

Disaster management –An overview of people's perception

S.K. SAMANTARAY

Subject Matter Specialist, KVK, Ganjam-I, Bhanjanagar, OUAT

Abstract

The eastern part of Odisha is vulnerable to disasters like flood and cyclone causing huge loss to the people. A study was undertaken with 80 affected people from 10 villages of 5 Gram Panchayats for altering their perception to disaster management. It has been observed that the people of the area should inform the details of information sufficiently ahead of the flood and cyclone. People must be made conscious about preserving safe drinking water, usable assets, materials for temporary shed and essential medicines. The government functionaries have to strengthen in selecting safety place for rehabilitation, stocking essential medicines and adequate arrangements for rescue and shifting of affected people immediately. Immediate action need to be taken for restoration of transport and communication system with all sanitation measures. People must be trained to develop their capability towards preparedness and mitigation measures.

Keywords: Disaster, Management, People, Flood, Cyclone

Introduction

India is the seventh largest country in the World and highly prone to disasters. The country is susceptible to all types of disasters i.e. earthquakes, drought, flood, cyclone, sunami, landslides, desertification etc. In India, 70 percent area is drought prone, 60% earthquake, 12% flood and 8% cyclone prone area. Disasters usually play with the lives of millions of people. The huge loss occurred by disaster had shaken our concern about disaster. The eastern part of Odisha is vulnerable to floods and cyclones and these are the natural phenomena occurring at regular interval. The perception and impacts of disasters experienced by the people over the years indeed help them for gaining increased predictive power for which people can take management strategies to break the cycle of disasters and its damage, reconstruction and repeated damage. On the basis of the above facts, an attempt has been made to assess the efficiency of the affected people in managing disasters.

Materials and methods

The study was undertaken in Pattamundai block of Kendrapara district in Odisha vulnerable to flood and cyclone. Eight farmers each from 10 villages of 5 Gram panchayats were selected randomly as the respondents for the study making total sample size of 80. Information was collected personally through a semi-structured schedule pre-tested earlier. Collected data were put in to statistical analysis to reveal the results.

Results and Discussion

People of Pattamundai block are usually affected

by flood and cyclone and habituated with the disaster. Opinion of the respondents about the systems of occurrence of disaster revealed from Table-1 that majority of the respondents had stated that high depression (73.50%), continuous heavy rain (71.25%) and cloudy weather(67.50% were the systems for the occurrence of disaster always. Good percentage of respondents also stated about the occurrence of disaster by visualizing ITK which they experienced. It is therefore stated that the respondents had good experience about the climatological systems for occurrence of flood and cyclone.

Information is transmitted through different media to appraise people about the occurrence of disaster and taking precautionary measures. It is observed from Table-2 that majority of the respondents had stated that they are always getting information on the occurrence of disasters from electronic media like television and radio (51.25%), friends and relatives (62.50%). Similarly, 52.50% of the respondents stated for getting information sometimes from local leaders about occurrence of disaster. Though mixed responses were obtained on print media like news papers, bulletins etc. but the mean score value indicated as the important source. Voluntary organizations also taking active part in disaster management but 62.50% of the respondents were never getting information about the occurrence of disaster. The findings therefore reveal that the respondents are not getting information always from any of the source as mentioned in the table, but friends and relatives followed by electronic and print media

Table 1: System of occurrence of flood and cyclone

S.No.	System	Always(%)	Sometimes(%)	Never (%)	Mean score	Gap(%)
1.	Cloudy weather	67.50	32.50	0.00	2.68	10.67
2.	Continuous heavy rain	71.25	28.75	0.00	2.71	9.67
3.	High depression	73.50	26.50	0.00	2.74	8.67
4.	Visualizing ITK	42.50	32.50	25.00	2.18	27.33

Table 2: Source of information about occurrence of flood and cyclone

S.No.	System	Always(%)	Sometimes(%)	Never (%)	Mean score	Gap(%)
1.	Print media	46.25	41.25	12.50	2.34	22.00
2.	Electronic media	51.25	38.75	10.00	2.41	19.67
3.	Public relation department	42.50	32.50	25.00	2.18	27.33
4.	Local Leaders	27.50	52.50	20.00	2.08	30.67
5.	Friends and relatives	62.50	22.50	15.00	2.48	17.33
6.	Voluntary Organizations	10.00	27.50	62.50	1.40	53.33

were the better source of information about occurrence of disasters.

