EARTHQUAKE & SAFETY MEASURES

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Vulnerability Profile: Bihar

- Bihar is multi disaster hazardous prone state.

- Bihar is located in the high seismic zone that falls on the boundary of the tectonic plate joining the Himalayan tectonic plate near the Bihar-Nepal Border.

- Of the 38 districts of Bihar, 8 dists fall in Seismic Zone V while 24 dists fall in Seismic Zone IV and 6 dists in Seismic Zone III.
MULTI HAZARD ZONES IN BIHAR

MAP SHOWING MULTI HAZARD ZONES IN BIHAR

LEGENDS

W&C_H = Wind & cyclone high damage risk zone (47 m/s)
W&C_M(B) = Wind & cyclone moderate damage risk zone (39 m/s)
EQ_VH = Earthquake very high damage risk zone (MSK IX or more)
EQ_H = Earthquake high damage risk zone (MSK VIII)
EQ_L = Earthquake low damage risk zone (MSK VII)
EQ_VL = Earthquake very low damage risk zone (MSK V)
FLZ = Area liable to flood zone
NFZ = No flood zone or area protected

Disclaimer: This map was collated based on the data information compiled by the Ministry of Urban Development and Poverty Alleviation, UNDP has not verified the accuracy of information of the Map Source: BMTPC, India.
The Floating Earth

- The mantle is the layer of Earth just below the crust. It is made up of a liquid.
- Because the mantle is liquid, the hard surface of the Earth is actually floating.
- The crust floating on the mantle is similar to crackers floating on top of soup.
Plate Movement

- Earth’s plates can move in three directions:
  - Divergent
  - Convergent
  - Transformational

This movement forms an earthquake
पृथ्वी के प्लेट्स क्यों घुमती है?
Who feels the shaking?

• The shaking starts at the epicenter and spreads in circles outward much like the ripples of water dripping into a puddle.
Seismic Waves

- The waves of shaking are called seismic waves.
How do an Earthquake measure?

• Earthquakes are measured using a seismometer.
Basic Collapse Patterns

Contd...
Basic Collapse Patterns

Lean-to

Contd...
Basic Collapse Patterns

Pancake

EXAMPLE of a building's "pancake-collapse"
Building Collapse Patterns

V-Shape
Spot the hazards!!
CLEAR CORRIDORS, DOORWAYS AND EXIT PATHS

EXIT

EXIT
During the Earthquakes

- **If indoors**, do not run out side in panic to avoid stampede.

- **DROP** to the ground; take **COVER** by getting under a sturdy table or other piece of furniture; and **HOLD ON** until the shaking stops.

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