

DISASTER MANAGEMENT: NEED FOR YOUTH PREPAREDNESS

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ABSTRACT

Almost every day disasters are striking several parts of the world. In India, 59 per cent of the land mass is susceptible to seismic hazard; 5 percent of the total geographical area is prone to floods; 8 percent of the total landmass is prone to cyclones; 70 per cent of the total cultivable area is vulnerable to drought. Apart from this the hilly regions are vulnerable to avalanches/ landslides/hailstorms/cloudbursts. In addition to this manmade hazards, which are frequent and cause huge damage to life and property. It is therefore important to have preparation to cope with the effect of disasters such as damage, disruption of assets, networks and social capital and casualties. Preparedness therefore encompasses those measures taken before a disaster event which are aimed at minimising loss of life, disruption of critical services and damage when the disaster occurs. Preparedness includes the formulation of viable emergency plans, the development of warning systems, the maintenance of inventories and the training of personnel. In this scenario we can involve India's potential force that is youth in disaster preparedness. But there is dearth of youth volunteers in disaster mitigation because of knowledge, attitude and behaviour deficit. Hence efforts are needed by educational institutions to develop knowledge on disaster management and climate change among the youth and also build attitude towards the importance of preparedness. Further the youth has to be equipped with the skills essential to participate in disaster management activities. In this connection the Universities through extension programmes, NCC, NSS, Nehru Yuva kendras, Red Cross societies, Boys and Scouts and NGOs etc has to train the youth volunteers to bring hazardous situation under control faster by systemic approach.

Introduction:

The regular occurrence of disasters both Natural and Man-made in Coastal Andhra Pradesh of India has had a series of repercussions on economy of the state and its development policies, political equilibrium and daily life of millions of people. Andhra Pradesh is battered by every kind of natural disaster: cyclones, floods, earthquakes and drought. The coastal region suffers repeated cyclone and floods. The 1977 cyclone and tidal wave which resulted in great loss of life, attracted the attention of the central and state Governments of India and the international donor communities as did those of 1979, 1990 and 1996. The floods in the Godavari and Krishna Rivers caused havoc in the East and West Godavari and Krishna districts. Earthquakes in the recent past have occurred along and off the Andhra Pradesh coast and in regions in the Godavari river valley. More than sixty cyclones have affected AP this century. The incidence of cyclones seems to have increased in the past decades to the extent that severe cyclones have become a common event occurring every two to three years, repeatedly and severely affecting the state's economy while challenging its financial and institutional resources. Almost 29 million people are vulnerable to cyclones and their effects in Coastal AP, 3.3 million of whom belong to communities located within 5 km from the seashore. Social and economic life of AP's population is characterized by recurring natural disasters.

About 44 percent of the state is vulnerable to tropical storms and related hazards. In India, the cyclones develop in the pre-monsoon (April to May) and post-monsoon seasons (October to December), but most of them tend to form in the month of November. Cyclones on the east coast originate in the Bay of Bengal, the Andaman Sea or the South China Sea and usually reach the coastline of Tamil Nadu, Andhra Pradesh, Odisha and West Bengal, which are the most vulnerable to these types of hazards. Along the Andhra coast, the section between Nizampatnam and Machilipatnam is the most prone to storm surges. Vulnerability to storm surges is not uniform along Indian coasts. According to the available disaster inventories, AP is the state that has suffered the most from the adverse effects of severe cyclones. It has been estimated that about 44 percent of AP's total territory is vulnerable to tropical storms and related hazards, while its coastal belt is likely to be the most vulnerable region in India to these natural phenomena. Five districts in Coastal AP, four districts in Rayalaseema are affected by monsoon floods and drought.

