### NEPAL EARTHQUAKE

# Rescue effort intensifies

Relief efforts in Nepal are intensifying after more than 2,400 people were killed in the worst earthquake there in more than 80 years. Rescue missions and aid material have started arriving in

the country. The Kathmandu-based National Emergency Operation

Centre put the toll in Nepal at 2,430 while around 6,000 more people had been injured. Officials in India said the toll there now stood at 67,

while Chinese state media said 18 people had been killed in the Tibet region. 18 people have been killed on Mt Everest by avalanches -

the mountain's worst-ever disaster.

The death toll from the original earthquake on Saturday could rise, as the situation is unclear in remote areas which

remain cut off or hard to access. Many mountain roads are cracked or blocked by land-

Scores of bodies have been ferried to hospitals in Kathmandu,

many of which are struggling to cope with the number of injured. Tents have been set up in a parade ground in the city centre to house thousands of people displaced by the earthquake.

In some places, rescuers used their bare hands in places to dig for survivors still buried underneath piles of rubble



and debris overnight on Saturday.

The 7.8-magnitude quake struck an area of central Nepal between Kathmandu and the city of Pokhara on Saturday morning. It is the worst earthquake in Nepal since 1934, when some 8,500 people were killed.

Scores of people slept outside on Saturday night - braving wet and cold weather - either because their homes were destroyed or because they feared numerous aftershocks.

World leaders and global charities have offered emergency aid to Nepal, as the government grapples with the scale of the disaster.

India is at the forefront of the relief effort, offering help including helicopters which have been deployed to remote areas. The United States, Britain, China, Pakistan and European Union countries are among those who have pledged aid.

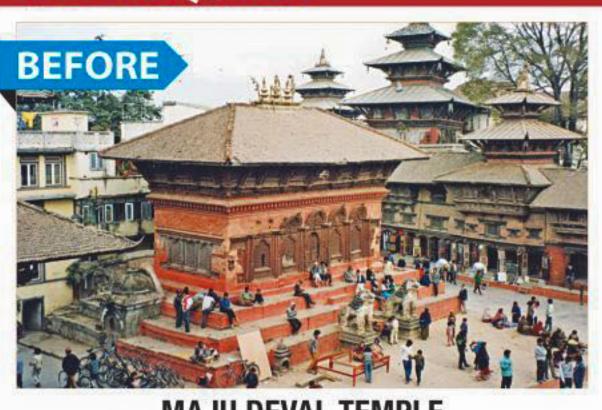
A number of international charities including Red Cross, Oxfam, Doctors Without Borders and Christian Aid are also sending teams to quake-hit areas.

The problems have been compounded by erratic internet and mobile phone communications.

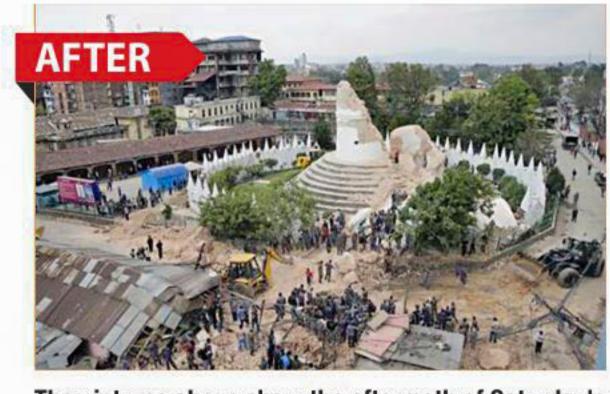
#### AFTERMATH OF NEPAL QUAKE

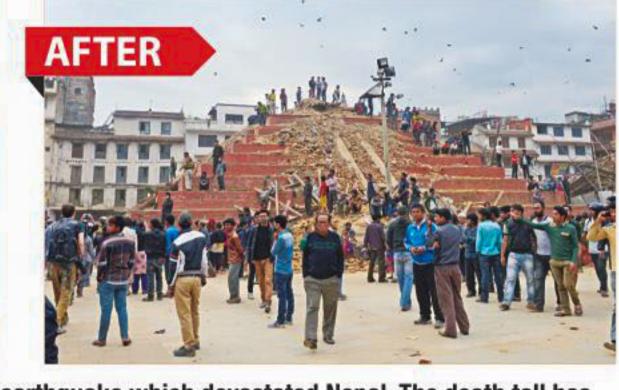


**DHARAHARA TOWER** 



MAJU DEVAL TEMPLE





The pictures above show the aftermath of Saturday's earthquake which devastated Nepal. The death toll has surpassed 2,500 people. Row one shows (left to right) the Darahara Tower, a temple in Durbar square and the Everest Base Camp before the 7.8 quake on the Richter Scale and the bottom row shows pictures of the same sites after the natural disaster. PHOTO: AGENCIES

