Role of Youth in
Community Based Disaster Management

Proceedings of National Conference

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Editors

Dr. J. Henry Rozario

Dr. K. Gireesan

Organized by

P.G. & Research Dept. Of Social Work, Sacred Heart College (Autonomous)

(Affiliated to Thiruvalluvar University, Reaccredited by NAAC with 'A' Grade)

Tirupattur -635 601, Vellore Dt, Tamil Nadu

In Collaboration with

Rajiv Gandhi National Institute of Youth Development

(Deemed-to-be-University u/s 3 of the UGC Act, 1956)

Ministry of Youth Affairs & Sports, Govt. of India

Sriperumbudur – 602 105, Tamil Nadu

About Department of Social Work, Sacred Heart College

P.G. & Research Department of Social Work, (DSWSHC) was established in 1979 as the first Post Graduate Department of Sacred Heart College, Tirupattur, which is an affiliated first grade college of Tiruvalluvar University, Vellore Dt. The department is offering Masters Degree in Social Work with Community Development, Human Resource Management and Youth Development specializations. The department is offering Ph.D and M.Phil programmes.

Research, Extension Projects and Training

With a view to evolve effective models of Social Work, the department focuses on rural development and youth work and has initiated many extension projects which cater to the needs of the people in and around Tirupattur Town. It has undertaken major research and evaluation studies for Central and State Governments of India and for global and national Civil Societies. The department has organized and conducted many international and national level workshops and training courses with the view to enhance the competencies of the professionals involved in Social Work.

About Rajiv Gandhi National Institute of Youth Development

Rajiv Gandhi National Institute of Youth Development (RGNIYD) is an autonomous organisation of the Ministry of Youth Affairs and Sports, Government of India, establihsed in 1993 at Sriperumbudur. RGNIYD became a Deemed-to-be University in 2008 and offers unique and innovative M.A. programmes in Youth Empowerment, Career Counselling, Gender Studies, Local Governance and Life Skills Education. RGNIYD offers inter-disciplinary doctoral programmes in the abovementioned areas from 2011.

As the apex national agency for youth development, RGNIYD is striving to develop into a globally recognised and acclaimed centre of academic excellence in the field of youth development, fully responsive to the national agenda for inclusive growth, and the needs and aspirations of young people of the country to realise their potentitals to create a just society. RGNIYD functions as a vital resource centre coordinating training, research, orientation, extension, documentation and dissemination activities for the development of the youth of the country.

Preface

India has been vulnerable to natural disasters on account of its unique geo-climatic conditions. Cyclones, droughts, earthquakes, floods, and landslides have been recurring in this country at regular intervals. Because of the large geographical size, our country faces several natural hazards happening in different parts. Besides natural disasters, our country has witnessed disasters caused by human beings like chemical disasters, epidemics, ethnic conflicts, riots, terrorist attacks, etc. The frequency, magnitude and the area of disaster has been varied and no specific pattern could be found in many cases, which makes it even more critical. And at times, some areas normally subjected to drought situation in a year, have got flooded in the subsequent year. Disasters take a large toll due to poor governance, absence of early warning system, lack of trained personnel, inadequate support systems, absence of facilities, etc.

Disaster Management has become a major concern of Government in this globalised era. It has been proved beyond doubt that governments at different levels need to focus more on disaster prevention, preparedness and disaster response rather than the rehabilitation and reconstruction, in view of the cost involved for the latter. At the same time, the efforts of governments will go in vain if there is no adequate response, involvement and participation of other stakeholders like   Non-Governmental Organisations, Self Help Groups, Youth Organisations, and other Community Based Organisations. Disaster Management is one such area which requires the participation of the community members in effectively mitigating and managing the impact of disaster. And, Community Based Disaster Management can be viewed as an approach that ensures active response, involvement and participation of local community in planning, decision making, and operationalisation of various activities in disaster management. And it is imperative to raise awareness and capacity building of the local community in addressing disaster situations.

Local Governments have an important role by virtue of its constitutional mandate for local leadership in its functional area and are expected to play an important role by taking all possible efforts through different phases of disaster management. They have a unique responsibility of mobilising, supporting and co-ordinating the efforts of government departments, non-government organizations and other stakeholders. It is noted that 'there is no better political institution than the local government to understand the social vulnerability of natural and human-made disasters, and to address the differential impacts of disasters on men, women, children, the sick, the elderly and differently abled'.

Youth constitute an invaluable human resource of a nation. They are physically strong, mentally agile, and look for change and dynamism in their own life and in the life of the community they live. They embody power and strength. They are idealistic, and accept new ideas and views without much hesitation. They are also impulsive, and in this way, generate necessary power to carry out what they consider as important to themselves and the society. Their dynamism, energy level, pace of work, innovative ideas and approaches, leadership qualities, etc. need to be properly channelized into socially useful and constructive activities. And youth, in whatever capacity, have an important role to perform in disaster management. In this context, 'National Conference on Role of Youth in Community Based Disaster Management' was organised. It was a joint effort of Rajiv Gandhi National Institute of Youth Development, Sriperumbudur and Sacred Heart College (Autonomous), Tiruppattur. The presentations and discussions during the two-day Conference are being documented here.

The proceedings of the Conference contains nineteen papers, out of which some of them are conceptual, some are with a practical orientation, and the rest based on field experiences. The document is expected to highlight the role of youth in collaboration with governments and other local institutions

and community based organisations in disaster management. It is aimed at generating, documenting and disseminating workable and practical solutions for mobilising and co-ordinating the efforts of communities towards meeting any eventualities.
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Suresh Mariaselvam indicates the public health issues during disasters and emphasizes the need for community based health care monitoring. The author emphasises that collection of data through a systematic risk assessment, continuous monitoring of services, disseminating and communicating the risk information, and empowering the community with response capacity are the pre-requisites for effective public health management during emergencies.

Sandra Joseph reviews the need, importance and contribution of youth in disaster relief, rehabilitation, preparedness and response. The paper documents the efforts made by Stella Maris College through their 'Sangamam' project during the Tsunami at the eastern coastal lines of the country.

Henry Rozario, recognising the potential of youth, points out that disaster management is one such area which requires active participation of the community members to effectively mitigate and manage the impact of disaster. The paper vividly illustrates the role of youth volunteers in four phases of disaster management like disaster preparedness, rescue, relief and rehabilitation.

Sojan Augustine highlights the role of youth as social capital in disaster management. He views that trust, understanding, reciprocity and networking among the youth will be very useful to manage disasters.

Gireesan examines the role of local government institutions in disaster management, and indicate the functions to be performed by them during the different phases. The author argues that local governments are in a better position to understand the social vulnerability of natural and human-made disasters. He advocates that the local governments need to assume responsibility for ensuring   better co-ordination and convergence among the government institutions, non-governmental agencies, community based organisations and other stakeholders during disaster situations.

Hiranniya Kalesh brings out the details regarding the scope of local governments for addressing disasters from Andhra Pradesh, Bihar, Kerala, Gujarat, Odisha, Tamil Nadu and Uttarkhand. His paper gives a comparative profile of disaster management system prevalent in the selected States.

Sharing of experiences gathered by various NGOs during disaster management have been made out in three papers. **Rex Joshwa and Karthigeyan** highlights the approaches and activities undertaken by Restless Development India, based on their experiences from a micro level intervention at Kancheepuram District, Tamil Nadu during the Tsunami. **Amala Jeya Rayan and Casimir Raj** shares their experiences about the Tsunami relief and rehabilitation measures through Don Bosco Anbu Illam at Nagapattinam District. This paper describes the different strategies and practices adopted by the organisation, with focus on youth-oriented programmes. **Eugine** provides a detail illustration by the Jesuit Tsunami Service during the different phases of disaster management at Nagapattinam District. The author portrays the specific care taken for youth population to rebuild their lives in the reconstruction phase.

Suresh gives certain practical tips about saving a life in an emergency situation, with special reference to the context of road accidents. The right procedure for giving first aid to a person of head injury, steps for carrying out Cardio Pulmonary Resuscitation (CPR), and tips for road safety have been described by the author, which are quite handy.

Ganapathy introduces the fundamental aspects about disaster management. The paper also includes the different types of disasters in the Indian context and zone-wise information across the country, which are quite informative.

Satheesh Kumar and Krishnamoorthy discuss about an inter-disciplinary approach of coastal disaster management on the impact of Tsunami. They discuss several steps to map Tsunami water inundation areas using differential Global Positioning System (dGPS) and other tools. The paper makes an assessment of the socio-economic status of the coastal community, which are quite relevant during the reconstruction phase.

Rose Mary and Christopher emphasise the importance of community participation in disaster management and provide an illustration of the activities that could be undertaken in different phases. The authors conclude that capacity of the community has to be increased by their preparedness, knowledge and awareness on the disaster and mitigation, and the strategies to encounter the situations.

Asokan and Thasian highlight the need for a specific disaster management cell at the district level managed by NGO. They suggest that the planning commission may set aside certain percentage of resources which can be used at the district level for the disaster prevention and preparedness.

Selvam illustrates the roles and responsibilities of different stakeholders during disaster management. He also brings out the different methods of dissemination that can be used during the community based approaches for disaster.

