CHAPTER 7
EXPERTS OPINION, FORMULATION OF QUESTIONNAIRE
PILOT TESTING AND FIELD SURVEY

7.1 EXPERTS OPINION

After having identified the perceived vulnerability of East Delhi District and the preparedness of community from the material in the public domain and having established the need for the research and the previous chapter, the researcher approached national and state level experts in the field of community based disaster management, both in the government and non-governmental organizations. Their names were shortlisted from the information available from the internet of prestigious organizations in the field of the DM, like National Disaster Management Authority (NDMA), National Institute of DM (NIDM), Indian Institute of Public Administration (IIPA), Haryana Institute of Public Administration (HIPA), Indian Red Cross, United States Foreign Services (USFS), etc. The names of shortlisted Disaster Management Experts are given below:

1. Gen. N.C. Vij (Retd.) - Former Vice-Chairman of NDMA and Former Chief of Army Staff
2. Dr. Satendra, IFS - Executive Director, NIDM, New Delhi
3. Prof. V.K. Sharma - Vice Chairman, Sikkim State DM Authority and Head of DM Deptt., IIPA, New Delhi
4. Prof. Santosh Kumar - Director, SAARC Centre for DM, New Delhi
5. Maj. Gen. RK Kaushal - Senior Specialist (Policy & Plans), NDMA
6. Dr. Amir Ali Khan - Associate Professor Earthquake, NIDM
7. Dr. M.L. Manchanda - Chief Coordinator, PG Diploma in Disaster Mitigation & Rehabilitation, Indian Red Cross, New Delhi
8. Brig.( Dr) BK Khanna - Senior Specialist (Training & Capacity Development), NDMA.
9. Dr. A Shrivastava - Head of DM Deptt., Haryana Institute of Public Administration, Gurgaon.

10. Shri Balaji - Country Representative, US Forest Service, USA

Before approaching the above renowned experts a questionnaire was formulated, a copy of which is attached as Appendix ‘A’. The purpose of the interaction with a DM Experts was to check if approach to my research work was appropriate and seek their guidance.

The DM Experts selected were either serving or had served at the apex level at the national and state level. Most of them had experience in the DM field ranging from 10 years to 40 years and had in-depth knowledge on CBDM. All 10 of them except 1 were of the opinion that the East Delhi was the most disaster prone district of NCT of Delhi. The sole exception was not certain whether it was first or second most disaster prone district.

In response to the question what types of disasters was East Delhi prone to, all of them were unanimous that it was prone to multiple disasters like earthquakes, floods, urban fires, building collapse, terrorist related disasters, road accidents and industrial disasters.

To the specific question on the impact of a major earthquake in East Delhi, their consensual reply was that it would cause enormous damage to infrastructure and loss of a large number of precious lives among the community.

As for the approach to be adopted to build up the capacity of the community and first responders, all were unanimous that a field survey should be carried out to find out the level of awareness and the preparedness among the community and the first responders.

While selecting the target group among the community, random sampling approach was adopted in selecting the various segments of society like lawyers, doctors, house wives, traders, school children, government officials, non-government officials, members of resident welfare associations and first responders, like law & order police, traffic police, bomb disposal squads, investigation police, fire and emergency services, electricity service provider (BSES), Delhi Jal Board, Municipal Corporation of Delhi (East), district public relation officer, medical
responders, like ambulance services, emergency medical teams and designated hospitals, 8 Battalion National Disaster Response Force, located in Ghaziabad, electronic and print media personnel, and others. They all agreed that although some initiatives had been taken to build the capacity by the East Delhi District Administration with the help of local NGOs, because of the large number of public inhabiting the district, coming from the lower strata of the society and economically weaker segments, there was a need to carry out an in depth study.

Following the random sampling design method, a sample size of primary sources of 600 samples consisting of first & second responders was considered adequate and adopted.

7.2 FORMULATION OF QUESTIONNAIRE
As questionnaire is considered to be the heart of the survey operation it was very carefully constructed. While setting up the questionnaire, the main aspects taken into consideration were general form, sequence of questions and formulation and wordings of the questions. The general form of questionnaire can be either structured or unstructured. Most of my questions were structural. In the structural form, questions are definite, concrete and pre-determined. Moreover, my questions were presented with exactly the same wordings and in the same order to all the respondents. It ensured that all the respondents replied to the same set of questions. The form of questions included either closed (Yes or No) or open inviting free response.

In order to make questionnaire effective and to ensure quality in the replies received, a set sequence of questions was stressed on. The questions were clear and smooth moving, meaning that the relation of one question to another was visible to the respondents. The easiest to answer questions were set up in the beginning. The opening questions were structured to arouse human interest. The relatively difficult questions were put towards the end so that if respondents decide not to answer such questions, considerable information would have already been obtained.

The third aspect of the question formulation and wording was to ensure that questions were clear and had no double meaning and there was no scope of misunderstanding which could do
irreparable harm to the survey. It was ensured that questions were impartial and do not give a biased picture of the true state of affairs. In short all questions met the following standards:

a) They were easily understood  
b) They were simple  
c) They were concrete and conformed as much as possible to the respondent’s way of thinking.