### Get ready for a bigger one one of those earthquakes that is probably

**EXPERTS** 

strongest to hit the central Himalayan region in the last 80 years, but scientists say this was not the big one that they had been fearing would strike the area. At 7.8 on the Richter scale, releasing energy "equivalent to

The devastating earthquake that originated

in Nepal on Saturday may have been the

about 100mn tonnes of TNT", Saturday's earthquake was second only to the 8.3-magnitude earthquake that had struck the Bihar-Nepal region on January 15, 1934. The Himalayan region is the meeting point of the Indian and

the Eurasian tectonic plates, and their interaction leads to frequent earthquakes. The Indian plate is known to be pushing north and

northwestwards, getting below the Eurasian plate, which is the reason for most earthquakes in the area. "We know there is a huge amount of

accumulated strain in this area. It is due for a major earthquake, perhaps a series of earthquakes, bigger than 8 on the Richter scale. That is the kind of energy that is estimated to be accumulated there. This was certainly not

imminent. In terms of energy release, I would say this would not have released even four or five per cent of the energy that is estimated to be stored there," said Harsh K Gupta, former director of the Hyderabad-based National Geophysical Research Institute

and a former member of the National Disaster Management Authority. "This earthquake would only

be classified as medium in terms of energy released. That area, the 2500-km stretch from the Hindukush region to the end of Arunachal Pradesh, is capable of generating much bigger earthquakes, even nine on Richter scale," said Prof Sankar Kumar

ally lucky that only a 7.9-magnitude earth-

### are likely to continue

Experts urge people not to panic TNN, New Delhi

A day after facing devastating earthquake, Nepal and northern Indian states yesterday felt an intense aftershock of 6.7 magnitude with its epicentre 75 km east of Kathmandu which may well be taken as yet another tremor of moderate intensity. It was the most severe of all 35 aftershocks reported in the region in the past over 24 hours.

Harsh Gupta, president of the Geological Society of India, said, "It was an aftershock. India and Nepal may face many such aftershocks". He cited an example of an earthquake of 8.7 magnitude that had occurred in 1950 along India-China border whose aftershocks were felt till 1954.

## Nepal heritage sites flattened

**BBC ONLINE** 

The tremors on Saturday's devastating earthquake in Nepal lasted barely a minute by some accounts, yet this was enough to bring down centuries of Nepalese history. At least four out of seven Unesco World Heritage

sites in the Kathmandu valley - three of them ancient city squares - were severely damaged. Nepali Times editor Kunda Dixit told the BBC that

the destruction was "culturally speaking an incalculable loss", although he said monuments could be rebuilt. In Bhaktapur, until now Nepal's best preserved old

city, reports say half of all homes have been destroyed and 80% of temples damaged. Among other buildings to collapse was the

Dharahara tower, which once dominated the skyline of the capital Kathmandu but has now been reduced to a stump. Built by Nepal's first prime minister in 1832, the

site, also known as the Bhimsen Tower, was popular among tourists who would climb the more than 200 steps to the viewing deck at the top. Pictures which appeared soon after the earthquake

showed that Kathmandu's Durbar, or noble court, square in the capital's Old City, one of the Unesco sites, had been badly damaged. A mesh of palaces, courtyards and temples, Unesco calls it "the social, religious and urban focal point" of

Kathmandu. But later it emerged that two other Durbar squares, in Bhaktapur and Patan, had also fallen victim to the tremors. The main temple in Bhaktapur's square lost its