The people of the affected area should get the information sufficiently ahead of the occurrence of the disaster so that they can take precautionary measures for preparedness and mitigation. As observed from Table-3, majority of 68.75% had stated for getting information only one day before of the occurrence of disaster. Unless the affected people receive information sufficiently ahead, they cannot get sufficient time for taking preparatory and mitigation measures as one day is not adequate enough for taking precautionary measures.

Table 3: Time of getting information on flood and cyclone

S.No.	Time of occurrence	Frequency	Percentage
1.	One day before	55	68.75
2.	Two days before	16	20.00
3.	Three days before	9	11.25

Sufficient information about the occurrence of floods and cyclones need to be transmitted to the people to take preparatory measures by assessing its intensity. Opinion of the respondents reveal that (Table-4) majority of the respondents strongly agreed for not giving sufficient information and insufficient attempt for ensuring food security(60.00%), insufficient planning for rehabilitation(58.75%) and information not received by all the people(55.00%). Similarly, majority of the respondents also agreed for other aspects as mentioned in the table. It is therefore suggested that, the stakeholders involved in disaster management should analyze all these aspects and take appropriate measures for better warning system about occurrence

of flood and cyclone.

Precautionary measures are always advisable for the management of disasters particularly flood and cyclone. Each affected family should have taken adequate precautionary measures for mitigation of the disasters. The data in (Table-5) reveal that majority of the respondents were always taking precautionary measures on safe storage of food grain(66.25%), collection and storing of cattle feed(57.50%), safe storage of valuable assets (56.25%), temporary shifting of domestic animals (53.76%) which are essential. Majority of the respondents were taking also precautionary measures sometimes on preserving ready to eat food materials (53.75%), preservation of safe drinking waters (55.00%) and safe storage of usable materials (58.75%). Mixed responses were obtained on collection of materials for temporary shed, collection of fuel for cooking food and collection of common medicines for health and hygienic purpose which are equally important. Taking mean score value and percentage of gap, it is suggested that the organizations working in the area have to convince the affected people for preserving safe drinking water, safe storage of usable materials, collection of materials for temporary shed and collection of common medicines for health and hygienic purpose as precautionary measures against flood and cyclone in addition to other measures taken by them.

Odisha State Disaster Management Agencies are working for both pre and post disaster management activities. Precautionary measures taken by the govt. reveal that (Table-6) majority of 58.75% of the respondents had stated for stocking food materials for people and domestic animals. Mixed responses were obtained on other aspects as mentioned in the table. Considering mean score value and gap percentage, it

Table 4: Extent of information on occurrence of flood and cyclone

S.No.	Information	Strongly agree (%)	Agree (%)	Disagree (%)	MeanScore	Gap (%)
1.	Sufficient information not given	60.00	36.25	3.75	2.56	14.67
2.	Not covering all the people	55.00	45.00	0.00	2.55	15.00
3.	No information about alternative measures	27.50	58.75	13.75	2.14	28.67
4.	Casual approach	30.00	52.50	17.50	2.13	29.00
5.	Insufficient planning for rehabilitation	58.75	30.00	11.25	2.48	17.33
6.	Insufficient attempt for ensuring food security	60.00	30.00	15.00	2.40	20.00

Table 5: Precautionary measures taken by the people.

S.No.	Measure	Always (%)	Sometimes (%)	Never (%)	Mean score	Gap (%)
1.	Safe strong of food grains	66.25	33.75	2.50	2.61	13.00
2.	Preserving ready to eat food materials	41.25	53.75	5.00	2.36	21.33
3.	Collection and storing of cattle feed	57.50	33.75	8.75	2.49	17.00
4.	Preservation of safe drinking water	27.50	55.00	17.50	2.10	30.00
5.	Safe storage of valuable usable materials.	13.75	58.75	35.00	1.94	35.33
6.	Safe storage of valuable assets.	56.25	41.25	2.50	2.54	15.33
7.	Temporary shifting of domestic animals	53.75	25.00	21.25	2.33	22.33
8.	Collection of materials for temporary shed	15.00	45.00	40.00	1.75	41.67
9.	Collection of fuel for cooking food	43.75	41.25	15.00	2.29	23.67
10.	Collection of common medicines	10.00	55.00	35.00	1.75	41.67

Table 6: Precautionary measures taken by Government.