As regards to form of questions, two principle forms of questions were adopted, mainly multiple choice and open ended questions. Difficulties were encountered to questions which had multiple answers. These were however, surmounted by choosing simple and unambiguous wordings. Overall, the following essentials were adopted:-

a) That the questionnaire was short and simple,  
b) Size of questionnaire was kept to the minimum,  
c) The questions proceeded in a logical sequence from easy to more difficult,  
d) Technical terms and vague expressions capable of different interpretations were avoided,  
e) Questions were dichotomous (Yes or No), multiple choices or open ended. Some control questions were also included in the questionnaire to discern the reliability of the respondents,  
f) Adequate space for answers was provided for editing and tabulation,  
g) Provisions were made for indication of uncertainty, for example, ‘do not know’ or ‘no comments’ or ‘all of them’.  
h) Lastly, the questions were made attractive so that the responders willingly answered them.

**7.3 PILOT TESTING**

After the questionnaire was formulated and approved by my guide, to review it and to gain some valuable inputs, the questionnaire was pilot tested amongst 50 respondents from Est Delhi District. The respondents included the District Deputy Commissioner, District Disaster Management Coordinator (UNDP), Divisional Fire Officer, 5 people living in Lalitha Park Area (where building collapse took place in 2010), Civil Defence volunteers, 5 doctors, 3 lawyers, and
7 paramedic staff of East Delhi District and the students of Post Graduation Diploma on Disaster Mitigation and Rehabilitation, held at Indian Red Cross & Crescent Society, 1, Red Cross Road, opposite Parliament House, New Delhi. 4 major outcomes of pilot testing were as follows:-
a) The children should be included for the sample testing,
b) The questionnaire should be enlarged to include first responders,
c) The questionnaire should be in Hindi too besides English. This was required as large numbers of population in East Delhi did not understand English.
d) There should be fair representation of fair sex while selecting the sample size.

The questionnaire was accordingly modified and made bilingual and students were included as sample group and the scope of questionnaire was enlarged to include the first responders, as well. It was ensured that adequate representation of females were included in sample size. In its final shape the questionnaire was a structured one and had good open-ended and close ended questions.

7.4 FIELD SURVEY
The structured field survey was conducted during April to December, 2011. The study area chosen was East Delhi District. The data in the field survey was collected by the following means:

a) Sending the questionnaire through e-mail/mail to 200 respondents.
b) Visiting four schools, collecting students residing in East Delhi, informing them about my study of East Delhi and giving them the questionnaire.
c) Visiting the offices of DC East Delhi, Divisional Fire Officers, DCP East Delhi, Chief Warden of Civil Defence, East Delhi, Chief Medical Officer of East Delhi and giving them the questionnaire.
d) Engaging two NGOs working in East Delhi and giving them the questionnaire,
e) Questionnaire was distributed through friends and family members living in East Delhi District.
f) My personal interviews with the various segments of the community and the first responders
g) Engaging two enumerators who went door to door in the J.J. Colonies with the questionnaire, for collecting the data through schedules. This method of schedules proved to be more useful in extensive enquiries in economical weak segments. A copy of the questionnaire is attached at Appendix ‘B’.

Out of a total of 500 questionnaire forms and 100 schedules by the enumerators, 528 responses were received in all, making it 88% response, which is considered adequate for detailed analysis. Out of 528 respondents, males were 345 (64%) and female respondents were 183 (36%).

7.5 DIFFICULTIES EXPERIENCED.

Difficulties were experienced and problems cropped up during the field survey, which are given below:

a) Although the questions were simple and straight forward, the enumerators had to explain repeatedly, the contents and their meaning to many a questions. Sometimes it took them almost half a day to complete replies of just two respondents.

b) Although the time of the interviews was arranged before hand, because of the routine engagements, the researcher had to wait 3 to 4 hours to have the audience of the first responders like the Deputy Commissioner, Divisional Fire Officer, District Medical Officer and Deputy Commissioner of Police, to name a few.

c) While sending the questionnaire by post. The researcher had taken down besides the addresses, the telephone numbers of the respondents. When in a number of cases, the questionnaires were not being received duly answered, repeated requests were made to the concerned responders, on phone, to expedite their return. In a number of cases the researcher had to explain to the queries on many questions, spending on an average 30 to 40 minutes on a call to each such respondent.

d) A small percentage of respondents even misbehaved, when approached, saying that the researcher was unnecessarily wasting their time and they had no time to spare for such things when they were being affected/troubled by more urgent problems in their day to
day life, like hike in petroleum products, inflation, corruption, in-security and indiscipline in the society.
e) Some of the housewives thought that the researcher was a sales women promoting some consumer products and shut the door on her face.
f) A number of responders gave vague answers initially and had to be probed in depth through telephone calls, to seek their preferred correct answers.
g) Except for a few management level officials, like the Deputy Commissioner and District Fire Officer, others higher level officials/managers showed their indifference to the field of Disaster Management.
h) Had it not been for the willing co-operation of Ms. Surabhi, District Project Officer East Delhi, who encouraged and helped in distribution and collection of questionnaires from the various segments of society, the researcher would have faced many more problems. She deserves praise for rendering help.

7.6 CONCLUSION
Despite all the odds the researcher felt happy when the experts like Gen NC Vij, complimented her for coming out with a professionally sound document. All the pains were gone when the efforts bore fruitful results.