



## Three million affected in Bihar due to Kosi floods

Nearly 1,600 villages spread over 16 districts in Bihar are flooded, crops destroyed and houses flattened, by one of the worst flood tragedies in recent years

Nearly 467,000 marooned people were evacuated and over 150,000 people were sheltered in 172 relief camps by Sunday, August 31, 2008, as surging waters of the Kosi river continued to inundate more areas in Bihar. The floods have claimed 35 lives, including 20 people who died Friday when the boat they were travelling in capsized in Madhepura.

Indian Prime Minister Manmohan Singh has called the situation in the northern state a "calamity of national proportion". The prime minister, who flew over the flood-affected area by helicopter to get a first-hand view of the devastation last week, has announced an aid package worth \$230m.

The BBC reported at least 75 people dead so far in the flooding and that among those affected, about 500,000 remained stranded in their villages as military rescue teams tried to reach them.

"Relief and rescue operations were intensified in the flood-hit state on Monday, with all three wings of the defence forces involved in evacuation of marooned people," said Prayaya Amrit, additional secretary of the state disaster management department.

Twenty-two columns of the defence forces, including 19 columns of the army and three columns of the navy have been involved in evacuation and relief operations, while six air force helicopters have been engaged in air-dropping of food packets.

Officials said over 3 million people in nearly 1,600 villages spread over 16 districts have been affected by the floods. The water level in the flooded areas rose by two to three feet in several places as the river inundated new areas of Saharsa, Supaul, Araria, Madhepura and Purnea districts.

The flooding, the worst in the past 50 years, was caused after the Kosi river broke a barrage in neighbouring Nepal where it originates, and changed course to unleash huge waves of water that smashed mud embankments downstream in Bihar state.

The Kosi is known as Bihar's "river of sorrow" for its regular floods and ability to change course. But this time, even for North Bihar which faces an annual cycle of destruction, displacement and loss of human lives, the river's flooding is truly unprecedented.

The Kosi river changed its course after almost two centuries and unlike the annual floods, there was little hope that the waters of the Kosi would recede soon this time around. But the Press Trust of India on September 1 reported easing of the river flow from Nepal and said the situation was expected to improve in next few days.

For the moment though the flood waters are still engulfing new areas and the relief camps are getting overcrowded and unsanitary. Reporting from one shelter area, CNN said food is becoming scarce for the hundreds of flood victims at the shelter. "We ran for our lives and now we are dying here for food," said a woman who arrived at the camp with 10 small children.

Many of the flood victims complained that they had received no assistance. Officials said bad weather was hampering rescue and relief operations. The rescue worker's task was proving tough as floods have washed away roads and railway tracks, and water and electricity supplies have been affected in many areas.

Aid agencies say many of the victims are being moved to temporary shelters which lack basic amenities and are at risk from disease. A report released by Unicef says there are fears of infectious diseases as hundreds of thousands of homeless crowd into relief camps. The United Nations too has warned of the spread of water-borne disease as stranded villagers are reportedly complaining of an unbearable stench from rotting carcasses.

The Kosi is a tributary of the Ganges and travels through the upper mountainous regions in Nepal before meeting the plains of Bihar and merging with the Ganges several hundred km downstream. It carries large quantities of silt and other matter. This is deposited in the plains of Bihar. The large deposits cause the river to meander along unpredictable paths.

In a newspaper article, N K Singh, a Rajya Sabha MP and a former civil servant, writes that the first attempt to tame the Kosi began in 1956, after the devastating floods of 1954. In the techno economic survey prepared at that time the solution was the construction of a 239-metre dam at Barakshetra, about 50 km within Nepal, to be backed by a barrage downstream. For several reasons including cost, this option was shelved. It was considered prudent to settle on a barrage.

The first credible attempt to tame the river began in 1956 with an eastern and western

embankment of 105 and 106 km respectively, of which about 32 km of the eastern embankment is located in Nepal. The embankments were completed in 1959. The barrage to regulate water flow was completed in 1964.

The Indo-Nepalese agreement signed between the two countries which facilitated this project brought benefits to both India and Nepal. But it was all along known that the interim solution which was to last at best 25 years needed to be replaced by more permanent arrangements.

"The barrage has lasted three times more than its life. Years rolled by and suddenly we have been overtaken by the current events," Singh points out while stating that the two countries cannot afford to ignore the misery and suffering of millions living in the region, perhaps one of the most demographically dense regions in the world.

Source: ***The Economic Times***, September 1, 2008 and August 29, 2008

Reuters, September 1, 2008 and August 28, 2008

PTI, September 1, 2008

Business Standard, August 28, 2008

***Hindustan Times***, August 26, 2008