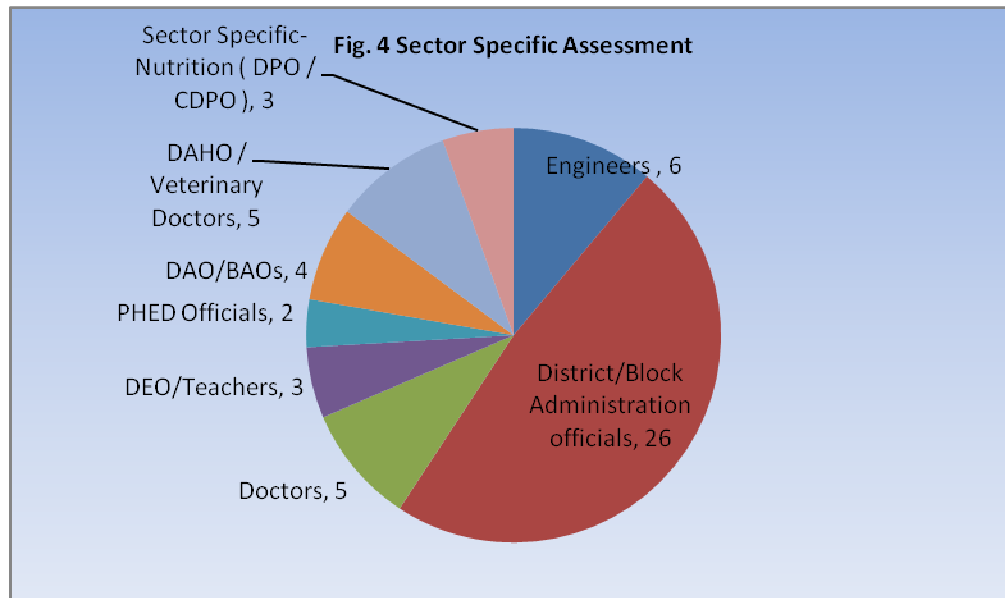


## 2- FINDINGS: SECTOR SPECIFIC ASSESSMENT

### SECTOR SPECIFIC ASSESSMENT -

Some key stakeholders were identified, mostly from line departments and some PRIs, for in depth evaluation.

Profile Respondents For Sector Specific Assessment	No.
Engineers	6
District/Block Administration officials	26
Doctors	5
DEO/Teachers	3
PHED Officials	2
DAO/BAOs	4
DAHO/Veterinary Doctors	5
Sector Specific- Nutrition ( DPO / CDPO )	3
Total	54
Zila Parishad Member	12



## 2.1 Engineers

Engineers play an important role in reducing the risk of disaster. An engineer's role is in pre-disaster planning and post disaster recovery/restoration/response planning.

In the assessment, four engineers were interviewed and two of whom are responsible for building construction. For them quality construction and site were concerns. However both said buildings were being constructed according to the building codes.

Only two of them knew the concept of retrofitting. Similarly, two of them were aware of latest techniques of DRR in building construction. [See Table 2.1.](#)

**Table 2.1: Engineers**

Questions	Response	Explanation Concern only for
1. Are you responsible for building construction in any way	Y- 2 N -4	<ul style="list-style-type: none"><li>• Only quality construction and site</li><li>• Quiz, painting, seminar, essay writing, debate on earthquake</li></ul>
2. Are buildings being constructed according to the building codes	Y-4 N-2	<ul style="list-style-type: none"><li>• According to ISI -456</li><li>• Coordination in place</li></ul>
3. Do you know the concept of retrofitting	Y-2 N-4	<ul style="list-style-type: none"><li>• ICE materials/pamphlets regarding disaster management</li></ul>
4. In your opinion whether the existing practices of building construction are proper and safe with respect to earthquakes?	Y-2 N-4	<ul style="list-style-type: none"><li>• Only new buildings are</li></ul>
5. Are you aware of latest techniques of DRR in building construction	Y-2 N-4	NA

The responses highlighted the awareness levels of engineers and identified gaps among a critical section of stakeholders'.

## 2.2: District/Block Administration Officials

Out of 26 District/Block Officials, 16 took part in a training program, mock drill, seminar and workshop on Disaster Management. Twenty-four Officials have co-ordinated between District/Block Administration and stakeholders. 25 officials of them were aware of use of Information and Communication Technology.

