

## Awareness of Rural Youth towards Disaster Management: A Gender Disintegrated Study

Sanjit Roy<sup>1</sup>, Prabhat Kr. Pal<sup>2</sup> and Kausik Pradhan<sup>3</sup>

1. P.G. Student, 2 & 3. Asstt. Prof., Deptt. of Agril. Ext., UBKV, Pundibari, Cooch Behar, WB

*Corresponding author e-mail: sanjit.roy61@gmail.com*

### ABSTRACT

*The Disaster Management Act, 2005 envisaged that Comprehensive disaster management and emergency preparedness should be based on the concept of active young people's participation in all phases of the disaster cycle. Rather than seeing disaster-affected youth as victims or passive recipients of outside assistance, good disaster management must recognize the value of including them in the planning process. There is no better resource in a community than young people. With this backdrop, the present study was undertaken to assess the benchmark situation of rural youth regarding their awareness towards disaster management. The study was conducted in Sadar Block of Jalpaiguri district, West Bengal. Two adjacent villages namely Vivekananda Palli and Balapara were purposively selected considering their exposure and vulnerability to disaster. 100 numbers of youths from the age group of 18-35 were selected on a stratified sampling basis from both the villages. A pre-tested schedule was administered to the selected individuals and data collected through personal interview method. Flood is the most known disaster followed by drought, earthquake and cyclone on an average. Females are ahead of males in awareness towards disaster. Awareness was negatively correlated with age but positively and significantly correlated with cosmopolitanism, asset possession, family education status, information seeking behavior, housing and sanitation index, training and organizational participation.*

**Key words:** Rural Youth; Awareness; Disaster Management; Socio-economic Character;

Disasters accounts for 98 per cent of the cumulative number of people affected by natural disasters and 77 per cent of total reported economic damage; in the least developing countries (LDC) in particular, climate-related disasters accounted for 89 per cent of the total economic damages (WMO, 2007). Most people in developing countries have limited capacity to assess climate risks and lack available weather information required to plan adaptive responses. These people are more likely to be severely affected by climate-related diseases, such as influenza, diarrhea, cholera, meningitis, dengue, and malaria. Weak infrastructure, poor communication networks, shortage in electricity supply, low public awareness, and insufficient resources in many communities and neighbourhoods hinders the provision of timely climate and early warning advice, which can delay response efforts causing a significant amount of impact (Akeyo, 2012).

India is vulnerable, in varying degrees, to a large number of natural as well as man-made disasters. 58.6 per cent of the landmass is prone to earthquakes of moderate to very high intensity; over 40 million hectares (12%) is prone to floods and river erosion; of the 7,516 km long coastline, close to 5,700 km is prone to cyclones and tsunamis; 68 per cent of the cultivable area is vulnerable to drought and hilly areas are at risk from landslides and avalanches. Vulnerability to disasters/emergencies of Chemical, Biological, Radiological and Nuclear (CBRN) origin also exists. Heightened vulnerabilities to disaster risks can be related to expanding population, urbanisation and industrialisation, development within high-risk zones, environmental degradation and climate change (NDMA, 2009).

Youth in any nation are critical for its continued economic development and demographic evolution. The youth population, which typically constitutes the entering cohort in the country's labour force, is expected to bring

in freshly learned and updated skills that will help renew and improve the country’s stock of human capital. However, many authors and government reports have fixed various limits of age ranges for defining youth. The lower limit varies from as low as 10 years to 24 years while upper limit varies from only 19 years to a maximum of 35 years (Roy, 2013). But from the perspective of disaster management (where a serious responsibility is associated) the present study undertaken the age limit as 18 to 35. Participation of rural youth in the development process is essential in order to bring change in socio-economic structure and improving the quality of life of an individual.

In 2005, Government of India (GoI) took a defining step by enacting the Disaster Management Act, 2005, which envisaged that Comprehensive disaster management and emergency preparedness should be based on the concept of active young people’s participation in all phases of the disaster cycle. Rather than seeing disaster-affected youth as victims or passive recipients of outside assistance, good disaster management must recognize the value of including them in the planning process. There is no better resource in a community than young people. It may be easier to obtain funding for projects and related disaster preparedness programs, but without sufficient community resources in place, disaster preparedness and risk reduction are not possible (NDMA, 2009).

Shri Yoginder Koul, The Inspector General of Police, Govt. of J & K, while addressing a meeting of field functionaries of Civil Defence organization at Udhampur on 12th December, 2012 said that the rural youth could be involved by delivering mandatory training of disaster management at the village level besides familiarizing the rural peoples with the importance of disaster management techniques (*Rising Kashmir*).

With this backdrop, the present study was undertaken to assess the benchmark situation of rural youth regarding their awareness towards disaster management.

**METHODOLOGY**

The study was conducted in Sadar Block of Jalpaiguri district, West Bengal, India. Two adjacent villages namely Vivekananda Palli and Balapara were purposively selected considering their exposure and vulnerability to disaster.