S.No.	Measure	Always (%)	Sometimes (%)	Never (%)	Mean score	Gap (%)
1.	Safety place for rehabilitation	30.00	27.50	42.50	1.88	37.33
2.	Stocking food materials for people land domestic	58.75	30.00	11.25	2.48	17.33
3.	Stocking essential medicines	26.25	40.00	33.75	1.93	35.67
4.	Stocking material for temporary shed	30.00	38.75	31.25	1.99	33.67
5.	Arrangement for rescue	42.50	37.50	20.00	2.23	25.67
6.	Arrangement for health care	27.50	35.00	37.50	1.90	36.67

is suggested that the State Govt. should think favourably for stocking essential medicines both for people and domestic animals, arrangement for physicians for health care of people and domestic animals during disasters on immediately after disaster, stocking materials for temporary shed along with safety place for rehabilitation and well arrangements for temporary shifting before disaster as well as rescue operations during disaster.

Post disaster management is also essentially required for renovation and restoration of essential assets. It is reaction of the people towards post disaster management approaches taken by the State Govt. functionaries. It is observed from Table-7 that mixed responses were obtained towards various post disaster management approaches except vaccination to people and animals where 50.00% of the respondents opined

favourably. As significant percentage of gap observed, it is suggested that the state govt. need to further strengthen the approaches such as adequate supply of food materials, immediate restoration of transport and communication system, hygienic and sanitation measures and temporary shed for rehabilitation in the village to safe guard the assets of the people immediately after occurrence of flood and cyclone.

Socio-economic variables of the people many a times influence in increasing disaster management efficiency. It is observed from Table-8 that education, social participation, sources of information and annual family income influence the capabilities of the respondents in management of disasters. It is therefore suggested that timely and adequate information about occurrence of disasters, capacity building of the people on disaster management will definitely help the people

Table 7: Post disaster management support by Government

S.No.	Support	Always (%)	Sometimes (%)	Never (%)	Mean score	Gap (%)
1.	Vaccination to people and animals	50.00	37.50	12.50	2.38	20.67
2.	Adequate supply of food materials	43.75	45.00	11.25	2.33	22.33
3.	Immediate restoration of transport system	43.75	47.50	8.75	2.35	21.67
4.	Restoration of electricity and telephones	31.25	43.50	25.00	2.06	31.33
5.	Temporary shed for rehabilitation in the village	32.50	45.00	22.50	2.10	30.00
6.	Hygiene and sanitation measure	30.00	45.00	25.00	2.05	31.67

Table 8: Influence of Socio-economic variables on disaster management

S. No.	Variable	'r' value	't' value
1.	Age	0.180	1.616
2.	Education	0.381	3.632**
3.	Holding size	0.138	1.230
4.	Social participation	0.237	2.154*
5.	Sources of information	0.249	2.271*
6.	Annual family income	0.267	2.448*

**Significant at 0.01 level

*Significant at 0.05 level

in preparedness and mitigation of disasters.

The findings of the study conclude that, the people of the flood and cyclone affected area should inform the details of the disaster sufficiently ahead. The people must be made conscious towards preserving safe drinking water, usable assets, materials for temporary shed and common medicines in addition to other safety measures usually done by them. The govt. functionaries have to strengthen the precautionary measures towards selecting safety place for rehabilitation,

stocking essential medicines and arrangements for health care to both people and domestic animals, stocking materials for temporary shed and adequate arrangements for rescue and shifting affected people immediately. Besides, immediate action to be taken for restoration of transport and communication system, temporary shed for rehabilitation in the village to safe guard the assets by the affected people and taking all hygienic and sanitation measures. The people may be trained to develop their capability towards preparedness and mitigation measures.

References

- Gopal Krishnan, M and Kuberan, R. (2005). Community initiatives and adaptation practices for living with floods in some Asian Countries, Transactions of the 19th International congress on Irrigation and drainage, Beijing, China, Vol.1B, R6.02.
- Mukhopodhyay, S.P. and Das, K.K. (1992). Preparedness Status in disaster management study in West Bengal, Indian Journal of Public Health, 36(1): 15-20
- Satendra, (2003). Forestry and disaster mitigation, Indian Journal of rural Development, 22(2): 181-197.