**Table 2.2: District/Block Administration**

Questions	Response	Explanation
<p>1. Have you taken part in training program, mock drill, seminar, workshop on disaster management?</p>	<p>Y-16 N-11</p>	<ul style="list-style-type: none"> <li>• WALMI Campus, District Workshop, Block workshop &amp; Village workshop</li> <li>• Boat driving and three days workshop on disaster</li> <li>• Community, Panchayat, school, block and district level</li> <li>• Training at district &amp; State level DRR</li> <li>• Flood, fire &amp; earthquake</li> <li>• In BIPARD as a training officer in District Head Quarter &amp; Block level</li> <li>• Mock drill was conducted</li> <li>• Quiz, Painting, seminar, essay, debate, writing on earth quake, Earth quake safety week (15th Jan - 21st Jan 2012)</li> <li>• Conducting training program, mock drill, seminar, and workshop on disaster</li> </ul>
<p>2. Is there coordination with the following stakeholders a) Line Departments b) Local NGOs</p>	<p>Yes  a) = 24 b) = 21</p>	
<p>3. Are you aware of use of information and communication technology in disaster management</p>	<p>Y-25 N-1</p>	<ul style="list-style-type: none"> <li>• Telephone diary of villagers and officers</li> <li>• Early warning and damage assessment, communication and information from block &amp; district level</li> <li>• IEC materials/pamphlets regarding disaster management</li> </ul>

**Table 2.2: District/Block Administration**

Questions	Response	Explanation
		<ul style="list-style-type: none"> <li>• Information and communication technology mitigate the disaster situation.</li> <li>• It helps in preparedness of disaster mitigation</li> <li>• Mobile communication, mass media</li> <li>• Radio &amp; News Paper are useful at Block and Panchayat levels</li> <li>• Remote sensing, Weather forecasting &amp; earth quake.</li> <li>• Through mobile &amp; other form of communications</li> </ul>
<p>4. Do you have any Disaster Management plan</p>	<p>Y-16 N-9</p>	<ul style="list-style-type: none"> <li>• DRR plan of 75 villages</li> <li>• SDMP of 6 schools</li> <li>• DRR plan, DRM Plan, Preparedness &amp; Capacity Building</li> <li>• Related to disaster preparedness</li> <li>• Related to preparedness and rescue</li> <li>• Relief camp management, Damage assessment</li> <li>• Includes high raised platforms, provision of food items &amp; drinking water in the case of flood</li> <li>• Detail data of Block chronic flood-prone areas</li> </ul>

This is a critical segment for dissemination of information and building community awareness. Their lack of training revealed a major gap.

### 2.3: Health (Doctors)

Out of 5 Doctors, three were adequately equipped and prepared to face emergency in the hospital. Two had specific trauma management plan like- special wing for casualty. See [Table 2.3.1](#).

**Table 2.3.1: Health (Doctors)**

Questions	Response	Explanation
1. Whether your hospital is adequately equipped and prepared to face the hazards (for example: Hospital Preparedness Plan, etc.)	Y-3 N-2	<ul style="list-style-type: none"> <li>Ready to move in attached area with medical &amp; relief kit.</li> </ul>
2. Is there any specific trauma management plan? Is it necessary at all	Y-2 N-3	<ul style="list-style-type: none"> <li>A special wing for casualty needed with trained personnel and infrastructure.</li> </ul>

Three of them have ranked “Location of stocks of food, medicine, health and water treatment and other sanitation supplies in government stores, commercial warehouses and international agencies and major NGOs” as most important in Mass Casualty Management, while two regarded Disaster profile of the region as first priority. [Table 2.3.2](#).

**Table 2.3.2:**

1. Mass casualty management plan includes ( <b>Rank 1 for most critical and 10 the least</b> )	Ranks									
	1	2	3	4	5	6	7	8	9	10
a) Disaster profile of the region	2								1	1
b) Population size and distribution								2		1
c) Topography and maps showing communication lines				1			1		1	
d) Epidemiologic profile of the region	1	1			1	1				
e) Location of health facilities and the services they provide		1	1						1	
f) Location of potential evacuation areas		1		1						1
g) Location of stocks of food, medicine, health and water treatment and other sanitation supplies in government stores, commercial warehouses and international agencies and major NGOs	3				1					
h) Key people and organizations who would be responsible for/active in Recovery and medical relief (contact phone numbers and addresses)	1	1			1	1				
i) Individuals with special competencies and experience (note: media) who may be mobilized on secondment from their institutions or as consultants in case of need (contact phone numbers & addresses)				1		1		1		
J) A roster of regular resource persons ready to translate technical information materials into local dialect			2				1			