After selecting the villages a list of all the families and the number of population under the age group of 18-35 years were listed. From this list 100 numbers of youths (irrespective of male and female) were selected on a stratified sampling basis. For collecting primary data regarding the study a schedule was prepared by repeated pilot survey. Schedule was administered to the selected individuals and data collected through personal interview method. In the pilot survey a number of questions were exposed to the respondents (taken from non-sample areas) along with some open ended fields (altogether 60 fields). The questions which were rightly answered by at least 10% of the respondents to a maximum of 90% of the respondents were finally selected. And thus a list of 26 (twenty six) questions were selected.

**RESULTS AND DISCUSSION**

*Characteristics of the Respondents:* Table 1 represents the mean scores of socio-economic and personal characters of the respondents based on sex. A t-test value was also calculated to grasp whether there is any significant difference in the characteristics between male and female youth of the study area.

From the table, it is evident that the of the youth respondents of the study area were mostly from the 22-24 years of age although there was a significant difference exists between female and male respondents in this character (t-value=2.26 which is significant at 1% level). In case of other socio-economic and personal characteristics the respondent acquired low to middle range of values. Moreover, other than age, in respect of cosmopolitaness (outside contact), communication

**Table 1: Mean score of socio-economic and personal characters**

Variables	Max. Value	Mean value		t-value
		Female	Male	
Age	-	22.53	24.86	2.26**
Educational level	6.00	4.50	3.98	-1.33NS
Cosmopolitaness	12.00	3.44	4.88	4.76**
Org. Participation	2.00	0.36	0.05	-2.76**
Income (monthly) (Rs.)	-	543.06	4200.0	5.49**
Information seeking	12.00	3.86	4.80	2.02*
Asset Possession	24.00	6.06	6.52	-0.66NS
Housing condition	4.00	2.28	2.13	-1.93*
Sanitation of the house	2.00	0.61	0.63	0.13NS

\*\*significant at 1% Level

\*significant at 5% level

behavior, organizational participation, income, asset possession and nature of housing, male and female youths were significantly different from each other. Whether average monthly income of female respondents is significantly very low in comparison to the male counter parts, they have a significant higher participation in rural organizations. It may be due to the fact that the female members of the rural areas are mostly engaged

in organizing Self-Help Groups.

*Awareness Level of Rural Youth towards Disaster Management:* To assume the awareness level towards disaster management, 26 (twenty six) questions (Table 2) were selected from the pilot study and were exposed to the respondents of the study area. If the response was right it was scored '1', viz. in that field of awareness the respondent is regarded as aware and if the response

**Table 2: Awareness level of rural youth towards disaster management**

Particulars (Questions)	Male		Female	
	No.	%	No.	%
<i>Cyclone</i>				
Checking home condition especially roofing is essential to reduce cyclone damage	28	43.75	27	75.00
Unsafe buildings or parts should be demolished to reduce cyclone damage	24	37.50	12	33.33
Agricultural implements should be kept in open field to avoid cyclone damage	48	75.00	28	77.78
Going under a tree is safer when cyclone hits the area	44	68.75	23	63.89
<i>Drought</i>				
Pulse or millets are the appropriate crops when day spell occur	48	75.00	19	52.78
Water source monitoring and its balance utilization is a good practice during drought	36	56.25	24	66.67
Checking runoff and allowing infiltration is a good practice to uplift groundwater	39	60.94	20	55.56
When there is drought spell rice is the appropriate crop	40	62.50	16	44.44
<i>Earth Quake</i>				
Keep some furniture in corridors to enable yourself to take those with you out of home during earthquake	36	56.25	16	44.44
You are placed in seismic region-I (most vulnerable) region	35	54.69	29	80.56
Animal behaviour change (like cat fish) is an indicator of earthquake	36	56.25	20	55.56
Place heavy and bulky things at bottom and heavy things on the top to reduce damage during earthquake	32	50.00	17	47.22
<i>Disease Epidemic</i>				
Amoebiosis is a water borne disease.	20	31.25	17	47.22
Crocin is an anti-fever medicine	4	6.25	16	44.44
Malaria mosquito is born in stagnant but clean water	28	43.75	8	22.22
Halogen tablets are used for blood purification	40	62.50	25	69.44
<i>Fire</i>				
If you get a gas leakage smelling immediately put on the light and check for leakage	32	50.00	24	66.67
Although the house is burning, you should search and carryout your valuables from the home	25	39.06	24	66.67
Home roofing, if done with straw or forest leaves, should be wetted frequently with water in hot summer	44	68.75	20	55.56
What is the phone number of fire brigade?	40	62.50	7	19.44
<i>Flood</i>				
During flood you need not to bother about a floody road to drive to escape yourself from flooding	47	73.44	28	77.78
In flood prone and marshy area, the basement of home should be so prepared that flood water can flow freely through it	43	67.19	28	77.78
You should not go on the bund during flood	52	81.25	32	88.89
Use of plastics and throw it here and there enhance flood	40	62.5	32	88.89
It is very healthy to eat fishes caught from flood water	41	64.06	28	77.78
Restriction of natural flow of water have no effect on severity of flood	45	70.31	28	77.78

is negative the score was '0', that means the respondent had no awareness in that field.

