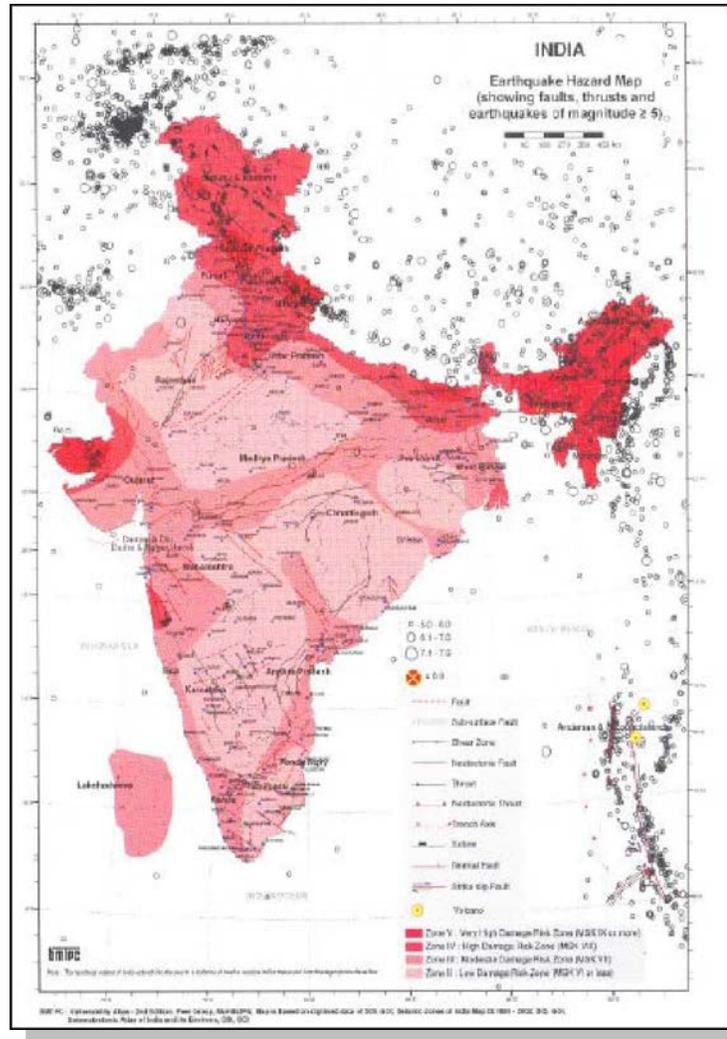


## Risk assessment Plan

No significant impact is envisaged in this case as well. There shall be no land disturbance resulting in erosion, subsidence and instability. The site falls under the zone IV as per the seismic zone map of India and indicating high damage risk zone. The project will be earthquake resistant taking into account the latest provisions of Indian Standards Codes.

According to the Indian Standard Seismic Zoning Map, the Project is located in Zone IV. The design of the structure would have adequate provision to withstand the earthquake impact.



**Earthquake Hazard Map of India**



**Uttarakhand Earthquake Hazard Zone**

The site falls under the zone IV as per the Seismic Zone Map of India. Adequate measures will be taken during designing of the project as per IS norms.

Building shall be designed as per Seismic Zone –V.

Firefighting measures shall be adopted as per the guidelines of NBC. External yard hydrants installed around all buildings and galvanized steel fire hose boxes/cabinet (weather proof). All external yard hydrants shall be at one meter height from finished ground level as per. External fire hydrants shall be located such that no portion of any building from a hydrant and the external hydrants are not vulnerable to mechanical or vehicular damage.

Fire hydrant system will be provided within the buildings, fire escape staircases and refuge areas will be provided and the building structures will be planned as per NBC. In addition, 10 kg fire extinguishers will be provided for class A, B, and C fires. CO<sub>2</sub> extinguishers will also be provided.

### **Disaster Management Plan**

#### **PRECAUTION & MITIGATORY METHODS TO PREVENT DISASTERS:**

- Project is planned to reduce the impact of disasters and to encourage recovery.
- A disaster management cell would be established which will take care of post disaster scenario.
- It would be a volunteer kind of set-up and professionals can also be hired in case of eventuality.

- Management and maintenance agency will prepare an integrated, comprehensive management plan.

### PRECAUTION & MITIGATORY METHODS TO PREVENT DISASTERS:

(Earthquake Management)

- At the time of designing and constructing the building due care would be taken to have earthquake resistant structures which will conform to IS 1983.
- New systems and devices using non-conventional civil engineering materials would be developed to reduce the earthquake forces acting on structure.

### PRECAUTION & MITIGATORY METHODS TO PREVENT DISASTERS:

(Fire Hazard)

- Fire safety would be taken into account and would follow all the safety norms and regulations as per the NBC and other related Indian Standards.
- All electrical cables would be underground and sophisticated modern electrical distribution system to reduce risk of fire.
- Special firefighting equipment's like Automatic Fire Detection and alarm system, automatic sprinkler system etc. would be installed as per the NBC standards.
- Risk assessment with on-site disaster management plan will be specified to fire, smoke and other emergency conditions.

### Disaster Management Plan

Disaster causes disruption to the human, social, economic, and ecological life of the society. It causes disruption, death, damage, disability, epidemic, diversion of resources and immense burden to the exchequer. Some of the disasters like cyclone, floods, and droughts can be fairly predicted whereas earthquakes, landslides, flash floods, often occur suddenly.



## **Residents Preparedness Plan**

- ❖ Identify possible disaster that are likely at your place and explain their effects to each of the family members.
- ❖ Learn community warning signals and the actions you should take when they are activated.
- ❖ Display a list of important telephone numbers in the Park Belles Group Housing Complex and at your work place.
- ❖ Decide on best two escape routes from the rooms and keep them unobstructed at all times.
- ❖ Identify high-risk areas (areas having LPG cylinders, refrigerators, Air conditioners, liquid fuel) in the Group Housing Complex that calls for immediate action.

## **Disaster Kit**

“Park Belles” would arrange survival kit to help Occupants during any crisis following disaster and kept at a convenient place known to all Guests. The kit must include:

1. Torch with extra Batteries/Candies/Match Boxes.
2. Pocket Radio with Extra Batteries.
3. First Aid Kit and common medicines.
4. One set of clothing for each member of family in accordance with weather with few bed sheets/blankets.
5. Drinking water (5.0 litres per person per day for three days)
6. Dry food stuff, Milk powder, and Glucose or Electoral powder.
7. Soap, Toothpaste, Toothbrush, and Towels.
8. Plastic Bags, Plates, Glass/Tumbler, Utility Knife, Paper and Pencils.

## **Earthquake Management**

Indicative Signs:

Erratic Animal Behaviour-Watch for Frightened or Confused Pet running around, or a Bird call not usually heard at night.

Ground Water Levels- Watch for sudden change in water levels in wells or artesian bores.

**General guidelines to be followed during the Earthquake are:**

- Stay Calm
- Ground and Ground + 2 Floors can remain indoors. There could be falling debris outside.

- Above Ground + 9 floors should not panic and try for staircase in organized manner
- Take shelter under an internal Doorframe, Table, Bench or Bed.
- Keep away from Mirrors, Windows, Overhead Fittings and Tall Furniture.
- Do not use lifts or Rush for doors in crowded areas. Stay clear.