Christi Anandan discusses the role of the community Task Force Committees (TFC) in community based disaster management. He views that TFCs can sustain the efforts of awareness and disaster education among the communities. The paper highlights the need for capacity building of TFCs with the skills of vulnerability analyses, disaster response and mock operations of rescue and relief.

Paul Raj focuses the role of social workers during different phases of disaster management cycle. The author highlights that willingness to work hard, readiness to work in trying circumstances, and high level of tolerance are some of the significant attributes for a professional social worker.

Jonas Richard and Mary Delphine make an attempt to view how disaster management education can be effectively imparted by incorporating the social work education methods. The authors express their confidence that by incorporating various methods of social work practice in disaster management education, more professionals with a human heart could be developed.

Arockia Raj highlights the need for emotional intelligence for leaders in disaster management. The author point towards the need for providing training to the leaders by applying emotional intelligence in their work which would definitely enhance their capacity to address the disaster situations.

We may not be able to avert disasters, but let us be better equipped to face and get over them. And we believe that this document will add to the body of knowledge on disaster management, and will enhance the capacity of all stakeholders to address the situations, more effectively and efficiently.

Dr. J. Henry Rozario
Dr. K Gireesan

ACKNOWLEDGEMENTS

Many individuals have immensely contributed to the successful conduct of the National Conference – 'Role of Youth in Community based Disaster Management'. We would like to acknowledge their role and contribution and thank them.

We wish to express our deepest appreciation to Shri. P. Michael Vetha Siromoni IAS, Director & Vice Chancellor, Rajiv Gandhi National Institute of Youth Development (RGNIYD), Deemed University, Ministry of Youth Affairs & Sports, Govt. of India. He not only gave his consent for RGNIYD to be the collaborating partner of the national conference but also gave all the necessary support for the conference. It is at his insistence the conference had mock drill by NDRF, practical sessions on CPR and first aid and a model district disaster management plan. He stressed the fact that the conference should go beyond its academic objective and provide hands on experience and skills to participants to play an active role in a disaster situation.

We acknowledge the collaboration extended by the faculty members and around 30 students of RGNIYD who enriched the conference by their participation and contribution in terms of presenting papers and posters.

We are extremely grateful to Rev. Dr. A. Maria Soosai, SDB, Principal, Sacred Heart College (Autonomous) who was the brain behind the national conference. He was particular that the Department must conduct a conference at the national level and gave permission to make use of the infrastructures of the college to host the conference. We especially thank Rev. Fr. K.M. Jose SDB, the Secretary of the college who monitors and encourages every effort taken by the department towards academic excellence. He continually motivates the department to take up to research, consultancy and training in higher education besides teaching.

It is with pride we thank all the faculty members and students of the Department of Social Work, Sacred Heart College who took upon themselves the challenge of organizing the national conference. They organized themselves into various committees -Reception & Hospitality, Accommodation, Food, Hall Arrangement, Ceremonial & Valedictory, Media & Public Relations, Documentation, Finance, Cultural & Mock Drill – and rendered the services ably led by the Association office bearers of the Department of Social Work. The national conference was attended by nearly 200 participants from 20 institutions all over the country.

We are grateful to Dr. K. Shekar, Professor, Department of Psychiatric Social Work, National Institute of Mental Health & Neuro Sciences (NIMHANS), Deemed University, Bengaluru who delivered the Keynote address of the conference. We take this opportunity to thank Dr. R. Parthasarathy Prof. & Head of Psychiatric Social Work, NIMHANS who spoke on the theme "Disaster Management – Rehabilitation and Reconstruction". NIMHANS is the nodal centre for psychosocial support and mental health services in disaster as declared by the Ministry of Health and Family Welfare, Government of India.

We are indebted to Dr. C. Jayakumar, Senior Specialist, Psychosocial Support and Mental Health Services, National Disaster Management Authority (NDMA), Govt. of India, New Delhi who delivered the Valedictory address on the theme 'Paradigm Shift in Disaster Management in India'. He came all the way from Delhi to grace the occasion and highlighted the landmark interventions of the Central and State governments in the field of disaster management with special reference to the role of NDMA.

Our sincere thanks go to Shri. P.S.B. Nair, Sr. Commandant 04 Battalion of the National Disaster Response Force (NDRF), Arakkonam, Ministry of Home Affairs, Govt. of India who sent the team of 24 trained personnel to conduct the mock drill during the conference. The team brought all the latest equipments used in different types of disasters including the nuclear, biological and chemical disasters. The 108 TN Ambulance team of Tirupattur also joined them and both did a joint mock drill on rescuing and giving first aid to people involved in various disaster situations. The exhibition and mock drill conducted in 2 shifts from morning 10 to 5 PM on 5th March was attended by nearly 2300 college students and 2000 school students and around 200 Self Help Group women of the town.

We do thank Mr.T.N. Suresh, Trainer, St. John's Ambulance, Hosur, who demonstrated and trained participants in giving CPR (Cardio Pulmonary Resuscitation) and first aid to road accident victims in an emergency situation. We thank in a special way Smt. R. Pathmavathee IFS, Dt. Forest Officer who enabled participants to prepare a model District Disaster Management Action Plan incorporating the role of community in it.

We are glad that the conference enabled hands on experience and skill to the youth to play their role in a disaster situation as envisaged by the central theme of the conference – Role of Youth in Community Based Disaster Management.

We are grateful to all the contributors for their scientific contribution in the conference and in this publication. This book is a product of their experience in the field of disaster management and their commitment to pass on that experience to others by taking their time to write and publish.

Finally and most importantly we thank all the participants comprising students, faculty members and resource persons from nearly 20 institutions nationwide who participated in the conference and contributed to its successful outcome. It is for them the conference was intended and they responded by their overwhelming presence and active participation in academic sessions, group discussions, practical demonstrations and cultural events. We thank in a big way the heads of these institutions who permitted their members to participate.

The list of the institutions who attended the conference is presented at the final page of this publication.

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PUBLIC HEALTH MANAGEMENT DURING EMERGENCIES

Suresh Mariaselvam

Introduction

The disasters affect all parts of the globe and cause harm to the people, property, infrastructure and environment. India has traditionally been vulnerable to natural disasters on account of its unique geo-climatic conditions. It has been affected by Flood, droughts, earthquakes, cyclone, tsunami and landslide in the last 10 years. Some of these have affected large geographic regions of the country besides displacing and killing thousands of the people. Latur (1993) and Bhuj (2001) earthquakes, Orissa cyclone (1999) and Indian Ocean Tsunami (2004) are well known disasters.

Internationally, after carefully scrutinizing the disaster occurrence and the situation aftermath it was recognized that all the development and progress is incomplete until the devastation caused by disasters is reduced or prevented. Investment in mitigation and preparedness would be more cost effective in managing disasters than expenditure on relief and rehabilitation.

The paradigm shift in Disaster Risk management

The term 'disaster management' encompasses the complete realm of disaster-related activities. Traditionally, people tend to think of disaster management only in terms of the post-disaster actions taken by relief and reconstruction officials; yet disaster management covers a much broader scope, and many disaster managers may find themselves far more involved in pre-disaster activities than in post-disaster response. This is due to the paradigm shift from 'relief centric' to 'preparedness centric' approach based on the experiences and lessons learned from the past disasters across the globe. Disaster Risk Management is a continuous and integrated process of planning, organizing, coordinating and implementing measures, which are necessary for-

- Prevention of danger or a threat of any disaster,
- Mitigation or reduction of risk of any disaster or its severity or consequences,
- Capacity building,
- Preparedness to deal with any disaster,
- Prompt response to any threatening disaster situation or disaster,
- Assessing the severity or magnitude of effects of any disaster,
- Evacuation, rescue and providing relief measures,
- Rehabilitation and reconstruction.

The Indian Ocean tsunami operation was an opportunity to learn, particularly in terms of temporary shelter and provision of health services to the affected. Recovery planning must start at the earliest possible time during the relief phase. Five lessons learnt from recovery phase are –

1. It is possible to reduce loss of life and property through preparedness.
2. Preparedness is necessary at every level – national, provincial, local and community.
3. Preparedness is necessary in every sector such as infrastructure, health, education, children, livelihood specially fisheries and agriculture, environment, ICT, Social equity, etc.

4. Pre-Disaster Recovery Planning to ensure better co-ordination among stakeholders serve in various sectors at different levels.
5. Such planning needs to be formalized in the form of manuals and Standard Operating Procedures so that there is no confusion during and after disasters.

There are some universal basic principles to manage the relief and recovery phase. This could be referred while preparing the mitigation and preparedness plans as well as community-based pre-disaster recovery plan-

1. *Holistic* - it covers housing, infrastructure, education, livelihood, health, psycho-social care, etc.
2. *Long term* - providing livelihood support including development of skill, provisioning of credit and marketing support, etc.
3. *'Build back better'* - ensuring that the houses and infrastructure constructed after disasters withstand the hazards and risks of nature and the hazards do not become disasters again.
4. *Sustainable* - integrating environmental issues such as regeneration of mangroves, conservation of water, climate change adaptation, etc.
5. *Inclusive* - caring for poor and vulnerable - women, children, aged, physically and mentally challenged people.