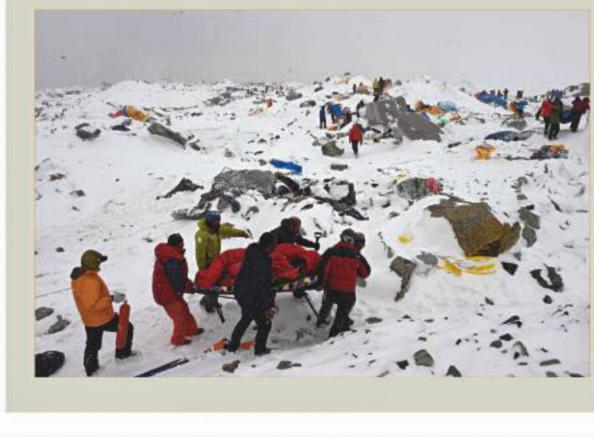
roof, while the 16th Century Vatsala Durga temple, famous for its sandstone walls and gold-topped pagodas, was demolished by the quake. Several buildings in Patan's 3rd Century square

were destroyed. The Buddhist temple complex at Swayambhunath, founded in the 5th Century, has also been damaged.

But the iconic central stupa, with its gazing eyes of the Buddha, still stands.

There have been reports that the Boudhanath Stupa and Pashupatinath Hindu temple site were damaged too.

It is unclear whether all of these ancient monuments can, or will, be rebuilt.





A man cries as he walks on the street while passing through a damaged statue of Lord Buddha a day after an earthquake in Bhaktapur, Nepal April, yesterday. Rescuers dug with their bare hands and bodies piled up in Nepal yesterday after the earthquake devastated the heavily crowded Kathmandu valley, killing more than 2,500 people.

PHOTO: REUTERS

## 'No regrets' on Crimea: Putin

AFP, Moscow

Russian President Vladimir Putin yesterday said in an interview broadcast that he had no regrets over Moscow's 2014 annexation of Crimea and that it was righting a historical injustice. "I think we did the right thing and I don't regret a thing,"

Putin said of his decision to take back the Black Sea peninsula from Ukraine, interviewed in a state television documentary. "When we defend our (interests), we go to the end,

Putin said. "If people want to return to Russia and don't want to be under the authority of neo-nazis, extreme nationalists and

followers of (Stepan) Bandera, then we don't have the right to abandon them," Putin said. Bandera was the hugely controversial anti-Soviet wartime leader of the Ukrainian Insurgent Army (UPA), which both

fought against and collaborated with occupying Nazi forces. Explaining the motivation behind Crimea's takeover, Putin said it was righting a historic wrong after Soviet leader Nikita Khrushchev transferred the peninsula from Russia to Ukraine in

1954, then only a symbolic move since both were in the USSR.

"It's not because we want to bite something off, tear it off. And not even because Crimea has a strategic significance in the region around the Black Sea," Putin said.

"It's because it's an element of historical justice."

He insisted that Russia is not breaching international law in its actions in Ukraine, despite Western sanctions, as Moscow denies international accusations that it is backing pro-Russian separatists with arms and troops in east Ukraine.

#### China to provide 110 fighter jets to Pakistan PTI, Islamabad

Pakistan will acquire 110 latest JF-17 Thunder fighter jets from China as the two countries forge closer economic and defence cooperation following President Xi Jinping's visit to Islamabad earlier this week, a media report said on Saturday. Radio Pakistan reported that China will deliver the first batch of 50 jets over a period of three years. It is not clear when the delivery of the remaining 60 jets will be completed.

#### US 'softens stance on hostage ransoms'

AFP, Washington

US officials are expected to stop prosecuting families of American hostages who communicate with kidnappers abroad or raise funds and pay ransoms, ABC news reported yesterday. A National Counterterrorism Center advisory group, ordered by the White House, is expected to recommend what would mark a radical shift in US hostage policy, according to the report.

### Storm kills 26 in **Pakistan**

AFP, Peshawar

At least 26 people were killed and more than 180 injured yesterday after a storm struck Pakistan's northwest city of Peshawar causing dozens of buildings to collapse, officials said. Fallen trees, rubble from buildings and mobile phone towers had blocked several main roads, an AFP reporter at the scene said, while flood water from torrential rainfall had reached three feet (one metre) deep in some parts of the city of more than three million people.

## New UN Yemen envoy looks to revive talks

AFP, Sanaa

A new UN envoy was looking to kickstart peace talks in Yemen yesterday as battles raged between Iran-backed rebels and progovernment forces a month after the launch of Saudi-led air strikes.