From the table, it is explicit that the per cent age of people who had awareness on various aspects of disaster management varies from 6.25 per cent to 81.25 per cent in case of male and 19.44 to 88.89 per cent in case of females. In more than 80 per cent of the cases, more number of females had awareness than male respondents. It may be due to the fact that males are more engaged in different types of occupational activities. Moreover, females are the first to be exposed to the disaster risks and vulnerability of the family. So, their natural vulnerability forced them to be aware about this.

Among different aspects of disaster management, highest per centage of aware respondents is found from the fields of Dos' and Don'ts about different types of disasters. Moreover, in case of males, flood is the most known disaster followed by drought, earthquake and cyclone on an average, whereas in case of females, again flood is the most known disaster with the same pattern of rank for other types of disaster. In both the cases of males and females, disease epidemic is the least known disaster, although in its hazard value it ranks second in order.

Table 3 presented the distribution of respondents according to the level of awareness on different types of disasters and their management. Awareness regarding flood, earthquake, drought, cyclone, fire and disease epidemics was considered. Respondents were placed as highly aware (awareness index is more than 0.67), moderately aware (awareness index is between more than 0.34 to 0.67), low aware (awareness index is upto 0.34) and no awareness who had attained no score on disaster management on that field. The table showed that the flood is the mostly known disaster (57.81

per cent male and 77.78 per cent of female are highly aware about this) followed by earthquake, drought, cyclone and fire. The least aware disaster is the disease epidemics which are highly known by only 7.81 per cent of respondents. 54.69 per cent, 51.56 per cent, 48.44 per cent and 39.04 per cent of the respondents were highly aware regarding these disasters respectively. There was none who did not know anything about flood, but there were 23.44 per cent male and 11.11 per cent female respondents who did not know anything on earthquake; or 12.50, 6.25 and 12.50 per cent of male respondents who did not know anything on cyclone, fire and disease epidemics respectively.

*Correlation between socio-economic and personal characteristics with awareness and participation towards disaster management :* From the Table 4 it is found that the awareness regarding disaster management is significantly correlated with the age of the respondent, Cosmo politeness, asset possession, family education status, information seeking behavior, housing and sanitation index, training and organizational participation and performance towards disaster management. Only number of family members has no relation with awareness. Among these variables, age had negative relationship with awareness. It is due to the fact that in the study area, most of the young aged people are the members of student community. The students are more interested in acquiring and seeking awareness information from different sources and various fields than any other age groups.

The performance is also positively and significantly correlated with cosmo politeness, asset possession, family education status, information seeking behavior, housing and sanitation index, training and organizational participation. Cosmo politeness makes an individual

**Table 3: Distribution of respondents according to awareness regarding disaster management**

Disasters	High Index value > 0.67		Medium Index value > 0.34 to 0.67				Low Index value upto 0.34				No Index value < 0.34					
	Male		Female		Male		Female		Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Flood	37	57.81	28	77.78	11	17.19	5	13.89	16	25.00	3	8.33	0	0.00	0	0.0
Earth Quake	35	54.69	16	44.44	7	10.94	13	36.11	7	10.94	9	25.00	15	23.44	4	11.11
Drought	33	51.56	19	52.78	23	35.94	5	13.89	8	12.50	7	19.44	0	0.00	5	13.89
Cyclone	31	48.44	20	55.56	13	20.31	5	13.89	12	18.75	11	30.56	8	12.50	0	0.00
Fire	25	39.06	17	47.22	27	42.19	11	30.56	8	12.50	0	0.00	4	6.25	8	22.22
Epidemics	5	7.81	11	30.56	27	42.19	9	25.00	24	37.50	7	19.44	8	12.50	9	25.00

**Table 4: Correlation between socio-economic and personal characteristics with awareness and participation towards disaster management**

Personal and family characteristic variables	Zero-order Correlation (r-value)
Age of the respondent	-0.307**
Number of family members	0.140
Cosmo-politeness	0.239*
Asset Possession	0.191*
Family education status	0.489**
Information seeking	0.239*
Housing and Sanitation Index	0.335**
Training and organisational Participation	0.306**

\*\* Significant at 1% level

\*Significant at 5% level

more exposed to the outer world which, as a result increases the general as well as specific awareness level. More the asset possession of a family, they have more access to education and other amenities of the society. This indirectly influences the acquisition of knowledge and awareness towards disaster.

Relationship with family education status, information seeking behavior and training and

organizational participation may be explained from the same reasoning. Housing and sanitation index is the reflection of the economic condition of the family and so it also can be explained from the same reasoning with asset possession. Relationship between awareness and participation is also positive and significant.

## CONCLUSION

It is found from the study that flood is the most known disaster followed by drought, earthquake and cyclone on an average. Females are ahead of males in awareness towards disaster. Awareness was negatively correlated with age but positively and significantly correlated with cosmopolitaness, asset possession, family education status, information seeking behavior, housing and sanitation index, training and organizational participation. Government and other development organisations should intervene on increasing these socio economic and personal variables to prepare rural youth to cope with disaster risk of the community, and they should also stress on women participation in disaster assessment, preparedness and prevention in the community level.

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