New initiatives after Tsunami based on Disaster Management policy

Ministry of Home Affairs is the nodal Ministry of Government of India for disaster management. The Ministry piloted the Disaster Management Act 2005, which has provided legal and institutional framework for disaster management in the country. This will have the advantage that it will permit the States also to have their own legislation on disaster management. National and State level Executive Committees are formed to lay the roadmap, plan and monitor the disaster related activities. Keeping the Disaster management Act 2005 as a guideline, the National Policy on Disaster Management framework has been finalized and implemented.

Institutional framework at National (National Disaster Management Authority), State (State Disaster Management Authority), District (District Disaster Management Authority) and PRI levels have been established. Institutions like National Institute of Disaster management (NIDM) and National Disaster Response Force (NDRF) have also been established to support the legal bodies.

Early Warning systems have been developed especially for Tsunami using the Information Communication Technology. Emergency Operation Centres at National, State and District headquarters have been set up to collect, gather and analyse the risk and vulnerability information, coordinate with the stakeholders and share the disaster related resources.

The main features of National Policy on Disaster Management

- Drafted in tune with National Vision 'to build a safe and disaster-resilient India' by developing a holistic, pro-active, multi-disaster and technology-driven strategy for disaster risk management.
- The goal will be achieved through a culture of prevention, mitigation and preparedness to generate a prompt and efficient response at the time of disasters.
- The entire process will centre-stage the community and will provide momentum and sustenance through the collective efforts of all government agencies and NGOs'.

Ministry of Health and Family Welfare is responsible for handling health issues during emergencies and in this regard, the main activities of the ministry are –

- Formulation of policy guidelines, Health Sector Disaster Management planning,
- Capacity building in the health sector for disaster prevention, mitigation, preparedness, response and early rehabilitation.
- Nodal ministry for biological disasters and playing a supportive role for all other disasters.
- Advisory to State Governments and providing advocacy for health in other sectors.
- Inclusion of disaster reduction/ mitigation measures in health related development activities.

Consequences of Disasters on Health Services

The sudden occurrence of disasters can disrupt health services either directly or indirectly, making it difficult for the existing health system to cope up with the situation. Major disasters often cause large populations to move to areas where health services are ill-prepared to cope with additional demands. This may increase their risk of illness and death. Different health problems tend to arise at different times following a disaster. Severe injuries requiring immediate care are frequently limited to the time and onset of the disaster. Thereafter, major outbreaks of communicable diseases may occur, particularly where there is overcrowding and poor sanitation.

Strength of Present Health System to Handle Disaster Scenario

Institutional frame work for policy, planning and co-ordination has open avenues to study the situation and prepare policy guidelines and manuals on health interventions for pre and post-disaster phases. Centers of excellence and extensive health infrastructure are promoted to conduct various specialized research and trainings for health officials and workers at various levels. The quality of Health Sector Human Resource is improved and all staff in the critical area is sensitized about the risk and vulnerability and capacity analysis. The public health response during the recent disasters is very robust and improved. National Surveillance Programme has developed guidelines and built indicators to monitor the health services. After the Tsunami, hazard-prone health facilities are established at critical locations with adequate facilities. Civil Society organizations and International donors provide a good support in keeping the standards of the infrastructure and health services during emergency situations.

Health Issues during Emergencies and the Remedies

1. **Environment that affects health during Disasters**
   - Vector borne diseases - Enabling environment for mosquito breeding due to water collections
   - Water borne diseases - Contaminated water and poor sanitation
   - Zoonotic disease - Displacement of animals from habitats
   - Droplet infections - Adverse conditions of living and overcrowding in temporary shelters
   - Contact diseases - Lack of personal hygiene and overcrowding especially in relief camps / temporary shelters

2. **Common Health issues after a Disaster**
   - Appropriate handling of the dead
   - Injury and disability

- Water and environmental sanitation
- Communicable diseases
- Reproductive and child health issues
- Psycho-social impact
- Sustaining key health care delivery functions, including medicines and critical medical supplies
- Immunization, chemo-prophylaxis

3. **Caring for Health needs during disasters-Expected risks of communicable diseases**
   - Acute watery diarrhea (suspect cholera) / Acute diarrhea / Acute bloody diarrhea
   - Malaria / dengue fever
   - Acute Jaundice syndrome
   - Suspected meningitis
   - Acute Lower Respiratory Infection
   - Suspected measles
   - Fever of unknown origins
   - Suspected malaria
   - Acute hemorrhagic fever
   - Unknown diseases occurring in a cluster

4. **Principles of Primary healthcare**
   - Equity - Services should be physically, socially, and financially accessible to everyone.
   - Community Participation — In addition to the health sector, families and communities need to get actively involved in taking care of their own health.
   - Inter-Sectoral Approach — PHC requires a coordinated effort with other health-related sectors whose activities impact on health e.g., agriculture, water and sanitation, transportation, education, etc.
   - Appropriate Methods— An increasing complexity in health care methods should be observed upward in the PHC pyramid. Care-givers should be trained to deliver services using the most appropriate and cost-effective methods and equipment for their level of care.
   - Health Promotion and Prevention — PHC requires a comprehensive approach that is based on the following interventions:
     - Promotive — addresses basic causes of ill-health at the level of society.
     - Preventive — reduces the incidence of disease by addressing the immediate and underlying causes at the individual level.
     - Curative — reduces the prevalence of disease by stopping the progression of disease among the sick.
     - Rehabilitative — reduces the long-term effects or complications of a health problem.

5. **Health preparedness during Disasters**
   - Impact on- Public Health and health related services and infrastructure to be assessed
   - Hazard-specific impact which can be anticipated
     - Trauma: Earthquake, Tsunami, Landslides, Avalanche, Flash flood; conventional war; terror strikes; nuclear warfare; Road/ rail/ air accidents
     - Burns: Fire [forest fire, community fire]; Fire following earthquake, Chemical injuries; terror strikes; nuclear warfare; lightning strike
     - Asphyxia: Chemical (industrial, terror, warfare); stampede

- – Drowning: (Floods, Flash floods);
- – Snake Bite: Floods
- – Electric shock: Floods, cyclone, Tsunami, Earthquake
- Causes of illness or death occurred during the past disasters
- Anticipated threats in the future keeping the present socio, economic and environmental data
- Priorities for action
- Resources available within and required from outside
- Assistance required from National and International level
- Constraints to be overcome

6. Preparedness at PHC, Block and District levels
- Co-ordination - Comprehensive PHC services for the entire population and coordination depends on adequate logistical financial support and training from the central authorities.
- Health Management Teams – Consisting of Health personnel, community leaders, NGO reps and community members to assess, plan and implement the pre and post-disaster interventions.
- Community Participation – Conducting needs assessment, determining health priorities or strategies, coordinating with others and act upon the disaster management plan.
- Resources for PHC - Adequate and stable levels of staffing, adequate infrastructure support including mobility sources and essential supplies need to be assessed and maintained.
- Health Information - Indicators for monitoring the PHC program should be defined for all essential PHC services. Information from monitoring these indicators can be used for making decisions and setting policy for future emergency situations.

7. Preparedness at Sub-centre level
- Health sub-centres are often the first contact the community has with the formal health system and most of the district level health workers are based there. So health centres should be equipped to function as the focal point for comprehensive PHC. Resources should be readily available at this level to maintain adequate and stable levels of staffing and supplies.
- Health centres should function in the following ways to reflect their important role:
    - – the centre for community participation.
    - – the base for preparing community health programs (e.g., health education, immunisations, sanitation).
    - – the focal point of inter-sectoral teamwork within the district-level health system.

8. Reasons why the healthcare gets affected
- breakdown of health services.
- displacement of non-immune persons to health-risk areas.
- malnutrition especially among children and lactating mothers due to poor pre-assessment.
- lack of awareness knowledge about the probable health problems.
- not identifying the camps on poor quality land that triggers mosquito breeding.
- problems in supplying medicines on time.

Table 1: Community-based Healthcare monitoring

DISEASES	RISK FACTORS	RECOMMENDED ACTIONS
Diarrhoeal diseases	◆ Not enough latrines ◆ Poor quality of water sources ◆ Contamination of water ◆ Poor food preparation practice	◆ Build and keep latrines clean ◆ Chlorinate and supply water vessels ◆ Provide soaps ◆ Promote personal & food hygiene ◆ Health education
Measles	◆ Overcrowding ◆ Low immunization coverage ◆ Poor nutrition	◆ Minimum living space ◆ Immunization with Vit A supplementation ◆ Carry out nutrition survey
Acute Respiratory Infection (ARI)	◆ Poor shelter ◆ Lack of clothing to cover	◆ Provide proper shelter ◆ Provide sufficient blankets to cover
Malaria	◆ Non-immune people in malaria endemic area ◆ Many breeding sites ◆ Interruption of vector control ◆ Lack of appropriate treatment	◆ Improve access to treatment ◆ Residual spraying ◆ Insecticide treated nets ◆ Treatment of pregnant women ◆ Destroy potential breeding sites
Meningitis	◆ Overcrowding	◆ Ventilation ◆ Mass immunization
Tuberculosis	◆ Inadequate health care ◆ High prevalence of HIV/AIDS	◆ Train health workers ◆ Decrease crowding ◆ Health education on HIV prevention

It is important to define the most commonly used qualitative indicators, which include:
- access: the proportion of the target population that can use the service or facility.
- coverage: the proportion of the target population that has received service.
- quality of services: the actual services received compared with the standards and guidelines.
- availability: amount of services compared with total target population (should be based on minimum standard requirements).

