# DISASTERS IN DELHI

# PLANNING FOR LOCAL LEVEL DISASTER RESILIENCE

Delhi is vulnerable to three disasters- Earthquake, Flood

It is vulnerable to earthquake hazard as it is located in 
It was found that these areas suffered from basic infrastructure Seismic Zone-IV - the High Damage Risk Zone.

An earthquake of medium intensity may lead to collapse of older structures and may cause opening of large cracks or

The selected areas are: Khajoori Khas, Rajiv Gandhi Nagar, Gandhi Nagar, Geeta Colony, Shakarpur Khas and Lalita Park.

- lack of open spaces, medical facilities and police chowkis,
- improper management of solid waste,
- encroachment on roads,

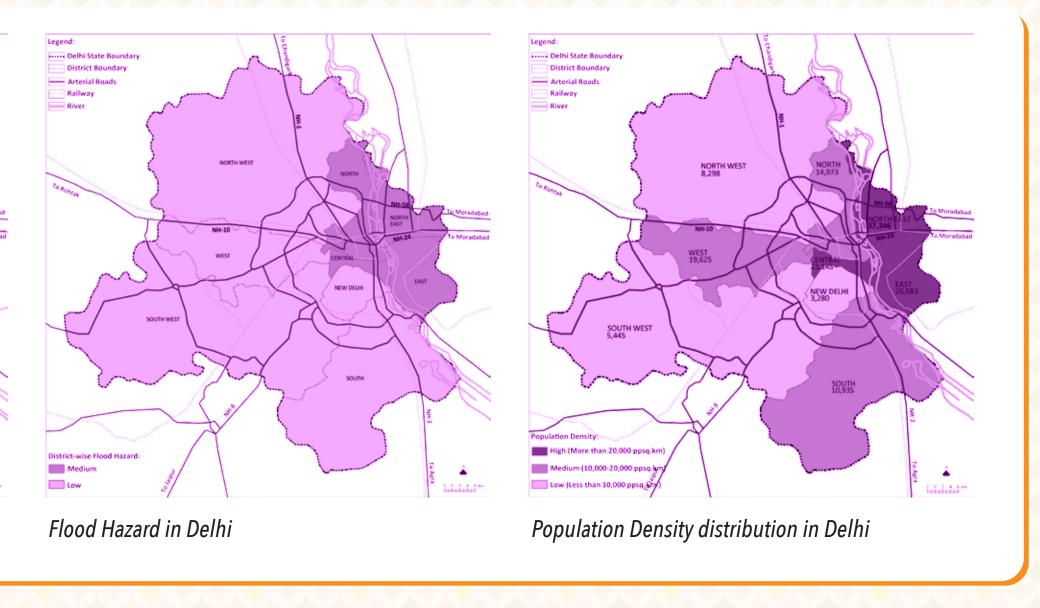








parking may lead to delay in rescue operations



It is vulnerable to **flood** hazard. The flooding of River Yamuna leads to inundation in nearby low-lying areas. Flash floods happen due to choked drains in many localities.

## It is vulnerable to **fire** hazard.

Unplanned settlements lack basic infrastructure and are characterized by narrow street widths and absence of open areas. The presence of fire prone activities or goods like industries and markets and the presence of exposed electric cables in these areas increase the local risk.

Six areas in Delhi were selected to identify the factors responsible for increasing the vulnerability of that area to these disasters.

 exposed electricity cables, dilapidated buildings and

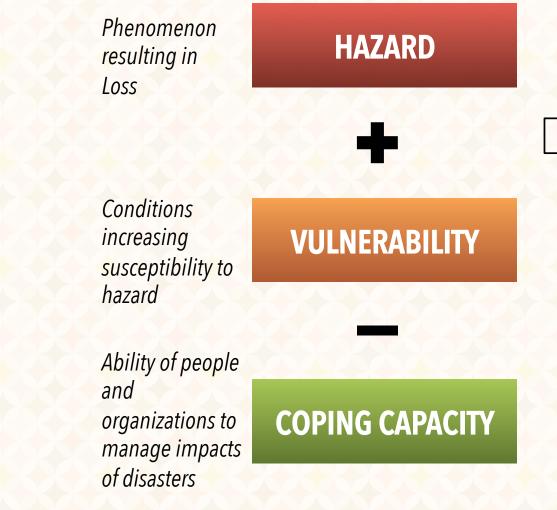
Exposed Electricity cables increase fire hazard of an area

flouting of building bye-laws

These factors led to them being vulnerable to different disasters.