Andhra Pradesh with coastline of 1,030 K.Ms, is the second largest in the country next only to Gujarat State and the longest on the East Coast of India. The total coastal area spreads over 92,906 Sq. KMs. in nine coastal districts which have population of 2.87 Crores. There are 2,482 villages along the 0-20 KMs. wide coastline with a population of 54.33 lakhs. Of these 11.63 lakh live in 500 villages within a coastal belt

of 5 KMs. These people are the most vulnerable to the ravages of nature, particularly of cyclonic storms and tidal waves. On the morning of 26.12.2004 Tsunami tidal waves ranging from 2 to 6 metres high lashed the Andhra Pradesh coast. The major brunt of the tidal waves was along the coast of Nellore, Prakasam, Guntur, Krishna, East Godavari and West Godavari Districts. Many people on the beaches as well as close to the coast were washed away and otherwise affected. The tidal waters entered the villages along the coast inundating large number of villages.

Overview of Literature

Emphasize the need for effective coordination and communication mechanisms such as National Platforms on disaster risk reduction to bring together governments and different stakeholders at all levels towards resilience efforts and support the post- 2015 Hyogo framework implementation in particular by improving the coordination of work and knowledge on prevention and mitigation of hazards and disasters, increasing understanding of other stakeholders operating in the field ,better coordinated development and dissemination of knowledge, data, methods and experience and more effective use of resources within society. Civilians, private business and government and Support local level implementation and collaboration to prevent and mitigate disaster consequences.(EFDRR,2014)

In United States at the end of the 20th century, an estimated 66.5 million children each year were affected by a disaster (Penrose and Takaki, 2006) and this number will most likely increase, owing to shifts within society and large climate changes. Despite this vulnerability, however scant attention has been given to this particular population regarding emergency preparedness and planning. Both researchers and practitioners have traditionally overlooked children's needs and experiences in a disaster, along with their role in disaster preparedness education and training. If proper training is imparted to these children they will take care of disaster risk reduction activities for another 40-50 year during their life course. But scholars and professionals have failed to explore the importance of disaster education programs for youth and their particular impact and effectiveness on shaping children's perceptions of what to do in a disaster event. Therefore, it is important that programs that target the youth population are developed and that these programs cater to their specific needs while delineating what role they will play in disaster preparedness (National Commission on Children and Disasters, 2009). Since children spend so much time in school, the schools may be seen as the ideal setting for the dissemination of risk-based educational programs (Ronan and Johnston, 2003).

Now -a-days schools, colleges have included environment educational components in their curriculum with special focus on climate change, environmental protection and less emphasis is on disaster management to impart knowledge. But knowledge is not enough in disaster preparedness. Developing appropriate knowledge, attitude, skills and effective implementation is needed. School-integrated injury prevention and disaster preparedness curricula and programs should be considered a principal strategy for long-term instruction and behavior change. Materials should be well written at the age appropriate and should be disseminated through various means of print and electronic media. Hands-on, experiential learning is also another effective way to reach and engage children better (Peek, 2008).In France, disaster education has four main goals: (1) teaching students preventive and protective measures against major risks in a daily life context; (2) informing students of different types of rescue services; (3) teaching students basic survival steps while waiting for organized rescue; and (4) encouraging students to develop civic-minded behavior and sense of individual and collective responsibility (United Nations, 2007).

Local communities play a major role in terms of providing support, encouraging participation in training and education programs and raising overall awareness of proper preparedness protocol and procedures. Participation of communities in developing a disaster preparedness and mitigation system can be helpful in determining a community's resources, capabilities, coping mechanisms and facilities (Newport and Jawahar, 2003). Use a graduated sequence of learning across school years by starting with basic messages and incorporate all phases of emergency management: preparedness, mitigation, response and recovery. Practice preparedness responses using in- and out-of-class simulations and through experiential exercises. Research shows that mock scenarios should test children's skill levels and reinforce those skills. When joined with appropriate feedback, repeated practice of the desired skills will help develop the self-confidence necessary to ultimately change a child's behavior. Promote youth education programs throughout the community via partnerships, to increase community-based preparedness discussions and activities. Promote outreach through media, parent-teacher groups, emergency management agencies, community and neighborhood groups, boys and girls programs and local businesses and engage with other readiness-based efforts.