Areas that need further attention for strengthening the Emergency health services

- Knowledge on SPHERE Project and implementation of the minimum standards and indicators as applicable to local situation will help to lay a clear roadmap of Emergency Preparedness Plan
- Trauma Care
    - Pre Hospital Care manuals at field level
    - Hospital care standards and guidelines
- Health infrastructure strengthening and disaster planning is lacking due to-
    - Hospitals work in isolation
    - Even in these hospitals Emergency Department / Critical care facilities are inadequate.
    - Lack of Hospital Contingency Plan and its updating
    - Hospitals have not planned for structural mitigation
- Identification/ disposal of dead bodies
- Inventory Management and Material logistics
- Improved Health Risk Communication
- Adopting new information technologies

- Upgrading the Critical Care units
- Blood Transfusion Services
- Appropriate planning for manpower use
  - Shortfall in Anaesthetists, Cardio-Thoracic and Vascular Surgeons, Neurosurgeons, Psychiatrists, Orthopaedicians, Forensic experts, Nurses, child specialists and Technicians
  - Gaps in human resource (basic specialties) for mass casualty management, mobilization of human resource from outside can achieve adequate mobilization within 24 hours but follow up of patients suffer which has to be considered.
  - Emergency Medical Technicians are a critical resource non-existent in India
- Training, regular updating of new developments and capacity building of health personnel
- Specialized capabilities to handle Nuclear, Chemical and Fire hazards
- Introducing Incident Command System and formalizing mobile hospital and laboratory
- Research and documentation of good practices, lessons learned and future plans
- Promoting effective community participation and training volunteers

Conclusion

While shifting from 'crisis management' to 'risk management' process as preparedness and mitigation measure, the pre-requisites are collecting data through a systematic risk assessment, continuous monitoring of services, disseminating and communicating the risk information and sensitizing and empowering the community with response capacity. Weakness or failure in any section of this event chain may cause an impact on the community which may lead to devastation.

Suresh Mariaselvam, Phoenix Resource Centre, Chennai.

ROLE OF YOUTH IN COMMUNITY BASED DISASTER RELIEF AND REHABILITATION –

A REFLECTION FROM THE ACADEME

Dr. Sandra Joseph

"Securing our common future will require new energy and openness, fresh insights, and an ability to look beyond the narrow bounds of national frontiers and separate scientific discipline. The young are better at such vision than we, who are too often constrained by the traditions of a former, more fragmented world. We must tap their energy, their openness, their ability to see the interdependence of issues…….."

- Gro Harlem Brundtlan. 1987

Ever since the disastrous Tsunami of 2004, the Indian sub-continent is consciously looking at creating efficient and comprehensive frameworks in effectively handling the gamut of multi-hazard vulnerabilities/disasters that confronts it as a nation. The manner in which India handled the post-Tsunami rescue and relief operations primarily by the State of Tamilnadu and the Andaman and Nicobar Islands, evoked much appreciation from nations across the world. At the World Conference on Disaster Reduction (WCDR) held at Kobe, Japan in 2005 India presented its initiatives, achievements, future strategies and action plans in the field of disaster management. At this conference, on behalf of India, the Secretary (Border Management) delivered the statement enumerating the country's firm and unwavering commitment to put into place dynamic institutional and policy mechanisms for holistic disaster management as the distinctive characteristics of India's effort for disaster risk reduction. Plans and approaches are formulated to pave way for safer and sustainable development projects integrating the mitigation aspects into every facet of socio-economic activity.

This paper seeks to highlight the need, importance and contribution of youth in disaster relief, rehabilitation, preparedness and response. It discusses the policy designs that the nation has placed in involving young people to be key players and perform positively in disaster situations. It further brings out experiences and lessons learnt in and through the involvement of young people – both university students and community youth. It highlights conscious use of various resources and in bringing out the hidden potential of youth through real life experiences during the Tsunami of 2004.

Need and Importance of Youth Participation

Home to 243 million individuals aged between 10-19 years, India has the largest population of youth in the world constituting roughly about 34 percent of the total population. Between the year 2010-2030, India will add 241 million people in the working age population, whereas Brazil and China will add a meagre 18

million and 10 million respectively. This rising youth bulge, if not harnessed in the proper channels, will lead to a problem of internal unrest in the country.

It is a well known fact that youth are the backbone to any nation making up for its major portion of valuable human resource. The responsibility for change, progress and innovation lies in the ways in which the youth of this nation are moulded towards positive thinking and contributing to national development. They have it in them to change the future of the Indian society with their vigour and energy converting it into a powerhouse. It should be understood that the innate potential and energies of people in the youth age needs to be channelized, lest it gets dissipated into vice behaviour and other such anti-social activities.

What is important for us, particularly planners and youth workers, is to realize and believe that there is a tremendous potential within youth that has to be tapped and put to positive use. Do we believe that young people can be involved in the development plans of the nation, particularly in disaster preparedness and disaster response roles? Social beliefs have most times failed to incorporate youth in leadership roles and decision making processes. Very often, women, youth and children get left out and are often made passive victims of such situations. The Tsunami of 2004 has left us with newer paradigms wherein youth in almost every coastal community along Tamilnadu coast played a central role in the relief, rehabilitation and response of the devastating tidal wave.

Policies and Programmes for Youth Involvement

A disaster refers to a catastrophe, mishap, calamity or grave occurrence from natural or man-made causes, which is beyond the coping capacity of the affected community. Disaster Management involves a continuous and integrated process of planning, organizing, coordinating and implementing measures which are necessary or expedient for: prevention, mitigation, capacity building, evacuation, rescue and relief, rehabilitation and reconstruction. The Government of India in the year 2005 took a defining step by enacting the Disaster Management Act. It envisaged the creation of a National Disaster Management Authority to spearhead and adopt a holistic and integrated approach to Disaster Management. A paradigm shift from a relief to a preventive approach emerged with a strong emphasis on prevention, mitigation and preparedness in order to minimize loss of life, livelihood and property. The approach mentioned in the Act clearly states that it will be a holistic and integrated approach with emphasis on building strategic partnerships at various levels. The underpinning themes being: Community Based Disaster Management (CBDM), capacity building in all spheres, consolidation of past initiatives and best practices, cooperation with agencies at National and International levels and a multi-sectoral synergy.

The National Youth Policy incorporates participation of youth in national and community affairs through a sense of dedication to community service and reinforces the spirit of volunteerism amongst youth in order to generate a sense of commitment to the goals of developmental programmes. It further envisages a major participatory role for the youth in protection and preservation of nature, including natural resources to

channelize their abundant energies in community service so as to improve the environment. The Policy states specific areas requiring focused attention under the programmes and activities undertaken by youth. It specifies the activities that can be undertaken by youth recognizing the critical role that youth can play in enhancing the resilience of communities in order to cope and minimize the adverse effects of recurring disaster incidents on lives, livelihoods, property and environment.

The new education policies since the Tenth Five Year Plan aimed at transformative education and in enabling students promote and practice sustainable human development initiatives. While the Eleventh Plan focused on relevance of higher education not only in terms of career and jobs, it also focused on challenges in life consisting of event management and crisis management. This clearly spells out the importance that the nation state holds with regard to youth participation. Striving to make a mark as a developed nation, India today is looked up to in many developmental initiatives and managerial strategies. On the topic of Disaster Management and Mitigation, the country is committed towards ushering a new culture of Disaster Management, a culture of preparedness, quick response, strategic thinking and a culture of prevention. Involved in issues of proper governance, health and medical care, capacity building and education, it has strived to make a mark in International and regional co-operation on responding to Disasters.

The role and contribution of youth in disaster management can be put into practice and best utilized only if two important basic rights of youth are met. They are: i) the right to education and ii) participation of youth in socio-economic development and well-being of a nation. First of all, youth must have access to a system of universal education, access to appropriate education, training and work. It is even more important that they not only gain training in skills necessary for employment, but in those which provide moral enlightenment. Youth should be able to pursue activities and develop skills that will enable them to engage in service to other human beings. They should offer their fullest contribution to society, which can happen only when they receive holistic education. Education must be directed towards fostering in youth a consciousness of the oneness of humankind. Youth should have a special responsibility to develop a global perspective and values based on such qualities as love, truthfulness, kindness, justice and esteem for all members of humanity. Youth must be assisted in harnessing these qualities both within the family, which is the foundation of society and within the community they belong to.

Secondly, youth have a crucial role to play in improving the socio-economic and cultural life of the planet, various aspects in developing socio-economic development and well-being would only happen when youth, including young women, are able to participate actively in implementing projects dedicated to improve the living conditions, enhance the quality of human life, and develop self-reliance of their communities. Youth should be encouraged to participate actively in projects without waiting for disaster situations; spread of literacy; participate in projects improving health care and medical treatment. Youth can contribute to community service programmes of a humanitarian nature. They should be encouraged to exchange thoughts and ideas and to inspire coordinated efforts among other youth to improve social conditions. To achieve this full enjoyment of human rights they must also be at the forefront of efforts to promote social and economic progress and justice.

