6  What was the sound like?
   - Trains passing from platform
   - Airplanes flying very low
   - A big truck accident
   - Any other

7  How did you feel at the time of the earthquake?
   - I was unable to stand still
   - I felt as if earth was moving with my step
   - Earth was going up and down and no one could stand still
   - Any other observations

8  What did you see / observe just after the earthquake?
   - A cloud of dust all around
   - Buildings falling
   - Screaming of people for help
   - You were trapped in
   - Other - pl give description

9  What worried you most at the time of earthquake?
   - Concerned about valuables
   - Wife / husband and Children
   - Relatives
   - Neighbors
   - Others

10 How people were rescued after the first four hours of earthquake?
    - Relatives and neighbors dug them out
    - Government agencies arrived to dig them out
    - Army came to rescue buried persons
    - Other agencies (pl name) arrived to help

11 How much time it took to complete the rescue effort? i.e. All those who
were alive were rescued -
Less than 24 hours. Yes | No
More than 24 but less than 48 hours. Yes | No
More than 48 hours. Yes | No

12 What type of tools were used during rescue work?

Ropes and pulleys Yes | No
Car/tractor jacks Yes | No
Heavy earth movers Yes | No
Any other (pals describe)

13 What happened to those who were injured in your home/neighborhood/community?

First aid was given locally Yes | No
They were taken to the local doctors Yes | No
They were transported to distant hospitals Yes | No
Injured remained unattended for a long time Yes | No

14 Did you or others in your neighborhood approach any Govt. agency for assistance at any time for rescuing buried people? Yes | No

15 If Yes, how the Govt. agency responded?

Response was excellent and immediate Yes | No
Registered the grievance but no help arrived Yes | No
No body even heard me or noted down my grievance Yes | No
I did not know whom to approach and there was total chaos in the Govt. office. Yes | No

16 Did any Govt. agency make any announcement regarding rescue, relief or any other measures during the first day of the rescue effort? Yes | No

17 Did any Government representative visit your area on the first day of the earthquake? Yes | No
18 Did any agency other than Govt. arrive to help your neighborhood or community?  

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

19 If yes, which Agency and what help did they offer on the first day?  

20 In your opinion who was most effective in the rescue work on first day?  

<table>
<thead>
<tr>
<th>Government</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>NGO</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Religious agency</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Relatives, friends and neighbors</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

21 What was the most critical requirement on the first day?  

<table>
<thead>
<tr>
<th>Water</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Tent and shelter</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Medicine and Health services</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Other (pl specify)</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

22 What was the most critical requirement on the second day?  

<table>
<thead>
<tr>
<th>Water</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Tent and shelter</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Medicine and Health services</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Other (pl specify)</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

23 Relief supplies were controlled and managed by  

<table>
<thead>
<tr>
<th>Government agencies</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>NGO</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Religious bodies like Swaminarayan etc</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Government + NGO</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Govt+NGO+Religious bodies</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Others</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

24 Distribution of relief supplies was  

<table>
<thead>
<tr>
<th>Very good and every one got what was needed</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

486
Needed supplies were not given | Yes | No
Supplies given were inadequate | Yes | No
There were long queues for getting supplies | Yes | No
Distribution was a total failure | Yes | No

25 Relief supply distribution would have been better if the task was given to
   Government agencies | Yes | No
   NGO | Yes | No
   Religious bodies like Swaminarayan etc | Yes | No
   Government + NGO | Yes | No
   Govt+NGO+Religious bodies | Yes | No
   Public representatives / Community volunteers | Yes | No
   Others

26 Rehabilitation works were controlled and managed by
   Government agencies | Yes | No
   NGO | Yes | No
   Religious bodies like Swaminarayan etc | Yes | No
   Government + NGO | Yes | No
   Govt+NGO+Religious bodies | Yes | No
   Others | Yes | No

27 Rehabilitation works were
   Very effective and completed in time | Yes | No
   Good | Yes | No
   Poor and delayed | Yes | No
   Most of the people are happy | Yes | No
   Most of the people are not happy | Yes | No

28 When did you have electric supply first time after earthquake (how many
days after the Earthquake)?

29 When did you have Water supply first time after earthquake (how many
days after the EARTHQUAKE)?
30. The first Government official to visit your community after the earthquake was
   Talati  Yes  No
   Circle officer/Mamlatdar  Yes  No
   Police personnel  Yes  No
   Any other Government employee  Yes  No

31. The above Government official visited how many days after earthquake?

32. When and how the school was re-started and your children started going there?
Emergency and Disaster management in Gujarat State

