PROPOSED STRATEGIES FOR DISASTER PREPAREDNESS: SILAKHOR (DARB-E-ASTANEH) EARTHQUAKE, IRAN

Yasamin O. IZADKHAH
Assistant Professor, Risk Management Research Centre, IIEES, Tehran, Iran
izad@iiees.ac.ir

Keywords: Preparedness, Earthquakes, Iran, Silakhor, Disaster

Iran is located in one of the most active tectonic regions of the world and has suffered large and destructive earthquakes in the past few decades. Therefore, earthquake preparedness can be regarded as one of the factors which can contribute to the safety of citizens during natural disasters such as earthquakes in this country. In this regard, several measures have been developed and undertaken in Iran to improve the public knowledge on risk and disaster mitigation and management since the last two decades.

The aim of this paper is to review disaster preparedness in Silakhor earthquake. The Silakhor earthquake occurred on 31 of March 2006 at 4:47:02 local time (1:17:02 GMT) with the magnitude of M_L=6.1 within Southeast of Borujerd in Southwest of Iran, after the occurrence of several relatively strong foreshocks. The depth of earthquake was about 14 km and the intensity at the epicenter is estimated equivalent to VIII. According to the official reports, the earthquake had 63 fatalities and 1418 injuries. Moreover, 330 villages were damaged in Silakhor plain (Mirzaii and Sinaian, 2006). After the Bam earthquake in 2003, further activities were carried out to improve the public preparedness against earthquakes and mobilization of community residents and officials to face the effects of such events. Moreover, specialized courses for improving risk management in the country have been planned and organized. However, only considerable improvement could be observed in terms of public awareness up to the Darb-e-Astaneh-Silakhor earthquake (Izadkhah and Amini, 2010).

Considering the existing global experiences and based on lessons learned from the recent events such as Bam earthquake in Iran, the following strategies can be proposed for promoting the present conditions in Iran and most of the similar developing countries in the field of public awareness and professional training in disasters. Some of issues that can be considered in promoting public awareness and education are as follows:

- Preparing a comprehensive plan to address the necessary activities for promoting public awareness among different groups of people from ordinary residents to related stakeholders;
- Highlighting the role of local community centers, such as mosques, in Moslem countries in the comprehensive plan. Proper channels for providing related materials should be selected from the existing alternatives, including written materials, photos and files, movies, animation, teasers, trailers, etc. The media for providing these materials should be chosen from the media such as radio and TV, newspapers, posters, brochures, internet, etc.;
- Concentrating on the activities necessary for promoting preparedness in special time frames. However, in most of the developing countries, these activities are planned to be implemented in specific time which have less effectiveness. In fact, the sustainability of training programs is one of the important measures that can assure their effectiveness;
- Harmonizing the activities of different institutions in the field of public education and information dissemination;
- Adopting proper training based on the socio-economic and cultural situations of the local communities in order to cover most of the population at risk;
- Organizing regular drills and practices in the society for different target groups. In addition, earthquake museums and related national parks can play important roles in promoting knowledge and awareness on earthquake and mitigation measures among the residents;
- General training for local residents. This should explain the ways of sheltering or emergency response.

The following issues can be mentioned in regard to promoting the professional training:

- Improving the skills of workers in construction has important impacts on earthquake risk reduction. Thus, necessary training courses should be implemented for local workers in urban and rural areas;
- Training regularly for disaster management staff and related occupations in order to improve personnel capacities in using the advanced knowledge and technologies in implementation;
- Controlling the expertise of these workers by municipal governments or local authorities may encourage them to participate in training courses and improve their skills in construction;
- Increasing the culture of safety in construction stage can be also promoted through mass media to the public;
- Controlling the skill and knowledge of those working in the related fields of risk reduction and management should be prepared and applied;
- Documentating the impacts of previous events can play an important role in risk reduction, if used by relevant authorities.

It is therefore concluded that a comprehensive plan needs to be prepared in order to address the necessary activities for promoting public awareness among different groups of people from ordinary residents to all related stakeholders. In addition, proper methods as well as means of specific training for providing different types of education and promoting culture of safety against earthquakes should be adopted based on the socio-economic and cultural situations of the local communities. Also, necessary educational initiatives for local residents and professionals as well as regular drills should cover the subjects related to risk mitigation, with the hope that it results in disaster reduction in the country as well as other similar developing countries in the world.

REFERENCES

Izadkhah YO and Amini K (2010) An Evaluation of Disaster Preparedness in Four Major Earthquakes in Iran, *JSEE Journal*, Spring and Summer 12(1&2): 61-76

Mirzaii H and Sinaian F (2006) Report of Silakhor Earthquake, Building and Housing Research Center (BHRC), Tehran, Iran