Enhancing Youth Commitment through University Education

Traditionally, universities have been the preserve of the well to do. At the beginning of the Twentieth Century, there was a social awakening that slowly transformed universities from elite centers, for the privileged, to egalitarian institutions, responsible to society and mindful of its needs. By the end of World War II, most universities had become strongly committed to the welfare of their societies and soon 'extension' or service to the community, became a recognized function of universities at least in principle. Thus today a traditional university is charged with the responsibility of undertaking teaching, research and extension activities. As Dailland (1990) point out, the vigorous growth of socially committed universities reflects a confidence in higher education as a major instrument of social and economic progress.

Fredrico Mayor, Director-General of UNESCO, in an address delivered at a seminar on Institutional Development of Higher Education in Africa (Mayor 1991) laid emphasis on 'service to society'. He advocated a university 'forging numerous connections with society. Creating links with other forms of study …, developing outreach programmes…, and networking of all kinds.' He stated 'I should like to see the university cultivate closer relations with the worlds of business, commerce, industry, agriculture, journalism and administration. Research links… need to be forged with all these sectors: greater efforts should be made to seek out consultancy and service work…'. K.B. Powar (1998) has listed out multiple functions of universities. One of which is to render service to society, anticipating the needs and assisting in the fulfillment of social and economic objectives.

In India, because of its ancient heritage and traditions, great emphasis was placed on values. India's first Prime Minister Jawaharlal Nehru (1947), in his oft-cited convocation address to the University of Allahabad, asked the universities to lay stress on "those standards of thoughts and action which make an individual and a nation".   He eloquently stated "a university stands for humanism, for tolerance, for reason, for progress, for the adventure of ideas and for the search for truth. It stands for the onward march of the human race towards even higher objectives".

Thus as a vital system in society, universities are both active and reactive agents in the transformation process that takes place in all spheres of human activity. They contribute to scientific and technological progress, including the development of information and communications technologies, and are, by their function, actors in a very complex process of globalization. In addition, universities are often seen as instrumental in the spread of democracy and in promoting or safeguarding the philosophy of tolerance and justice. In all these functions, they either join forces or compete with other actors in the international knowledge enterprise. To determine their specific relevance and mission in their setting that they are confronted with is a significant new challenge for Universities.

As institutions devoted to the quest of knowledge, their tasks comprise of education of young people who will envisage change and contribute in innovative ways to political, social and economic development, both locally and globally. The challenge facing universities is to prepare and create an enthusiastic and committed body of young professionals who will be prepared to confront changing characteristics of society and more importantly issues of injustice and mal-development that seem to be an off-shoot of the process of modernization and development. Young people should not, only be equipped with modern knowledge and information, but also be trained and equipped with skill and ability coupled with a strong commitment and sensitivity to the lesser privileged millions who have had no access to food, clothing or shelter; leave alone the

right to education or entering the portals of a university. What needs to be addressed in definite terms is to clarify the commitment of such universities towards human development and the sustenance of the same. Universities need to partner with key stakeholders, evolve effective strategies that involve representatives and play a pivotal role in addressing crucial societal issues such as disaster management and the likes to such issues.

Youth Participation in Relief and Rehabilitation- *The Stella Maris Experience*

Stella Maris College, an institution for higher education for women, is committed to contribute towards a just society. Founded in 1947, its vision *is to build a vibrant and inclusive learning community in a culture of excellence sustained by a sound value system that promotes responsible citizenship and effects social change*. Through its mission, it encourages its students to be builders of a humane and just society. Over the years, it has strived to provide empirical and theoretical support to the different models of Human Development and in bringing about a positive transformation in society. Through its various departments, several projects have been initiated in order to provide understanding and hands-on experiences for its faculty, students and the community. Since its inception, Stella Maris College has been engaged in various programmes with the aim of:

a) Sensitizing students to the problems faced by society - women in particular, and
b) To train them to play an active and positive role in the betterment of society.

The Department of Social Work established by the college primarily aims at training students to be rooted with specific competence to work with the marginalized and oppressed communities. Using sound theoretical foundations in its interventions, it aims at imparting scientific knowledge about the dynamics of social problems and issues in society that are of prime concern. Students are trained to foster professional thinking regarding policies, plans, programmes and approaches pertaining to different fields of social work practice. They work with the under-privileged sections of society from rural, urban and tribal areas. The college is, therefore, equipped in carrying out various intervention and research projects continuously.

With a firm commitment to go beyond the structures of university learning, the college spearheads an extension project, lead by the faculty of the Social Work Department, located at Royapuram, North Chennai. It is titled as *Sangamam*, which means confluence, a symbolic merging of the community and the institution, both moving towards a common purpose. The philosophy is to move in accordance with the needs that emerge in the community it serves. *Sangamam*, envisions a partnership with the fishing communities habitated along the coastal areas of North Chennai, in and around the harbour area. Students of Stella Maris College are encouraged to in all intervention programmes.

The Stella Maris Experience of involving youth in disaster relief and rehabilitation were executed at two levels. At one level was the involvement of the student community and the other level was the involving youth who were affected by the disaster. A description of the Stella Maris experience will first be presented

followed by the experiences of working with youth at the community level. With the onset of the Tsunami disaster, Stella Maris College was involved in rescue, relief and rehabilitation interventions. The work was carried out as a collective effort with the student volunteers, faculty members, and community youth together with other civil society organizations. As a first step, students visited affected areas (which included Chennai, Mahabalipuram, Kanchipuram, Cuddalore, Pondicherry and Kanyakumari) in teams guided by faculty members. Coupled with the rapid assessments made by the state and several other non-governmental organizations, the visits brought forth the need for co-ordinated and specific interventions at the state level. With resolute commitment to involving the student community, the college suspended all academic activities and geared up for a month long camp in the various Tsunami affected districts of Tamilnadu. This mammoth task was accomplished together with other schools of social work in the State of Tamilnadu. A blue print for action was prepared and spearheaded by the department of social work. Specific objectives were prepared, and damage and needs assessment was conducted. The Social Work fraternity from 29 Colleges of Social work in Tamil Nadu in collaboration with TISS, Mumbai carried out a survey titled Damage and Needs Assessment of the Coastal Villages affected by the Tsunami. It is the only official report available to the Government on the complete damage and needs.

Special training was organized for the community members particularly the youth through a Training of Trainers workshop in 'psycho-social care'. It was organized with the support of the National Institute of Mental Health and Neuro Sciences (NIMHANS), Bangalore. Training was imparted to other college students and organizations to develop training kits, songs, skits, street theatre, etc. Professional intervention in the affected community was made through Relief and Rescue, restoration of assets, Counselling, Training, Research, psycho-social care, alternative employment, Community Organization, school intervention, disaster preparedness training programmes and networking with various groups of community youth such as adolescent boys and girls, the differently challenged youth groups, advocacy, capacity building through enhancing skills for youth and other partnerships.

Involving youth in disaster relief and rehabilitation, from Royapuram, through the 'Sangamam project' at the community level was an extremely edifying process. Since the mission of this project is to *"to be with, feel with and work with the community for a higher quality of life",* it was the obvious responsibility of the Sangamam team to rise up and get involved in the mammoth task of relief work. Young people were the only available human resource at the time of the disaster. Young men and women swung into action and involved themselves in the rescue process. What is worth mentioning is that Sangamam saw a new beginning in its intervention process. A good number of physically challenged youth emerged as a vibrant force behind the relief and rehabilitation work of Sangamam. These youth were then identified as volunteers and the main resource links for 14 areas in the community. The youth, including the physically challenged were given intensive training inputs and were handed the responsibility to assess damages and needs in their respective communities. As a result of committed services, they were recognized and looked up to as potential leaders in the community.

Search and rescue, emergency relief and humanitarian assistance and assisting with transport and temporary shelter were organized by the youth of the community. Youth ensured the survival of a maximum number of people affected. A total number of 4238 families (5950 Men, 6056 Women, 4721 Children, 126

physically challenged youth) were assisted. A baseline survey was conducted, details cross-checked, tokens issued and a common place chosen.

Medical camps, psycho-social counselling, livelihood needs such as distribution of nets, boat repairs, etc were managed by the youth. Key interventions included permanent housing, restoring and promoting sustainable livelihoods, promoting rights and alternative employment for women, children and persons with disabilities and strengthening community institutions.

The Rehabilitation phase spearheaded by the community youth crystallized into several on-going development programmes for the community such as: Forming and Training Volunteer Groups, Disaster Preparedness –Training and awareness, Child Rights & Empowerment (Forum Formation/Transit Schools), Advocacy – Seeking Entitlement (Information about Rights as part of the Fishing Community), Women Empowerment (Training Programmes, Self Help Groups Programmes), Medical – health awareness, Integration into mainstream education after dropping out of school (transit schools), Awareness building through exposure visits, Establishment of data bank of community children, Sports activities and organized community drives to promote civic sense, Formation of youth groups, Leadership and Employment training, Volunteering for community needs, Linking resources (governmental and non-governmental) with youth, Awareness building through innovative out-reach programmes like street plays, Sports and recreational activities aimed at building community cohesiveness, Recreational activities, Training on personality development, fieldwork training and exposure visits to several institutions in Chennai.

