MANAGING EARTHQUAKE DISASTERS THROUGH ARCHITECTURE AND PLANNING

SESSION 4

Understanding the genesis and development of various Building Codes and Guidelines.

Building codes for earthquake resistant structures in India are still on working stages. Thus, in some cases, Architects and structural designers follow international codes for earthquake resistant structures.

Aim of these codes is to ensure safety with good architectural shape and adequate stiffness, ability of deform by ductile behaviour, Integral action and necessary strength. The basic behaviour of building should be ductile yet tough.

Building code design philosophy can be explained by four ways:

1. Continued operations: Where the loss is minimum after an earthquake and operations can be continued with minor backups available like electricity.
2. Immediate Occupancy: Where the loss can be moderate and after some time of evacuation, after

earthquake, the people can occupy the building immediately after the repair is done.

3. Life safety: There can be considerable loss in non-structural elements and some damages to building but life of people can be saved.
4. Collapse Prevention: Maximum loss is seen in this case but the building can be prevented from collapsing.

In India we currently use life safety and collapse prevention types , whereas in Advanced countries Continued operations and Immediate occupancy is preferred.