Increasingly, disasters are affecting large geographical areas that contain diverse populations who experience their aftermath in different ways. Social work case managers can play a critical role in assisting communities to plan and organize around issues of diversity in disaster relief and recovery. Using mixed methods this study examines disaster recovery case management reported shortcomings in agency preparation, a lack of understanding of ethnic intra group differences and challenges when working with elderly and disabled clients to find out the scope for social work disaster case managers in developing methods for gaining awareness of diverse populations within their service areas. Implications for future training and preparation of youth and social workers as volunteers with appropriate training.

The National Disaster Management Framework drawn up by the Ministry of Home Affairs envisages association of youth organizations in disaster management activities and its inclusion in their training programmes as well as in their regular activities. (News letter, Ministry of Home affairs) Youth face particular risks in disaster situations. However, substantial benefits can be reaped from empowering and educating youth with regards to disaster preparedness and response. This National Strategy seeks to couple national attention on emergency and disaster preparedness with community action that focuses specifically on youth readiness for disasters and related events. Organizations that focus on youth are encouraged to read this National Strategy, determine what role they can play in furthering a community of prepared youth and affirm the National Strategy. (The National Strategy for Youth Preparedness Education Empowering, Educating And Building Resilience , FEMA & American Red Cross)

*Taking into account the experience gained through the implementation of the **Hyogo Framework for Action** and in pursuance of the expected outcome and goal, there is a need for focused action within and across sectors by States at local, national, regional and global levels in the following four priority areas:*

Priority 1: *Understanding disaster risk.*

Priority 2: *Strengthening disaster risk governance to manage disaster risk.*

Priority 3: *Investing in disaster risk reduction for resilience.*

Priority 4: *Enhancing disaster preparedness for effective response and to “Build Back Better” in recovery, rehabilitation and reconstruction.*

The steady growth of disaster risk, including the increase of people and assets exposure combined with the lessons learned from past disasters indicates the need to further strengthen disaster preparedness for response, take action in anticipation of events, integrate disaster risk reduction in response preparedness and ensure that capacities are in place for effective response and recovery at all levels. The guidelines suggest regarding priority 4 of Sendai report

- *To establish community centres for the promotion of public awareness and the stockpiling of necessary materials to implement rescue and relief activities;*
- *To adopt public policies and actions that support the role of public service workers to establish or strengthen coordination and funding mechanisms and procedures for relief assistance and plan and prepare for post-disaster recovery and reconstruction;*
- *To train the existing workforce and voluntary workers in disaster response and strengthen technical and logistical capacities to ensure better response in emergencies;*
- *Children and youth are agents of change and should be given the space and modalities to contribute to disaster risk reduction in accordance with legislation, national practice and educational curricula (Sendai Framework for Disaster Risk Reduction 2015-2030)*

Methodology

Recognizing the need for research to evaluate the current state of disaster preparedness education and research regarding involvement of youth and children in disaster emergency management activities by the government and NGOs and review of the literature related to emergency preparedness education for youth is the focal theme of the paper.

Objectives: The objectives of the study are as follows

- To understand the socio-economic and demographic characteristics of the respondents i.e. youth.
- To assess the respondents knowledge on disaster mitigation and management,
- to find out respondents opinion on Information dissemination by different agencies regarding disaster mitigation and management,
- to elicit youth opinion on the need for youth volunteers preparedness training on disaster mitigation and management to disaster risk reduction.

Hypothesis:

- There is significant age difference with regard to awareness on disaster mitigation and management
- There is significant difference with regard to awareness on disaster mitigation and management among different educational groups.

Study area: The study is intended to be undertaken in a select district of Andhra Pradesh state i.e. Nellore. The Nellore district consists of Five revenue divisions namely Kavali, Nellore ,Gudur , Nayudupeta and Atmakur with 46 mandals. Off this 71 villages of 12 coastal mandals are affected by tsunami ,cyclones , floods etc. These mandal are Kavali -4 villages , Bogolu -5 , Allur-4, Vidavaluru- 11, Indukur peta -4, TP Gudur - 6, Muthukur- 5 ,Kota- 5, Vakadu -14 , Sulluru peta-4, and in Tada-9 villages are prone to cyclones ,floods etc. All the reaming mandals of the district are prone to climate change due to power plants like NCCPPL, TPCIL, Meenakshi energy Ltd, KPCIL, Coastal Andhra Power Corporation etc, located at Krishnapatam port etc. Drought in some mandals are very common, fire accidents etc also occur some times as more industries are coming up in Nellore district. First the researcher has identified disaster prone risk areas as mentioned above (71 villages) , by using simple random sampling method 5 villages were identified and the youth residing in that particular communities and collected information of their understanding on disaster management and then find out the scope for youth volunteers preparedness .