The Shia Huthi rebels, who have overrun large parts of the country and forced President Abedrabbo Mansour Hadi to flee abroad, have demanded an end to the air strikes as a condition for UN-sponsored

But the raids continued yesterday, hitting the rebel-held presidential palace in Sanaa and anti-government positions in the main southern city of Aden, military sources and witnesses said.

Fighting also intensified in Marib province, east of the capital, where Sunni tribes and pro-Hadi fighters clashed with Huthis and allied forces.

The United Nations on Saturday confirmed Mauritanian diplomat Ismail Ould Cheikh Ahmed as the new special envoy to Yemen, replacing Moroccan Jamal Benomar, who resigned last week following what diplomats described as

sharp criticism of his performance by Gulf countries.

Ould Cheikh Ahmed "will work closely with the members of the United Nations Security Council, the Gulf Cooperation Council, governments in the region and other partners, as well as the United Nations country team for Yemen," a UN statement

Former strongman Ali Abdullah Saleh, who still holds sway over army units allied with the Shiite rebels, late Friday urged the Huthis to heed UN demands to withdraw from territory they have seized.

US Secretary of State John Kerry also called on anti-government forces to enter into political dialogue to end a conflict that the United Nations says has killed more than 1,000 people since late March.

The fighting has raised fears that Yemen could become a front in a proxy war between Sunni-ruled Gulf monarchies and

Shiite Iran. Tehran rejects accusations that it armed the rebels and has presented a peace plan to the UN calling for a ceasefire and the forma-

tion of a unity government.

# Quake 'followed historic pattern

Scientists link Nepal's 2015 quake with 1934's devastating tremor

Epicentre 15 January 1934 8.0 Mw

**BBC ONLINE** 

Scientists say Nepal's devastating magnitude-7.8 earthquake on Saturday was primed over 80 years ago by its last massive earthquake in 1934, which razed around a quarter of Kathmandu to the ground and killed over 17,000 people. This latest quake follows the same pattern as a duo of big

tremors that occurred over 700 years ago, and results from a domino effect of strain transferring along the fault, geologists say. The researchers discovered the likely

existence of this doublet effect only in recent weeks. In a sadly prescient turn of events, Laurent Bollinger, from the CEA

research agency in France, and his colleagues, uncovered the historical pattern of earthquakes during fieldwork in Nepal last month, and anticipated a

major earthquake in exactly the location where Saturday's big tremor has taken place. Down in the jungle in central southern Nepal, Bollinger's

team dug trenches across the country's main earthquake fault (which runs for more than 1,000km from west to east), at the place where the fault meets the surface, and used fragments of charcoal buried within the fault to carbon-date when the fault had last moved.

Ancient texts mention a number of major earthquakes, but locating them on the ground is notoriously difficult.

**SAY THE 7.8 QUAKE WAS BIG BUT A** 9 QUAKE

IS DUE Nath of IIT Kharagpur. "If you look at it differently, we are actu-

quake has come. I would be very happy to have a few 7.9-magnitude earthquakes than a 9-magnitude earthquake which would be absolute disaster. The trouble is that in terms of energy release, which is what causes the damage, it would take 40 to 50 earthquakes of magnitude 7.9 to avoid an earthquake of magnitude 9," he said.

> Previously, the team had worked on the neighbouring 25 April 2015 06:11 UTC

had not moved for a long time.

earthquakes of 1505 and 1833, and that the last time it moved was most likely 1344," says Bollinger, who presented his findings to the Nepal Geological Society two weeks ago.

Bollinger's group was able to show that this segment of fault

"We showed that this fault was not responsible for the great

segment of fault, which lies to the east of Kathmandu, and had shown that this segment experienced major quakes in 1255, and then more recently in 1934.

> When Bollinger and his colleagues saw this historic pattern of events, they became greatly concerned. "We could see that both Kathmandu

and Pokhara would now be particularly exposed to earthquakes rupturing the main fault, where it likely last did in 1344, between the two cities," explains Paul Tapponnier, from the Earth Observatory of Singapore,

who was working with Bollinger. When a large earthquake occurs, it is common for the movement to transfer strain further along the earthquake

fault, and this seems to be what happened in 1255. Over the following 89 years, strain accumulated in the neighbouring westerly segment of fault, finally rupturing in 1344.

Now, history has repeated itself, with the 1934 fault transferring strain westwards along the fault, which has finally been released today, 81 years later.