# Overview of Historical Earthquakes in Nepal



Nepal, situated in the central part of the Himalaya Range, is known for its high seismic activity, being located in one of the world's most active seismic zones. The primary cause of frequent earthquakes in Nepal is the subduction of the Indian plate beneath the Eurasian plate, leading to converging forces along the plate boundary and resulting in earthquakes of varying magnitudes. This article offers a concise summary of significant earthquakes that have occurred in Nepal throughout its history.

#### 1255 A.D. / 1310 B.S. (Magnitude 7.8)

The earliest recorded earthquake in Nepal caused extensive destruction. Numerous temples and houses collapsed, leading to the loss of nearly one-third of the population in the Kathmandu Valley, including King Abhaya Malla. The earthquake, with a magnitude of approximately 7.8 on the Richter scale, was accompanied by frequent tremors lasting for 15 days.

#### 1260 A.D. / 1316 B.S. (Magnitude 7.1)

During the reign of King Jayadev Malla, this earthquake resulted in significant casualties, widespread epidemics, and famines. Residential buildings, as well as monumental and architectural heritage, suffered damage.

## 1408 A.D. / 1463 B.S. (Magnitude 8.2)

Occurring during the rule of King Shyam Singh, this earthquake led to the destruction of the Machhendranath temple and many other structures, causing a substantial loss of lives and property.

# 1681 A.D. / 1737 B.S. (Magnitude 8.0)

Under the rule of King Sri Niwas Malla, this earthquake caused the destruction of numerous buildings.

#### 1810 A.D. / 1866 B.S.

During the reign of King Grivan Yudhha Bikram Shah, this earthquake resulted in the destruction of houses and claimed some lives. It was marked by approximately 21 tremors on that day.

#### 1823 A.D. / 1880 B.S.

Although no human or livestock casualties were reported, the Kathmandu Valley experienced 17 moderate shocks.

# 1833 A.D. / 1890 B.S. (Magnitude 8.0)

On August 28, 1833, Kathmandu Valley faced a strong earthquake, lasting 40 seconds and followed by tremors throughout the night. Numerous houses, mansions, and temples were destroyed, including the recently built Jagannath temple and the severely damaged Dharahara tower.

# 1934 A.D. / 1990 B.S. (Magnitude 8.1)

The Great Nepal-Bihar earthquake on January 15, 1934, had a profound impact, causing significant loss of life and property. The earthquake resulted in thousands of deaths, injuries, and widespread destruction of buildings, landmarks, and infrastructure.

# 1980 A.D. / 2037 B.S. (Magnitude 6.5)

Affecting the far western region of Nepal, particularly Baitadhi, Bajhang, and Darchula, this earthquake claimed lives and caused severe damage to buildings.

## 1988 A.D. / 2045 B.S. (Magnitude 6.9)

Also known as the Udaipur Earthquake, it struck the eastern region, resulting in fatalities, injuries, and extensive damage to private, public, and government structures.

## 2011 A.D. / 2068 B.S. (Magnitude 6.9)

With the epicenter near the Nepal-India border, this earthquake led to deaths, injuries, and displacement of people, causing significant damage to buildings.

# 2015 A.D. / 2072 B.S. (Magnitude 7.8)

The Gorkha earthquake on April 25, 2015, followed by aftershocks, caused widespread devastation, resulting in a substantial loss of life, injuries, and damage to buildings and infrastructure across central Nepal.

These earthquakes, spanning centuries, highlight Nepal's vulnerability to seismic activity and the enduring impact on its people and structures.

## **References:**

- Gorkha Earthquake2015: Cause and Effect by Dr. Basanta Raj Adhikari
- https://pukarjoshi.com.np/historical-earthquakes-in-nepal/#more-127
- Lecture slides, documents and collection by Dr. Rishi Ram Parajuli, Er. Pukar Joshi, Er. Kshitiz Paudel
- Nepal ko Mahabhukampa 1990 By Brahma Shumsher Jung Bahadur Rana
- Revisiting Major Historical Earthquakes in Nepal: Overview of 1833, 1934, 1980, 1988, 2011, and 2015 Seismic Events. By Hemchandra Chaulagain, Dipendra Gautam and Hugo Rodrigues