Questionnaire for Strategic Analysis (Student community)

In the following please tick mark all applicable:

1) Do you know what is
   - Earthquake [Yes/No]
   - Flood [Yes/No]
   - Cyclone [Yes/No]
   - Drought [Yes/No]
   - Tsunami [Yes/No]

2) Have you personally experienced any of the following?
   - Earthquake [Yes/No]
   - Flood [Yes/No]
   - Cyclone [Yes/No]
   - Drought [Yes/No]
   - Tsunami [Yes/No]

3) Do you know about the 26th Jan 2001 earthquake at Bhuj, Gujarat? [Yes/No]

4) If the disaster struck when you are in school/college, do you know what to do? [Yes/No]

5) In your view who can prove more effective educator on Disaster Response and Mitigation techniques? Please indicate by putting scores 1-5 (1 (very high), 2(high), 3(Medium), 4(Low), and 5(very low or lowest).
   - Parents
   - Teachers
   - Neighbors
   - TV, Radio, newspapers etc.
   - Government agency/officials

6) If the disaster struck when you are at home, do you know what to do? [Yes/No]

7) Do you think your school/college/teachers have a plan to respond to any disaster?
8. Do you think your parents or other elders in the family have a plan to respond to any disaster?  

Yes  No

9. Do you think it would be useful to be prepared for any disaster through a well-defined and discussed plan?  

Yes  No

10. Who should make such a plan?  

- Government agencies  
- school/colleges (Teachers+students+experts)  
- Parents (Parents+Neighbours+NGOs)  
- Neighbors  
- All of above  
- Other (please specify)  

11. Whom would you call first during any emergency in the school/college?  

- Fire department  
- Police  
- Teacher  
- Parents  

12. Please specify any emergency telephone number you would dial in case of emergency.
Emergency and Disaster Management System in Gujarat State

Questionnaire for NGO

A study is being undertaken at Gujarat University to understand factors responsible for organizational performance in "Effectively Managing Emergencies and disasters in the state of Gujarat (with a special attention on the 26 Jan 2001 Bhuj Earthquake). The outcome of study will be very useful to all - from Societies to Government in mitigation and management of disasters in the state. This questionnaire is designed to assess the experience of NGOs / Corporate sector in the aftermath of 2001 earthquake on various issues starting from their role in rescue work, relief management and rehabilitation. The assessment of the management issues are important for enabling effective participation of NGOs in the aftermath of extreme events and your response would be very useful to the study. All responses are considered anonymous and we assure complete confidentiality of the information. Your inputs will be used strictly for academic purpose.

R K Dave, Research Scholar Email: rkdave@ieee.org

In the following please tick mark all applicable responses

1. Are you aware that Gujarat was impacted by a very severe earthquake in 2001?  
   [Yes] [No]

2. Did your company/ agency contribute in any way to the disaster relief efforts then?  
   [Yes] [No]

3. If yes, please describe in brief the nature of that effort, approach, amount spent, no. of employees involved etc?

4. Who was in charge of that effort?

5. Does your organization have a conscious policy for helping in disaster relief effort?  
   [Yes] [No]

6. If yes, please describe the policy in brief (Please enclose a copy, if it is a written document, it can be mailed to rkdave@ieee.org at later date also)
7. Please describe the organization structure within your company/agency that is responsible for disaster relief work (with allocated responsibility and authority)

8. What is the budget allocation (in rupees) by your company for disaster relief work?

9. Which would be the most effective agencies for carrying out disaster relief work (Please give ranks, most effective being ranked no. 1)
   - Government
   - Voluntary Agencies/NGOs
   - Corporate
   - Local Public

10. Do you think that American Corporate/NGOs are more willing and better prepared than Indian Companies for disaster relief work?
    - Yes
    - No
    - Cannot Say

11. Are you happy with the Government's response when you interact with them for participation in any relief works?
    - Yes
    - No
    - Cannot Say

12. Do you feel that Government follows a well defined procedure while allocating works to NGO?
    - Yes
    - No
    - Cannot Say
Do you recommend any suggestion or improvement for smoothening Corporate/NGO participation in relief works? Please write below.

Personal information - Optional

Name

Organisation
Annexure – II

Model Emergency and Disaster Management System – National Government and State of Gujarat

Background

Emergency and disaster management scenario at national, state and local level is thoroughly reviewed and necessary recommendations and conclusion are made in Chapter twelve of this study. Some of the salient issues of emergency and disaster management are re-iterated and an attempt is made to quantify few components under this model.

Figure 1: Vulnerabilities of India