Sampling: The total population of the district as per 2011 population census is 29.64 lakhs. Among them 10,38,557 are in the age group of 15 -34 years constituting 36.56 percent of total population.(Hand book of 2013-2015,SPS Nellore). First the researcher has identified 5 villages i.e. namely Vakadu, Vidavaluru ,TP Gudur, Muthukur, Kavali are disaster prone as mentioned above (71 villages) by using simple random sampling method. Then from each place 80 youth were identified from degree colleges and explained the study objectives and sought their cooperation. The study sample comprises of 400 youth selected through stratified random sampling method who are residing in 5 select areas namely Vakadu, Vidavaluru ,TP Gudur , Muthukur and Kavali .

Data Collection: Interview schedule and focus group discussions were used to gather information regarding the objectives with prior information. The schedule included questions to assess youth knowledge and skills with regard to disaster management. The researcher explained the study objectives and sought cooperation of the selected sample. Focus group discussions were conducted to elicit information of their understanding on disaster management and found the scope for youth volunteers preparedness.

Data Analysis: The collected data was analysed by SPSS 16.00 package .The collected data has been analyzed by using certain well established statistical techniques such as the following: Percentages, mean, median, standard deviation have been calculated . Comparison of mean scores with respect to respondents knowledge and socio-economic variables by using 't' test and ANOVA.

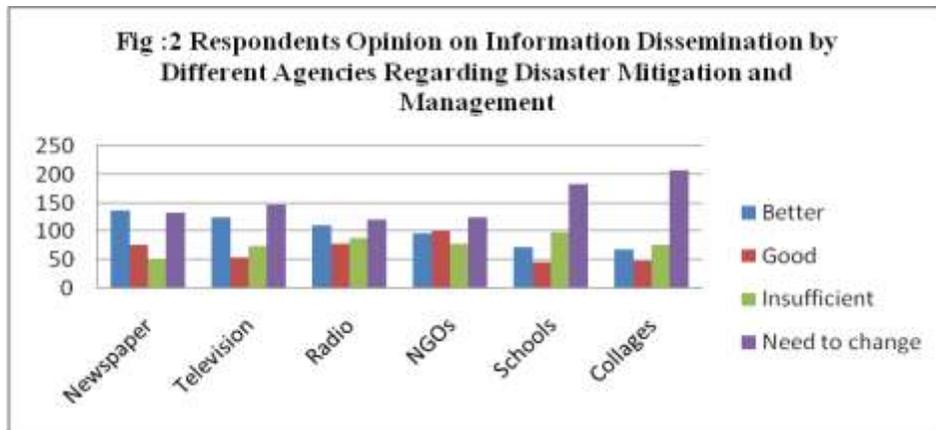
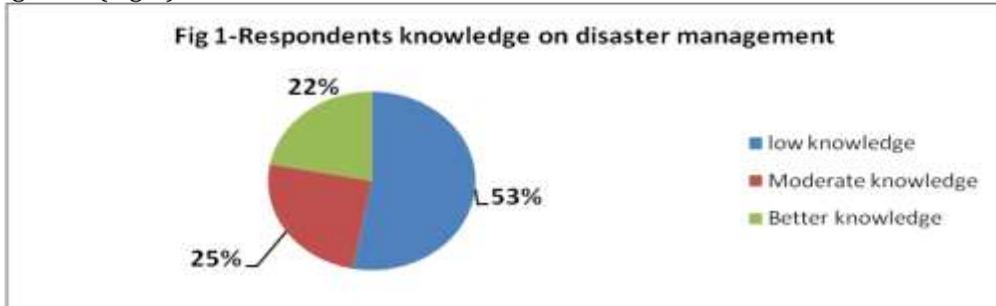
Results: Table 1 : Socio-Economic and Demographic Characteristics of the Respondents

