

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

Sanjit Roy¹, Prabhat Kr. Pal² and Kausik Pradhan³

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

In the recent era, the ever increasing occurrence of natural disaster paves the way of appropriate disaster management strategy development through awareness generation, early preparedness about the natural disaster. Moreover the Disaster Management Act, 2005 reemphasises the need of active young people's participation in all phases of the disaster cycle for comprehensive disaster management strategy and emergency preparedness. With this backdrop, the present study was undertaken to assess the existing awareness pattern of rural youth towards disaster and its' management. The study was conducted in Jalpaiguri Sadar Block of Jalpaiguri district, West Bengal. The purposive and stratified random sampling procedure was followed in the present study. Hundred numbers of youths (irrespective of male and female) from the age group of 18-35 were selected for the study. The data were collected with the help of pre-tested structured interview schedule through personal interview method. The collected data were processed into some descriptive statistics and correlation analysis to draw a conclusion. In the study area, flood is the most frequent disaster followed by drought, earthquake and cyclone on an average. The awareness level of females is more than males about disaster and its' management. Awareness level about disaster and its' management was negatively and significantly associated with age but positively and significantly associated with cosmopolitanism, asset possession, family education status, information seeking behaviour, housing and sanitation index, training and organizational participation.

Key words: Rural youth; Awareness; Disaster management; Relational analysis, Stratified random sampling

In the present scenario, natural disaster is a frequently occurring inevitable phenomenon due to anthropogenic activity of the human being. 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, diarrhoea, 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, 2010). The disaster vulnerability reflects the daily conditions of society and that hazards should be viewed as the extension of everyday hardships that occur when the victims had been marginalised geographically, socially and politically (Gaillard, 2007). The resource poor people around the world suffer the greatest disaster losses and have the most limited access to public and private recovery assets, both in developing societies as well as in wealthy, industrialised nations (Fothergill and Peek, 2004).

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).

As an aftermath of frequently occurring disasters there is a need to reinvent the potential actors' role in case of awareness building for appropriate disaster management. The real challenge with any disaster management strategy lies in the human factor. 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.

During 2005, Government of India took a defining step by enacting the Disaster Management Act 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. Without sufficient community resources in place, disaster preparedness and risk reduction are not possible (NDMA, 2009).

So, rural youth can play a pivotal role to develop a distinct disaster management strategy through awareness generation and development early preparedness mechanism about the disaster. Keeping these in view, the present study was undertaken to assess the awareness pattern of rural youth towards disaster and its' management.

METHODOLOGY

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

disaster and vulnerability due to disaster. An exhaustive list of the people under the age group of 18-35 years within the selected villages was prepared. From this list 100 numbers of youths (irrespective of male and female) were selected by following the stratified random sampling procedure.

The data were collected with the help of pretested structured interview schedule through personal interview method. The collected data were processed into some descriptive statistics and correlation analysis to draw a conclusion.

RESULTS AND DISCUSSION

Table 1 presents the descriptive analysis of the socio-personal characters of the rural youth categorised on the basis of their gender. A t-test value was also calculated to inculcate the significant mean difference in the characteristics between male and female youth within the study area.

The respondents in the study area were mostly under the age group of 22-24 years and also there was a significant difference between female and male respondents (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 behaviour, 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 but the female respondents have a

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

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.

Table 2 delineates the awareness level of rural youth towards disaster management. The 6.25 per cent to 81.25 per cent male respondents and 19.44 per cent to 88.89 per cent female respondents are aware about

the different aspects of disaster management. In more than 80 per cent of the cases, females are more aware than male respondents about the disaster management. It may be due to the fact that males are more engaged in different types of occupational activities but being the insiders, females are primarily exposed to the disaster risks and vulnerability within the family. So, their natural vulnerability forced them to become aware about this.

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 dry 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> | | | | |
| Amoebiasis 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 |

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 |

Among different aspects of disaster management, highest percentage of aware respondents is found from the fields of Dos' and Don'ts about different types of disasters. 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 pre sents the distribution of respondents according to the level of awareness on different types of disasters and their management. The table showed that the flood is the mostly known disaster (57.81% male and 77.78% 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 are 23.44 per cent male and 11.11 per cent female respondents who do not know anything about earthquake; or 12.50, 6.25 and 12.50 per cent of male respondents who do not know anything about cyclone, fire and disease epidemics respectively.

Table 4 envisages the correlation analysis between awareness regarding disaster management and eight causal variables. It is found that the awareness regarding disaster management is significantly correlated with the age of the respondent, cosmopolitaness, asset possession, family education status, information seeking behaviour, 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 has negative correlation 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 seeking information from different sources in various fields than any other age groups. The schools play an important role in awareness amongst students, teachers and parents because the more a child is aware of hazards and realistic risks, the more potential there is for the adults to be educated through the child sharing that knowledge at home (Shaw et al., 2004).

The performance is also positively and significantly correlated with cosmopoliteness, asset possession, participation. Cosmopoliteness makes an individual more exposed to the outer world which in turn increases the

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

family education status, information seeking behavior, housing and sanitation index, training and organizational general as well as specific awareness level. The higher level of the asset possession in a family, family education status, information seeking behaviour and training and organizational participation helps to access more resources, education and other amenities within the society. This indirectly influences the acquisition of knowledge and awareness about disaster and its' management.

CONCLUSION

After critically analysing the different aspects of disaster and its' management the study explores 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 and its' management. Awareness about disaster management

is negatively and significantly correlated with age but positively and significantly correlated with cosmopolitaness, asset possession, family education status, information seeking behaviour, housing and sanitation index, training and organizational participation. Government and other development organisations should give impetus in increasing these socio personal attributes of rural youth to develop an appropriate disaster management strategy for reduction of disaster vulnerability within the community through generation of awareness and early preparedness about the perceived disasters. However, it is worthwhile to mention that women can play a pivotal role to prepare an appropriate disaster management strategy through disaster assessment, preparedness and prevention in the community level.

Paper received on : October 21, 2013

Accepted on : November 23, 2013

REFERENCES

- Akeyo, Stephen O. (2010). Youth involvement in disaster management. 5th Annual Caribbean Conference on Comprehensive Disaster Management. Montego Bay, Jamaica. December 9, 2010.
- Fothergill, A. & Peek, L.A. (2004). Poverty and disasters in the United States: A review of recent sociological findings. *Natural Hazards*. **32**:89-105.
- Gaillard, J. (2007). Resilience of traditional societies in facing natural hazards. *Disaster Prevention and Management*. **16**(4): 522-544.
- NDMA. (2009). National Disaster Management Agency. Retrieved from: <http://ndma.gov.in/ndma/index.htm>
- Shaw, R., Shiwaku, K., Kobayashi, H. & Kobayashi, M. (2004). Linking experience, education, perception and earthquake preparedness. *Disaster Prevention and Management*. **13**(1): 33-49.
- World Metrological Organization -No. 1025. (2007). Climate information for adaptation and development needs. Retrieved from: http://www.wmo.int/pages/publications/showcase/documents/WMO_1025_web_E.pdf