Sangamam's youth volunteers play a key role in contributing to the mitigation and preparation of a community to effectively face a disaster. Efforts to minimize the hazards created by the disaster were carried out by the support of the youth. The mitigation and preparedness phases occur in anticipation of a disaster event. Appropriate actions at all points in the cycle lead to greater preparedness, better early warnings, reduced vulnerability or the prevention of disasters. Structural and non-structural measures were undertaken to limit the adverse impact of natural hazards on the community. Such efforts were: Vulnerability analyses, Public education, Building codes, Preventive health care, Preparedness plans, Capacity building, Emergency exercises, Warning systems, Sensing a tsunami, Insurance Coverage, Awareness on regulations such as the Coastal Regulation Zone, etc. The interventions culminated in a National Conference, were documented in research reports, status reports and disseminated through other forms of media such as photographs, documentaries etc., bringing out deeper understanding, profound ideas on equity and inclusiveness, developed models of good practice and most of all, enabled the student community stand in solidarity with the marginalized.

Conclusion

Youth involvement in disaster situations may be made mandatory as the case is with countries that are threatened with war crises. Training programmes should be organized systematically that sustain youth

commitment. The youth of Kasimode community is conscientized towards altering their lives and striving towards building a better tomorrow for themselves as they hand over a healthier legacy to the future generations of the fishing communities in their areas. The physically challenged youth of Kasimode have emerged as key stakeholders of the project. The take away lessons from this experience is that the youth of Royapuram have emerged as a strong human resource base in the community, are a strong force in the process of rescue and relief, act as interpreters and dissemination of information in the community and bring with them new ideas and effective strategies. What is important is to innovate good practices that keep young people as prime players in the process.

It would be appropriate to conclude this article with a quote from David L. Johnston, the then Principal and Vice-chancellor of McGill University, Canada and Member of the International Association of Universities (IAU) Administrative Board, who said at the IAU 9th Round Table, Kyoto, Japan, 19 November 1993: *"Everything, I would agree, because universities are uniquely equipped to lead the way. By their special mission in teaching and training the leaders of tomorrow, by their rich and increasingly extensive experience in conducting trans-disciplinary research and thereby overcoming traditional boundaries between discipline-based departments, and by their fundamental nature as engines of knowledge, universities have a major role to play in a world whose national boundaries are dissolving daily into ever-smaller regional entities. In fact, the major role is understanding. The universities have an indispensable role".* This statement is a clear indication as to the role of university in involving young minds and hearts in the development process of the nations. More importantly, stakeholders of university education and youth formation/development need to take a serious look into their roles and responsibilities as stewards of this valuable human resource to the nations of the world.

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Dr. Sandra Joseph, Head, Dept of Social Work, Stella Maris College, Chennai.

ROLE OF YOUTH VOLUNTEERS IN DISASTER MANAGEMENT

Dr.J.Henry Rozario

Introduction

Youth constitute a significant group in society in terms of power and energy. Most of the nations have realized the potential of youth and have devised ways and means of tapping their energy and directing it towards development of the youth and of the nation. One of the avenues and means is the multitude of volunteer programmes wherein young people have enrolled and contributed. Disaster Management is one such area which requires the participation of the community members in effectively mitigating and managing the impact of disaster. The paper defines youth and youth volunteers and highlights their role in disaster management with special reference to their role in disaster preparedness, rescue, relief and rehabilitation.

Youth

There have been divergent views regarding youth. The United Nations Organization defines youth as those falling under the age range of 15-24. Government of India has gone to the extent of classifying all those in the age group of 13-35 as youth (National Youth Policy 2003). Dorothy Rogers (1981) defines youth as a process than a period; a process of achieving the attitudes and beliefs needed for effective participation in society.

Paul Chowdhary (1988) regards youth as a period of preparation for assuming responsibilities of adult life, such as the social obligation of marriage and procreation, economic responsibilities of earning and living and civil responsibility of citizenship in a democratic society. According to him, youth is interpreted as a preparatory period for one's future adult role. Gurmeet Hans (1999) expresses a similar view by saying youth is a period of preparation for adulthood. However, Gore (1977:3) is of the view that though classifying youth on the basis of age may have certain limitations, there is no other socially meaningful way of differentiating between youth and adulthood. The age definition at least points out a definite social group, which has its own specific problems and needs.

Youth Potential

Youth constitute an invaluable human resource of a nation. They have emerged as a most important segment of our population (Joe Arimpoor, 1983:8). They are physically strong, mentally agile, and look for change and dynamism in their own life and in the life of the community they live. They embody power and strength. Wherever their energy has been channelized into socially useful and constructive activities, it has

resulted in prosperity and development. "Youth are the couriers of new ideas and embody the impatience and excitement needed to spur the all round development of a nation (Chandre Gowda et al, 1991:245). They are idealistic and so accept new ideas and views without much hesitation. They are also impulsive and in this way generate necessary power to carry out what they consider as important to themselves and the society.

However, youth are not only powerful but also vulnerable. They have abundant energy but are still dependent on parents and other adults to equip themselves for the demands of adulthood. In fact, the society itself sometimes treats youth with ambivalence. "Youth, on one hand, are reminded of their enormous responsibilities and potentials; and on the other hand, exhorted not to exceed certain limits and are told to channelize their curiosity along some approved direction (TISS, 1985). Thus, if youth have to contribute to the development of the nation, it presupposes that the development of youth takes place first or co-exists along with the development of the nation. For this to happen, the society must create avenues for them. One such avenue will be involving the youth as volunteers. Youth, when they serve as volunteers, have the opportunity to develop themselves as well as to contribute to the development of the community wherein they are involved.

Volunteerism

Volunteerism involves rendering one's services out of concern for others. It is an act of compassion and generosity. A person becomes aware of the needs and problems of a section of people and decides to act in a way that would address the problem. Others do not persuade him, but he comes out on his own. Knauft (1992:5) defined volunteerism as "any activity that is carried out to help others and not conducted for monetary gain".

Volunteerism refers to helping others through any type of activity. That does not mean that volunteerism is non-professional or an act of some goodwill and compassion without long-term effect. It only means that a person must have a spontaneous urge to help others. He must have social concern. He must not do it out of others compulsion but out of his free will. As Knauft points out such services should not be done for monetary gain.

Youth Volunteers

It can be said with confidence that most number of volunteers in India belong to youth category, belonging to organizations like National Service Scheme (NSS), Bharat Scouts and Guides, Nehru Yuva Kendra Sangathan (NYKS), Youth Clubs and Mahila Mandals attached to Directorate of Youth Affairs & Sports of State Governments (Mukhopadhyay, 1995:78). The rest of the youth are attached to NGOs and some of them are working through informal groups or independently. These volunteers work on a temporary or adhoc basis and so there might be frequent dropouts as well as inductions. Most of the volunteers work more at the grass root level than as planners or administrators. Most of these volunteers are educated and are from urban and semi urban areas. Male youth out number female youth not because of any attitudinal difference but because of more opportunities and social roles cut out for men in Indian society. The volunteers predominantly belong to middle strata of the society.

It is possible to access youth and involve them for a common cause which inspires them. Those who have worked with youth would agree that though it is difficult to mobilize youth on a continuous basis due to their migrating nature and career or educational demands, they are a powerful force to reckon with on short term activities and for short periods. This nature predisposes them to be effective volunteers for a common cause. Disaster Management is one such area wherein the youth have always volunteered in rescue and relief operations spontaneously.

Disaster and its Impact on Communities

World Health Organization (WHO) defines disaster as an occurrence that causes damage, economic disruption, loss of life and deterioration of health and health services on a sufficient scale to warrant an extraordinary response from outside the affected community of area of effect. Disasters cause havoc because they are mostly unpredictable. The loss of life and destruction of property is so sudden that it causes enormous emotional distress and despair among the victims other than economic destruction.

Thus the impact of disaster has the physical, economic, social and emotional dimensions to it. People lose their lives all of a sudden and in no time, the social fabric of society, the family is destroyed. Adding to the tragedy is the loss of property that probably would have been built upon few decades of hard work and savings and which would have been counted as a social security measure for the future needs and wants. The misery is confounded by the epidemics that break out due to the failure of mass communication, transport and health systems. Those who survive the actual disaster may sometimes succumb to the after effects of disaster in the absence of medical support and transport services. Thus survivors of disasters go through and relive the agony for many years in spite of the organized attempts in disaster management.

Disaster Management

Pre-Disaster Management involves phases such as Disaster Mitigation and Preparedness. Mitigation phase aims at preventing hazards from turning into disasters by taking proper precautions. It also includes measures that would reduce the impact of disaster, once it occurs. Preparedness phase involves a continuous cycle of planning, coordinating, executing, monitoring and evaluating activities of different government and public organizations to respond appropriately and effectively against natural or human-made disasters. It is in this phase, the youth volunteers have to be actively involved so that they will be better equipped to play their support role in case of impending disasters.

Post-Disaster Management involves phases such as Rescue, Relief, Rehabilitation and Reconstruction. Rescue phase aims at saving lives from the disaster. It includes rescuing survivors and providing or arranging first aid at the earliest and then facilitating medical treatment at the earliest. In fact in most of the disaster situations, it is the volunteers who reach the spot early and support the government machinery in the rescue operations. Most of the volunteers are from the affected community itself and they raise to the occasion as part of natural human response towards the tragedies they see. Few volunteers have even given their lives by way of saving others. Relief phase focuses on providing the basic needs of the survivors such as food, potable drinking water, shelter and clothing facilities. While the government machinery takes control of this phase, there is abundant scope for NGOs and volunteers to play critical role. Rehabilitation phase aims at restoring the normalcy of the affected people and their social and physical environment. The survivors get back to their normal life style and start their new life all over again. This is further reinforced in the Reconstruction phase with special emphasis to the rebuilding of physical infrastructures and assets to enhance the income generation.