S.NO	Characteristics	Majority Percentages
1	Sex	56 % male 44% female
2	Age	84 % in 15-20 years age group
3	Religion	72% Hindu
4	Caste	74% belonged to Scheduled community
5	Type of Family	69% were from nuclear family.
6	Education	84% perusing degree
7	Income	86% are not having any income at present
8	Family Income	80 % with Rs3000-Rs4000 monthly income
9	Staying	88% are staying with family
10	Type of house	79% are staying in semi structured houses

Demographic and socio-economic characteristics of them are very important to understand the knowledge of the respondents. Table no 1, reveals that a majority i.e. 64 percent of the respondents was in the age group of 15-20 years , 56 percent of the respondents are male the remaining 44 percent of the respondent are female . Results show that nearly three fourths of the respondents 72percent belong to SC community and the same percentage were Hindus .The table also reveals a majority 71 percent were

currently unmarried and pursuing degree education. 84percent not having any income of their own. Regarding family income majority of respondents 80 percent are with Rs 3,000-Rs4,000 monthly income.

Respondents knowledge about disaster mitigation and management: Regarding respondents knowledge the results revealed that a little above half are having low knowledge followed by 25 percent moderate knowledge and 22 percent are having better knowledge regarding disasters and its mitigation and management(Fig-1)



Regarding respondents opinion on information dissemination on disaster mitigation and management, the study revealed that most of the youth are with opinion that the media agencies has to change their approach of information dissemination with regard to disaster mitigation and management. Further the study revealed that the present status of information dissemination better with regard to newspaper.(Fig-2)

Table No: 2 Age wise distribution of respondents with regarding to their awareness on disaster management.

Variable	Age	N	Mean	SD	T	P-value	Result
Awareness on Disaster management	15-20	338	22.9024	2.3199	1.5816	0.1145	Not significant**
	21-35	62	22.4032	2.0761			

**not significant

Further the results from table no 2 revealed that the mean scores of youth awareness on disaster management with regard to age groups does not differ significantly($t= 1.5816, P> 0.05$).So, we reject the hypothesis and it is found that ‘the respondents awareness on disaster management does not get affected by their age’.

No: 3 Education group wise distribution of respondents with regarding to their awareness on disaster management.

Variable	Education	N	Mean	SD	Mean Square	F-value	P-value
Awareness on Disaster Management	Arts	23	20.5217	1.3774	147.6691	35.5107	0.000*
	Commerce	90	21.3778	1.8758			
	B Sc (Maths)	160	23.2563	2.2854			
	B Sc (Sciences)	127	23.7244	1.9135			

It is clear from Table No.3 that, a high mean score for awareness on disaster management (23.7244) is found in the case of B.Sc (Science) graduation students . The mean scores of disaster management differ significantly at 1 percent level for different educational group of students ($t= 35.5107$, $P < 0.01$). So, the results prove the hypothesis that the awareness on disaster management of the respondents varies with their educational group wise. It is observed that education provides more awareness on disaster management.

Conclusion: There is dearth of youth volunteers in disaster mitigation because of knowledge, attitude and behaviour deficit. Hence efforts are needed by educational institutions to develop knowledge on disaster management and climate change among the youth and also build attitude towards the importance of preparedness. Further the youth has to be equipped with the skills essential to participate in disaster management activities .In this connection the Universities through extension programmes, NCC, NSS, Nehru Yuva kendras, Red Cross societies, Boys and Scouts and NGOs etc has to train the youth volunteers to bring hazardous situation under control faster by systematic approach. Further there is a need to establish a **Disaster Mitigation and Management Cell** to monitor and coordinate line departments . Further this centres must be equipped with all infrastructure to provide simulative training to youth volunteers in disaster management .

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