**Table 2.3.3:**

4. In your opinion what are the duties of a doctor in a mass disaster situation. Arrange them in order of priority from 1 to 8.	Ranks							
	1	2	3	4	5	6	7	8
To certify cause of death		2	1	1		1		
To preserve the record			1	1	1	1		
To treat the victims	5							
To preserve evidences		1	1	1			1	
To record chronology of the event		2			1	1		
To assess their disabilities			2		2	1		
To conduct postmortem examination				2		3		
To dispose the dead bodies								1

All four doctors had programs for control of epidemics, such as Malaria, Dengue, and Diarrhea etc. [See Table 2.3.4.](#)

**Table 2.3.4:**

5. Is your department running any programs of control of epidemics, such as malaria, dengue, diarrhea etc.	Yes- 4	<ul style="list-style-type: none"> <li>• Bleaching powder mixing in drinking water well and DDT spray. Related medicine supply to affected area.</li> <li>• Malaria-National program, Dengue and diarrhea state level program.</li> <li>• St. John ambulance a brigade</li> <li>• Vertical programs &amp; trained personnel</li> </ul>
6. What is triage?		
a. An emergency situation requiring highest level of medical alertness	1	
b. Panic & chaos situation requiring specialized health management.	1	
c. Medical action of prioritizing treatment & management based on diagnosis & prognosis.	2	
d. None of the Above	0	
e. All of the above	3	

**Table 2.3.5:**

Questions	Response	Explanation
8. Please tick the topics for which you have ever received any training? a. Mass Casualty Management and Emergency Medicine b. Dealing with Dead in the aftermath of a disaster c. Minimum Initial Service Package for RH in crisis situation d. Handling casualty of Chemical, Biological, Nuclear and Radiological Disasters e. Hospital Safety f. Trauma Care g. None of above	0 0 0 0 1 1 1	
9. Have your paramedics and health workers attended any training programme on disaster management?	Y-1 N-3	Trained disaster management

Health care sector being critical to disaster management, shortcomings among its professionals are a serious cause for concern.

#### 2.4: School Safety (DEO / Education Deptt. Officials / Teachers)

**Table 2.4: School Safety (DEO / Education Deptt. Officials / Teachers)**

Questions	Response	Explanation
1. What do you mean by school safety? Please tick at least one answer. More than one option can be chosen if applicable. i) Fencing of school complex. ii) Hazard resistant safe construction iii) Training and Capacity building of teacher in disaster management iv) Preparation of School Safety Plan v) Conducting mock drills vi) Awareness about various hazards	1 2 2 1 2 2	
2. Have you any School Safety Plan?	Y-1 N 2	In Construction Work
3. Why is school safety important? Choose at		

**Table 2.4: School Safety (DEO / Education Deptt. Officials / Teachers)**

Questions	Response	Explanation
least one answer. More than one option can be chosen if applicable.		
i) Schools are generally more vulnerable	1	
ii) Children are more vulnerable group of society	3	
iii) Schools are one of the key critical infrastructures	2	
iv) Schools require to survive during disasters so that they	1	
v) Can be used as relief centers	1	
vi) Historically disasters have caused more damage in schools	1	
vii) Disaster preparedness in school educates community	1	
4. In your opinion School Safety is responsibility of .....		
i) District Administration	0	
ii) School Administration	0	
iii) Teachers	0	
iv) Students	0	
v) Society	0	
vi) i) and ii) Above	0	
vii) All of the Above	3	
viii)None of the Above	0	
5. What has your school done in school safety? Choose whichever is applicable.		
a. School disaster management plan has been prepared.	0	
b. Students have been educated about Dos and Don'ts of various hazards.	1	
c. Mock drill is being conducted regularly	0	
d. School building has been constructed hazard resistant	1	
e. The PTA, SMC etc. have been involved in school emergency management plan	0	
f. The vulnerable part of school has been strengthened.	0	
g. This issue has not been considered as yet.	0	
6. What has the school administration has done in last few months to disaster management	Y-1 N-2	Quiz & mock drill