Role of Youth Volunteers in Disaster Management

The role of youth volunteers in the disaster management cycle is more prominent in four phases – Disaster preparedness, rescue, relief and rehabilitation.

Role of Youth Volunteers in Preparedness Phase

One of the main aspects of preparedness phase is to create awareness among the community about the disasters they are prone to or have already come across and to equip them with knowledge, skills and more importantly attitudes to face such situations. Youth volunteers all over the world have been successful in awareness campaigns on issues such as HIV/AIDS, tuberculosis, safe sex practices and polio vaccination campaigns. Taking cue from these best practices, youth volunteers can be effectively involved in the preparedness phase. They could be trained on the warning signs of disasters and proper procedures to be followed in the evacuating and rescuing people. Once the youth volunteers are trained, their services could be used to organize and train the rest of the community. There is likelihood of people from the community responding more positively to the youth of their own community than officials from outside. While this measure would help to cut cost to some extent, it would also build the social capital of the community.

Role of Youth Volunteers in Rescue Phase

The rescue phase begins as soon as the disaster strikes and mostly it is initiated by the able survivors of the affected community. They are the first rescue workers. Government machinery and NGOs and professionally trained rescuers arrive late depending upon the damage to the transport and communication systems. This is why the role of youth volunteers of the affected community assumes significance. If the youth volunteers of the community affected by disaster happened to be trained, that would ensure more saving of lives by way of immediate first aid and referral services. They also need to be cautioned to protect themselves

during such rescue operations since youth could be easily carried away emotionally during such operations, risk and lose their lives.

Role of Youth Volunteers in Relief Phase

In the relief phase, the district administration of the government machinery takes over but not without sharing the responsibility with NGOs and volunteers. The government machinery has limitations in terms of its bureaucracy, expertise, number of personnel and their commitment. Youth volunteers could be a great asset in such scenario. They can play a supporting role to the fire service personnel, police and medical teams. They can mobilise people to donate blood to victims in need. They can be involved in the physical safety of the survivors, providing first aid, overseeing basic necessities such as food, water, accommodation, clothing, temporary sanitation and proper distribution of relief supplies.

They can be also involved in providing psycho-social care to the survivors after proper training. Relief phase is not about ensuring mere physical amenities but also of relieving the emotional trauma of the community. Disasters result in social calamities such as displacement of the individuals and loss of marital partners or children or other near and dear. Loss of infrastructure would have resulted in loss of jobs and means of employment, and this can create sense of despair to the survivors. Living in the camps, uncertainty about future and fear of another impending disaster will unsettle people. There may not be definite news about the whereabouts of lost family members and their life status. All this will require proper psycho-social care in enormous proportions. Youth volunteers could be properly trained and used effectively in this spectrum of care.

Role of Youth Volunteers in Rehabilitation Phase

Rehabilitation phase focuses more on rebuilding destroyed property, providing reemployment, training on alternate skills for new jobs and the restoration of essential community infrastructure. This calls for a proper need assessment for the individual, family and the community. Trained youth volunteers would prove useful in this role since they have first hand information about the community and have established credibility and relationship with the community members during rescue and relief operations. These volunteers can refer people to right sources, can assist them in the compensation procedures from the government and NGOs, help families in getting death certificates for the deceased, open back accounts and receive monetary help from different sources. More importantly they can assist families in reorganizing their livelihood options by coordinating with government and NGOs.

Conclusion

Disasters almost ruin the lives and hopes of people. While we have very little control over preventing disasters, we have lot of options to mitigate the impact and reduce the losses to human lives, property and community infrastructure. This can be done more effectively when community members like youth volunteers involve in the disaster management cycle, especially in the disaster preparedness, rescue, relief and rehabilitation process. Youth have the potential and the desire to volunteer. It is only the question of creating options and avenues for their participation.

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Dr. J Henry Rozario, Associate Professor, P.G. & Research Dept. of Social Work, Sacred Heart College, Tirupattur -635 601, Vellore Dt. Tamil Nadu.

ROLE OF YOUTH AS SOCIAL CAPITAL IN DISASTER MANAGEMENT

Sojan Augustine CST

Introduction

Since time immemorial, we have been facing various disasters, both manmade and natural. As we know disaster is a sudden calamity that brings great damage, loss, destruction and devastation to life and property, the damage caused by disaster is immeasurable in various ways and various geographical location, climate and types of surface. This influences the psychological, socio-economic, political and cultural state of the affected area. As India being one of the natural disaster prone areas where every year floods, drought, earthquakes and landslides occur over the lengths and breaths of the country, it has become very essential for every individual to be aware of disaster management.

This article examines the scope and prospects for effective utilization of social capital of youth such as social networks, social cohesion, social interaction and solidarity in mitigating the consequences of natural and manmade disasters. This is a conceptual paper where the author highlights the role of social capital of youth in disaster management. Effective utilization of social capital of youth is a better option for mitigating the consequences of natural and manmade disasters. The author give special emphasis to social capital at three levels: bonding among youth; bridging rural and urban youth; and linking youngsters through ties with public institutions.

Concept of Social Capital

The concept of social capital has become prominent among the development practitioners and it is valid universally. Loeffler et al. (2004) define social capital for social work as a process of building trusting relationships, mutual understanding and shared actions that bring together individuals, communities and institutions. They also claim that the processes involved facilitate further cooperative action. These generate opportunities and/or resources that are realized through networks, shared norms and social agency. Putnam (2000) notes that if people lack money, then they can give time strictly out of self-interest that can be harnessed through social capital in communities that need help. Putnam's theory of social capital presumes that the more people connect with each other, the more they will trust each other and the better off they will be individually and collectively, because social capital has a strong collective aspect. The youth have immense capacity and interest to make a change, but they don't always have the opportunity to channelize their energy in the proper direction. Putnam (2000) sees social capital as a 'public good' embodied in civic engagement with implications for democratic and economic prosperity, possibly quite naturally excluding children and young people, excluded from civic participation as they are often seen to be by age.

Youth as Social Capital

We are living in a very youthful world, indeed, with almost half of the current global population under the age of 25. There are 1.2 billion young people in the world today, and the next generation of youth (children presently below the age of 15) will be half again as large, numbering 1.8 billion (World Youth Report 2005). The 2011 census report reveal the fact that the current Population of India is with 1,210,000,000 (1.21 billion) people and the second most populous country in the world. More than 50% of India's current population is below the age of 25 and over 65% below the age of 35.

Today's young people hold the key to future of society. Their ambitions, goals and aspirations for peace, security, development and human rights are often in accord with those of society as a whole. Youth is increasingly being viewed for bringing potential benefits to other generations. The significant role that youth plays to the societies has been fully recognized in various important global and regional initiatives. Youth is a social capital, being one of the important segment of the society, has the potential to act as agency for disaster management.

Issues around Social Capital of Young People in India

Youth organizations face both challenges and opportunities in India. Youth in India is a major human resource for development, key agents for social change and driving force for economic development and technological innovation. In our society there are number of youth organizations both Governmental as well as Non-Governmental. Majority of the youth organizations are part of political parties but their talents, dynamism, imagination, ideals, considerable energies and vision not developed as social capital. All political party mobilizes them with hidden agenda and they organize young people to win elections. Social capital is all about bringing people together for any number of purposes. Putnam (1993, 171) argues that social capital reflects "...norms of reciprocity and networks of civic engagement." None of the common issues are addressed by these organizations if they don't have personal benefits. The NSS and NYKS are the biggest Govt. youth organizations in our country, but in reality there is no collaborations or understanding between.

Most of Indian young people are embedded in four types of communities: school, family, religious communities, extracurricular groups (which include clubs, sports and informal communities of friends). It is in these four categories of places that young people meet and associate with the most important people in their lives: parents, siblings, friends, coaches, teachers, and mentors. During schooling, students are encouraged civic engagement in numerous ways. They are taught the basic skills necessary to participate in civic life: reading, writing, public speaking, teamwork, project organizing, etc. But after schooling, there is no proper mechanism to tackle the social capital of youth. The major problems and challenges in India is that there is no comprehensive study available on the latest development concerning youth issues.

Role of Youth as Social Capital in Disaster Management

Young people, being vibrant and skillful, have interest to learn and experiment new things. They can be trained to face any sort of unexpected situation. Disaster preparedness and recovery is more important than physical restoration. It is about enabling, involve and enhance participation of youth at every level of decision making.

When the Indian Ocean tsunami hit on the morning of 26 December 2004, young people rescued and saved many, often at the risk of their own lives. When the waters finally receded, they reconstructed their families and communities by building, teaching, planting, cooking, distributing aid and information, performing rituals and caring for those shattered by the catastrophe. (Report UNICEF, 2005). The tsunami 2004 provided an opportunity and a wake-up call for many young people. The disaster revealed social inequities, thus galvanizing young people's social consciousness. In the aftermath of the tsunami, young people gained the confidence to speak out. Even though the tsunami brought death and destruction to thousands of lives, it also brought people together, regardless of their backgrounds, and created an opportunity for young people to play an active role in their communities (Report UNICEF, 2005).

