudip Banerjee.

Faced with the monopoly which the government has over the forests, the tribals have also begun collaborating in the destruction of their own

environment and growing population has resulted in further pressures on the now scarce bounty.

Says Ramial Korram, a tribal chiefdom: "The Adivasi (aboriginal) has to quietly suffer this loss because the forests don't belong to us anymore."



# Botswana Set to Extend its 'Fences of Death'

One of Africa's greatest environmental disasters is unfolding in Botswana. A boom in cattle ranching has led to a huge network of fences being built across the land to prevent the possible spread of animal disease. The result has been desertification and the death of tens of thousands of plains animals as they migrate in search of water. The great herds of Botswana have been decimated. Gemini News Service reports that a new phase of the fencing programme is about to begin, this time threatening the world-famous Okavango delta as well. by Damien Lewis

**B**OTSWANA is planning to expand its controversial veterinary cordon fences (VCFs) programme into the wildlife-rich area of the North-west — home to the largest remaining herds of endangered roan and sable antelope.

The fences are often referred to as "the fences of death". In arid regions they keep wildlife from reaching water, vital to their survival.

Among the likely effects of this policy are overgrazing, competition for food with remaining wildlife and erosion of the area leading to severe consequences for the Okavango delta itself.

## A BLEAK FUTURE FOR AFRICA'S MOST EFFICIENT KILLER

Recent surveys of African wild dog populations suggest that the animal has joined the burgeoning list of unique African creatures that are now endangered. And again, it is expansion of human settlements and persecution that are the main culprits. Taken together with the toll from diseases, the dogs' outlook is bleak indeed. Gemini News Service reports on one of Africa's most efficient hunters, and its prospects of survival. by Keith Somerville

### A Wild Dog's Life

<b>Weight</b>
55-70 lbs or 25-31 kg
<b>Height At Shoulder</b>
30 inches or 75 metres
<b>Coat</b>
Coarse and short with patches of white, black, yellow and brown.
<b>Habitat</b>
Open or wooded savannas up to high mountains (summit of Kilimanjaro and Mt Kenya)
<b>Food</b>
Impala, gazelle and reedbuck. a pack can consume a live Impala in ten minutes.
<b>Lifestyle</b>
Live in packs of 6-20; rarely seen alone or in pairs; wander continuously from place to place.



The very success of the dogs as hunters, which involves the bloody and violent pulling down and killing of antelopes and gazelles — has helped make the dogs hated and feared. Until the mid-1970s, game wardens in national parks around Africa often killed packs of dogs, shooting them on sight, on the grounds that their hunting success and the way they rip their prey apart, often eating it before it is dead, is horrifying and a threat to the wildebeest herds.

## Natural Disasters of 1990

**I**N 1990, as in previous years, natural disasters rec-orded world-wide added up to a depressing balance. No fewer than 45,567 deaths and 79.9 thousand million DM in economic damage were added up by experts of the Munichener Rückversicherungs-Gesellschaft, the Munich-based insurance company, as a result of the 420 incidents of this sort recorded in 1990.

Among them were 50 earthquakes with 38, 161 deaths and 16.8 thousand million DM in economic damage, 144 catastrophic storms with 3,924 dead and 43.9 thousand million DM in costs as well as 123 floods with 2,535 dead, and seven thousand million DM damage. In addition there were 103 "other" natural catastrophes: they cost 947 human lives and 12.2 thousand million DM. 92 of these 420 catastrophes happened in Europe and claimed 347 dead and 41.5 thousand million DM of which 19.6 thousand million DM was "insured loss".

## Genes Monitor Environment

**T**HE environment may soon acquire new sentinels to keep track of pollutants and pathogens — genetic techniques such as gene probes and polymerase chain reaction, a simple and rapid method of making hundreds of copies of DNA.

ella, Shigella, Staphylococcus, hepatitis A, Human Immunodeficiency Virus (HIV), polio and rota viruses, according to a report by Betty Olson, an environmental ecologist from the University of California, in the journal "Environmental Science and Technology."

A new generation of investigation is beginning with the development of rapid and direct techniques to extract bacterial DNA, RNA and even messenger RNA from a variety of environmental substrates, using PCR.

Currently, rota, hepatitis and enteroviruses can be detected in waste waters and fresh marine waters, using reverse transcriptase. PCR can also detect the presence of coliforms in water through amplification of the target DNA sequence followed by gene probe analysis.

Another encouraging trend is the development of a pan-specific probe for enteroviruses, which allows the detection of a family of viruses important in water-borne diseases.

## Fund Proposed for 'The World's Highest Garbage Dump'

**W**orried by the Himalayan kingdom's reputation as the world's highest garbage dump, the Nepal Mountaineering Association (NMA) wants international support for a Himalayan Environment Fund.

The cash-strapped kingdom earned US \$64 million from tourism in 1987-88, up from US \$78,000 in 1961-62. Tourism is now the main source of foreign exchange, exceeding the traditional source — remittances from the Gurkhas serving in the Indian and British armies.

Although tourists consume only a fraction of the firewood used in Nepal, there are also moves to use alternative energy sources on expeditions. In Ohandring, near Mount Annapurna, the use of back boilers for simultaneous cooking and water heating in lodges is saving an estimated 2,000 kilos (about 4,400 pounds) of firewood each week. Solar and wind power are being tried and small hydro-power plants are becoming increasingly popular.