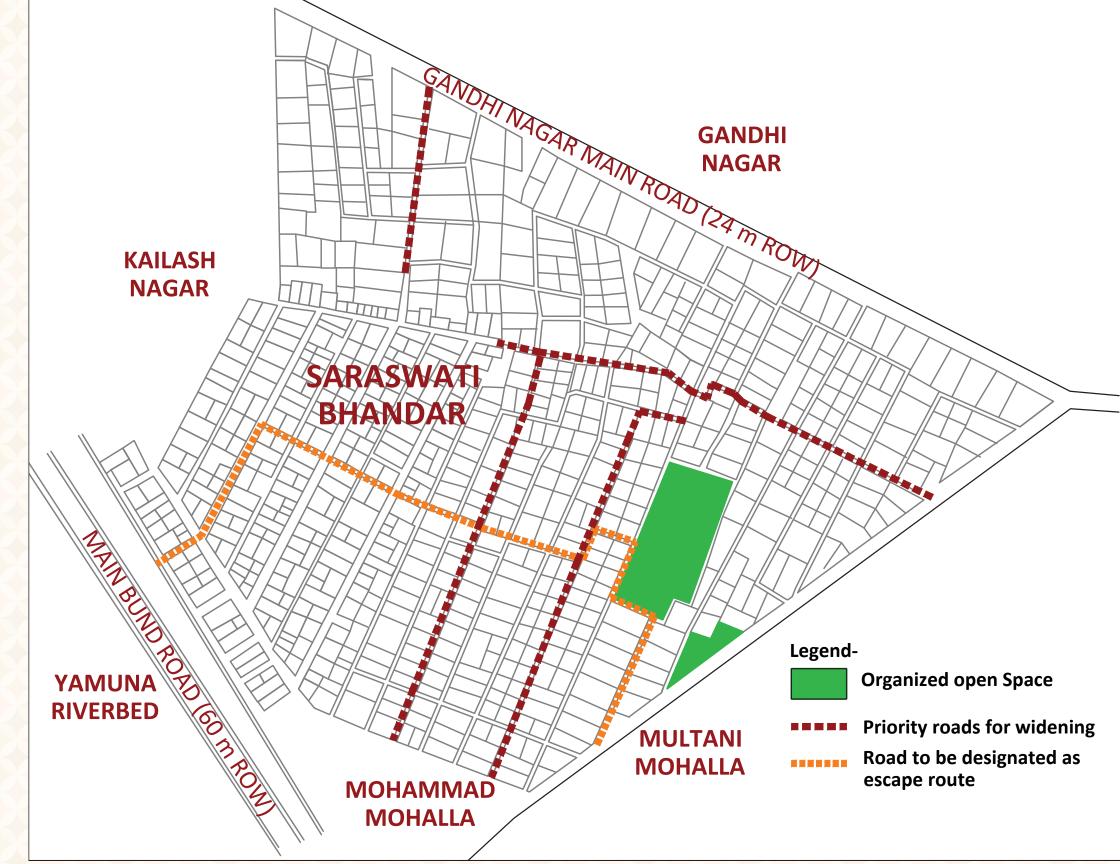
Another issue in these areas is the disconnection between the government agencies and local communities. Government's inaction on improving infrastructure despite regular incidences of fire and flood has led to decrease in the trust level of people. The awareness level of people of disaster management practices is low resulting in disaster management being very low in their priority list.

Losses due to any disaster can be reduced with decrease in vulnerability and increase in coping capacity.









Problems of the study areas were related to improper urban planning. Basic interventions can help in solving

The approach is to make the areas disaster resilient i.e. the areas are capable enough that even the occurrence of a disaster doesn't cause wide-spread loss and hamper the usual activities in the area.

Disaster resilience consists of two components:

- Reducing vulnerability: Improving conditions which may aggravate susceptibility to a natural hazard;
- Increasing Coping Capacity: Increasing the ability of people to organize and manage impacts of a disaster.