**Table 2.4: School Safety (DEO / Education Deptt. Officials / Teachers)**

Questions	Response	Explanation
related activities like mock drill/quiz/essay writing/painting, etc.		
7. Has disaster management included in school syllabus by the Bihar Board of School Education? If yes, at what level? i) Primary Standard Level ii) Middle Standard Level iii) Higher Secondary Level iv) Senior Secondary Level	0 1 2 1	
8. Is it possible to integrate disaster issues in regular subjects like Geography, History, Language, and Science instead of creating a separate subject on D.M.?	Y-3	
9. What are the involvement of students in Disaster Management		<ul style="list-style-type: none"> <li>Student should know to over come the problem of disaster</li> </ul>

All of them said that School Safety is responsibility of District Administration, School Administration, Teachers, Students and Society. One official reported that his school has already done school safety for school building construction and students have been educated about Do and Don't in various hazards. Teachers will then develop a disaster management plan. Teachers need to identify vulnerabilities of the school. They spoke about an annual calendar to account for cyclical hazards that must be dealt repeatedly. Mapping the main physical features around the school will also support the disaster management planning process. The final planning document includes a resource matrix, details of coping capacity, and list of safe places and evacuation plans.

The responses appeared very generalized and indicated a wide gap in the potential of these stakeholders and their performance and perceptions.

## 2.5: Water, Sanitation & Nutrition (PHED Officials)

**Table 2.5: Water, Sanitation & Nutrition (PHED Officials)**

Questions	Response	Explanation
1. Do you have Water & Sanitation related Risk Reduction plan	Y- 1 N-1	<ul style="list-style-type: none"> <li>Facilities of Drinking water &amp; Sanitation</li> </ul>

**Table 2.5: Water, Sanitation & Nutrition (PHED Officials)**

Questions	Response	Explanation
2. As per sphere standards basic needs of the people during Disaster,( Please tick Corrected)		
a. Minimum water supply: 3 to 7 litres per capita per day	2	
b. Average requirement for camps: 20 litres per head per day	2	
c. Field hospitals: 60 litres per person	2	
d. Hand pump ratio: 1 hand pump for every 100 – 150 persons	2	
e. Animals: Cow 30 litres, goat 15 litres	0	
3. Are you doing any public health initiatives to prevent communicable health diseases?	N- 2	
4. Are you trained in Camp management practices during disaster response?	N- 2	
5. Which of the following sanitation related measures taken by your Department, Please tick?		
a. Damage assessment and repair – hand pumps , sanitary survey, provide corrective measures	2	
b. Temporary disposal of urban sewage – river, holding at a safe isolated place for final disposal	0	
c. Shallow trench latrines	2	
d. Chemical toilets	0	
e. Incremental improvement of all sanitary measures	0	
f. Concept of separation: urine, solid waste, sullage Identify defecation points based on good sanitary practices,	0	

The unsatisfactory response regarding public health as well as training are prominent red flags, seeking redressal.

## 2.6: Agriculture (DAO/BAO)

**Table 2.6: Agriculture ( DAO/BAO )**

Questions	Response	Explanation
1. Do you have Agriculture disaster risk reduction plan?	Y-2 N-2	<ul style="list-style-type: none"> <li>Contingent plan for drought situation</li> <li>Improving crop varieties which are resistant of flood &amp; Water</li> </ul>