Vulnerability is proposed to be reduced through following recommendations-

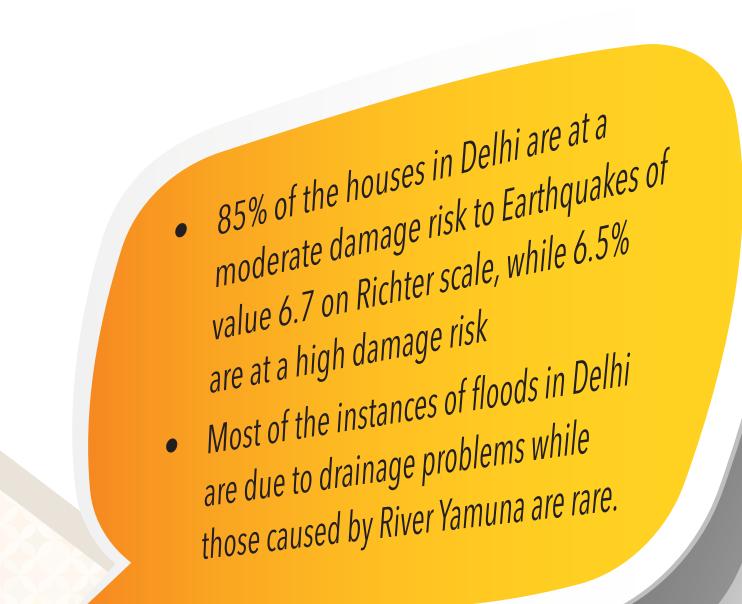
- Provision of required infrastructure- open spaces, drainage, police chowkis, medical facilities, solid waste
- Provide access to fire tenders through widening of designated roads and removal of encroachments
- Identification of clusters of dilapidated building, which can be demolished to create open spaces, medical facilities or shelter buildings.
- Shifting of overhanging exposed electricity cables

Building of coping capacity requires raising awareness, providing resources and good management, both in normal times as well as during crises or adverse conditions. Recommendations to increase the coping capacity of the community are-

- Creation of Community Based Organization (CBO) to include people in decision making
- Enforcement of building bye-laws by the Municipal Corporation with help from CBO
- Introduce a mechanism in government agencies to include a fire and structural safety certificate for permits of renovation/
- Risk assessment through a structural safety survey, creation of database of dilapidated buildings and decisions on demolition or retrofitting to be taken in consultation with residents.
- Creation of early warning system for flood and fire at the

government officials through Bhagidari scheme.

Capacity building of CBO and increased interaction with



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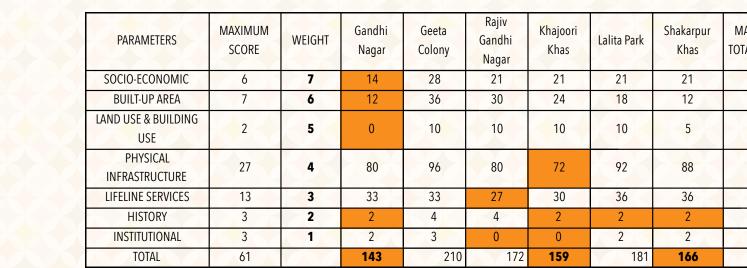
planning projects like Rajiv Awas Yojana, City Development Plans and

Risk Management' course from NIDM.

Township Development.

# LIFELINE SERVICES

Individual issues in study areas (to show variety of problems)



Overall scores for study areas (to rank areas according to their level of disaster resilience)

# Disaster management is a collective responsibility.

community to the highest possible level. This approach is known as Community-based disaster management. I this, the communities are made aware of the risks they face and work on reducing their vulnerabilities to disasters with the help of local governmental bodies. NGOs are actively involved in capacity building of the communities as well as the local bodies.

The first step is the involvement of the community in risk environment-friendly solutions should be encouraged. A community structure like a CBO can be strengthened for

The second step is building a common platform for dialogue between the CBOs, NGOs and Urban Local Body. One such platform is the Bhagidari scheme. The recommendations from workshops held under this scheme need to be incorporated in local plans or projects.





People involved in risk mapping/workshops



People involved in risk mapping/workshops

The final step should be continuous capacity building of the CBOs so they can take over the lead the disaster management approach.

Implementation requires support from many actors. Local government agencies should reduce vulnerability by improving the physical infrastructure. NGOs and Civil Society Organizations (CSO) with help from Disaster Management Authorities should promote awareness raising regarding disaster management and encourage creation of CBOs. Capacity Building of CBOs by NGOs and Research Institutes (like NIDM etc.) should be a continuous process.