**Table 2.6: Agriculture ( DAO/BAO )**

Questions	Response	Explanation
		management.
2. In agriculture department how Disaster Risk Reduction incorporated, please tick appropriate? a) Implementation of crop insurance policies b) Suggested specific disaster related varieties of crop c) Networking with Agricultural Institute d) Dovetailing of agriculture development plan	3 4 3 3	
3. What are your Cropping systems and cultivation methods (crop diversification, intercropping, adjustment of cropping calendars, soil conservation?)		<ul style="list-style-type: none"> <li>• Rice wheat cropping plan Para cropping pattern, Para cropping of <i>Masoor</i> (Pulse) instead.</li> <li>• Paddy shree method, wheat S.W.I. method, Zerofil Method</li> </ul>
4. What you are doing in Seed management, seed bank, storage of food grain, inventory and warehousing of food grains and post harvest management?		<ul style="list-style-type: none"> <li>• Seed Bank, storage of food grain</li> <li>• Seed Village Scheme, Mukhyamantri Trih Beej Yojna, Distribution of Seeds been RKVY, Construction of Godowns &amp; Cold storage are going on.</li> </ul>
5. What you are doing in Sustainable water management: improved design, construction and maintenance of irrigation and water control infrastructure; rainwater harvesting; water conservation?		<ul style="list-style-type: none"> <li>• Water conservation</li> <li>• Water shade management, Sprinkle Irrigation &amp; Micro Irrigation</li> </ul>
6. What you are doing in Infrastructural measures awareness on DRR like erosion control structure, building of and routine clearing of drainage: improved design, construction and maintenance of irrigation and water control structures; building of and routine clearing of drainage canals?		<ul style="list-style-type: none"> <li>• Erosion Control, Structure Building</li> </ul>
7. What your department is doing for Disaster Risk Reduction at household and community level?		<ul style="list-style-type: none"> <li>• Awareness</li> <li>• To adopt permanent seed bank</li> </ul>
8. Have you ever attended any training programme	Y-2	<ul style="list-style-type: none"> <li>• block level training</li> </ul>

**Table 2.6: Agriculture ( DAO/BAO )**

Questions	Response	Explanation
on disaster management?	N-1	for disaster management <ul style="list-style-type: none"> <li>• Capacity builder on DDR of block disaster</li> </ul>

Comparatively, the responses of this section were encouraging, although, by no means, it rules out complacency.

## 2.7: Animal husbandry (DAHO/Veterinary Doctors)

**Table 2.7: Animal husbandry (DAHO/Veterinary Doctors)**

Questions	Response	Explanation
1. Do you have animal disaster management plan	Y-2 N-3	<ul style="list-style-type: none"> <li>• By training to all concerned at local level</li> <li>• Veterinary doctor's team is made in each block, shelter place is identified, medicines are provided, and resources are identified.</li> </ul>
2. Veterinary disaster risk reduction plan includes, Please tick appropriates?		
a) Geographic description	4	
b) Disasters that have occurred	3	
c) Gaps in response	2	
d) Hazard maps	2	
e) Goals and Objectives	2	
f) Potential Problems Analysis	3	
g) Resource Analysis	3	
h) Management Structure	3	
i) Explain the organization Specify command, control, lead organization and coordination.	3	
j) Roles and Responsibilities of Veterinary doctors	2	
k) Strategies	2	
l) Directory of contact persons	3	
m) Emergency Relocation of animals	3	
n) Medical Record back-up	3	
o) Security strategies	3	
p) General emergency planning	4	
q) Hazard prevention methodology	3	

**Table 2.7: Animal husbandry (DAHO/Veterinary Doctors)**

Questions	Response	Explanation
r) Insurance and Legal issues	2	
3. How do you manage Livestock in emergency?	Y-5	<ul style="list-style-type: none"> <li>• By educating people</li> <li>• During disaster animals should kept on high ground place, fodder to be stored, health checkup should also be done</li> <li>• Grass and fodder management.</li> <li>• Through block animal husbandry officer and training veterinary officer posted in veterinary dispensary within block level.</li> </ul>
4. Are you doing regular checkups of livestock including vaccination?	Y-5	<p>By seeing animal signs and symptoms as well as its history</p> <p>F.M.D. vaccination in December every year, H.S. &amp; B. Q. Vaccination in June a7 July every year</p> <p>In a year twice vaccination, every six month is done to animals.</p> <p>No regular checkups are done, vaccination is done when facilities are provided by the Government</p> <p>Vaccination and disease control</p>



Responses of these officials, too, were encouraging in comparison, for the most part, they covered the gamut of activities.

## 2.8: Nutrition (DPO / CDPO)

**Table 2.8: Nutrition ( DPO / CDPO)**

Questions	Response	Explanation
1. Do you have Nutrition Preparedness Plan for Disaster Risk Reduction		
a. Nutritional Management	3	
b. Adequate Nutrition during emergencies	3	
c. Promotion of Cultural and Indigenous Habits	2	
d. Promotion of Breast-feeding	3	
2. Have your ASHA worker and Aganwadi (Sewika and Sahaeka) worker attended any training programme on disaster management?	N- 3	

During TNA process less no. of respondents were available but all Nutrition officers reported that ASHA workers and Aganwadi (*Sewika and Sahaeka*) workers have not attended any training programme on Disaster Management.

Training of personnel was totally absent, indicating a need for concerted intervention.