Table 1 : Disasters and Role of Youth

Types of Disasters	Details of Disasters	Role of youth in Disaster Management
Natural disasters	✦ **Weather related:** *Storm, Cyclone, high tide and sea flood* ✦ **Water related:** *Flood, Drought, thunder, tide* ✦ **Geological:** *earthquake, soil erosion, landslides, volcanic eruption and tsunami* ✦ **Fire:** *Forest fire and fire.*	✦ *Spreading 'AWARENESS' in the society* ✦ *Organize mock camps to train people to cope up with disasters* ✦ *Be a part of emergency rescue team* ✦ *To provide first aid* ✦ *Deforestation should be checked* ✦ *Donate Blood*
Man-made Disaster	✦ *Aviation Accidents, Rail Accidents, Road Accidents, Boat Capsizing* ✦ *Deforestation, Forest and Urban Fires* ✦ *Industrial accident, atomic accident, radiation* ✦ *Terrorist Activity, War, riot* ✦ *Panic Exodus* ✦ *Mine Collapse, Mine Flooding, Ocean Oil Spills*	✦ *Distribute Disaster Mitigation Tool Kit* ✦ *Psychosocial support to victim* ✦ *Take them to a safe place* ✦ *Providing Flood* ✦ *Rescue & Evacuation*

Role and responsibilities of Youth in Disaster Management

The essence of social capital is quality social relations. It is the quality of relationships, understood through the use of the concept of 'social capital', which affects the capacity of people to come together to collectively resolve problems they face in common (Stewart- Weeks and Richardson 1998: 2), and achieve

outcomes of mutual benefit (Lochner, et. Al., 1999). Thus, social capital can be understood as a resource to collective action, which may lead to a broad range of outcomes, of varying social scale. Youth has a special skill for collective action.

During the tsunami response and emergency relief period, number of relief agencies involved and UNICEF East Asia Pacific Regional Office initiated a review of the participation of children and young people in the response to the emergency. As a result, they organized 'Child and Youth Participation Forum and Fair' in Phuket, Thailand from 12-16 November 2005. The two-day Forum brought together over   20 young people from five tsunami-affected countries to share their experiences of participation in the emergency response. Savitri, a Youth volunteer from Tamil Nadu, India said "We have potential and the energy to work for our country and our people. Please give us the opportunity to use our ideas." (UNICEF, 2005).

The youth participants listed their many contributions to their communities, but said there were many more young people whose energy and potential remained untapped. Young people repeatedly reminded participants during the event, their contributions to the tsunami response largely went unrecognized and unappreciated. One of the major issues of the social capital of youth is that still their potency is not properly identified and channelized.

Youth who are well trained are better prepared, and are more effective in responding to the aftermath of disasters. The involvement of youth organizations like NCC, NSS, Scouts & Guides in disaster response was highly appreciated. The youth participation in Disaster management is even more significant in view of technological development, climate change, terrorism and increased understanding of social, industrial and technological generators of risk. At the same time, technology is increasingly part of people's daily interactions and social relationships. Young people are very much close to the latest technology and social network. In these days, youth in large number use social networks. Online social network sites like Orkut, Face book and MySpace became common destinations for young people in India. Throughout the country, young people were logging in, creating elaborate profiles, publicly articulating their relationships with other participants, and writing extensive comments, back and forth. This gives light to the far-reaching social capital of youth and this can be used for constructive and creative purposes.

Social capital is a useful concept that seeks to explain the characteristics required for effective and egalitarian youth-based management capacity. There is evidence that youth have been in the forefront in most dangerous situation to protect the rest of the people. During the Mumbai attacks on 26 November, India's National Security Guard (NSG) commandos defeated the terrorists completely.   Similarly, during the Kargil War also, even though we lost many soldiers during the battle, the youthful Army kept the name of India high in the sky.

Youth capacity, as it relates to disaster management, is an attractive concept as it gives focus to efforts to build resilience and to support mitigation, rather than to address post-impact losses. The aims are to build on

present strengths and reduce deficiencies. However, even within the field of disaster management, it is not well thought out. It is an opportunity to link more established capacity development programmes and approaches, which are not related to disaster management, with efforts to reduce risk, hazards and loss potential.

Disaster management is presaged on the assumption that communities especially the youth will be actively involved in the processes of mitigation, preparedness, response and recovery. In most of the disaster situations, normally, the youths are in the forefront. The participation of youth as the key partners in the mitigation efforts rather than recipients of the Government sponsored measures is very significant. The practice of risk assessment, rapidly gaining ground, also gives influence the youth involvement through activities designed to create structures which will help to identify, assess and evaluate risks and then to participate in risk reduction and risk management activities.

The principle underpinning all aspects of youth recovery is centered on the need to enable the youth to take charge of their own recovery as quickly as possible. Due to disaster, when someone becomes ill or injured, there is usually a short period of time before you can get professional medical assistance. Normally for quick action, energetic and dynamic nature of youth is very important for disaster management.

Capacity generally is understood as the ability to access skills, knowledge and resources and to apply them effectively. Most of the disaster planning and management arrangements are done not through the proper involvement of youth. The more participative and devolved styles which engages and interact with the youth, that is the ideal practice. Main social capital attributes are integration, cohesion, solidarity, networking, communication, interaction, coordination, collaboration, social supports, leadership and volunteerism. These are the essential qualities needed for a proper disaster management and young people are very good resources for the same. Most of the international volunteer's organizations are looking exclusively for youth.

It is therefore high time to channelize youth by imparting training on disaster management for reducing the impacts of disaster. Proper training on disaster management on all the three phases, i.e., pre, during and post disaster should be imparted so that the youth are capable of surviving and helping other victims in disaster.

Methods to mobilize social capital of youth

In the Indian context, how the social capital of youth can be transformed for constructive and creative benefits of future generation is a serious point to be reflected. It is possible through developing local skills and knowledge to increase participation in government programmess and engage village youth in a shared vision for revitalizing their communities.

The mobile phone, Face book, Twitter and the like have transformed the mode of communication between friends, family and even business acquaintances, especially amongst the young. The Web, as marketing and media people discovered quickly, is the new wonder of social communication, but as people in Egypt and the Middle East also discovered, a power for social mobilization.((Schulz, Michael.(2006).

Putnam's theory of social capital believes that when more people connect with each other, the more they will trust each other and the better off they will be individually and collectively, because social capital has a strong collective aspect *(Putnam 2000).* In this post-modern society, as youths are very busy and involved in many things, instead of thinking about conventional youth organizations, an initiative to hoist an official e-platform may be made, where youth can share their dreams and ideas, and can work as a helpline as well. It will be really helpful for youth as well as to our society to utilize their social network for some constrictive purpose and bridge the distance in the society.

The youth often demand their communities to recognize their potential. "We would like to take part in community development because our opinions would bring about the best development," a girl volunteer said that. "In order for all people to live in the community in harmony and happiness, please include us, today's young people, in development plans" (UNICEF, 2005).

Snowden (2005) argues that community social capital reduces community distress. But the reverse is also true: community distress suppresses social capital. The effective utilization of social capital is crucial in the building of youth and institutional capacities in disaster management projects. Therefore, there is a need for some persuasive work in formulating policy directives that will emphasize community collaboration, solidarity, coordination and utilization of social networks as a vehicle for effective service delivery before, during and after a disaster.

At the present time, many social scientists agree that social capital is present and positively contributes to economic growth and building social capital has typically been seen as a task for second generation economic reform and it is important to the efficient functioning of modern economies. It is a fact that unlike economic policies or economic institutions, social capital cannot be so easily created or shaped by public policy. Nevertheless in the initiatives like youth policy, there must be a space to develop and coordinate social capital of youth.

Conclusion

Social capital of youth refers to the collective value of all 'social network' and the inclination that arises from this network leads to collective effort for the cause. So, identifying youth as social capital is need of the hour to prepare them and manage the disaster effectively and efficiently. In India is rich as it has millions of people with their own unique identities based on ethnicity, language or religion, and creating a

meaningful channel of communication among the youth is very important. It will support them to grow stronger, more productive and become less vulnerable. Trust is the central component of social capital which consist the golden rule of reciprocity and network. The core of social capital is trustworthiness and networking and these are the key factors for disaster management. Social capital of youth will augment the contact between people, cultural exchanges and mutual trust and understanding that keeps our social network intact.

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Sojan Augustine, Lecturer, School of Youth Studies and Extension, Rajiv Gandhi National Institute of Youth Development (Deemed University u/s 3 of the UGC Act, 1956), Ministry of Youth Affairs and Sports, Govt. of India, Sriperumbudur-602 105, Tamil Nadu

ROLE OF LOCAL GOVERNMENTS IN DISASTER MANAGEMENT

Dr. K Gireesan

Background

Constitutional status to Local Government Institutions was a defining moment in the history of decentralisation of political power in India. It has brought in a paradigm shift in the operational domain of local governance in the country. The 73rd and 74th Constitutional Amendments enabled the local governments with the power, authority and resources to function as 'units of self government', though with varying levels of initiative, drive, interest, intensity and diversity of operations in practice. And, the local governments have started assuming the centre stage in bringing effective, efficient, people-centric and responsive system in a decentralised mode of governance. This has been possible only with the positive attitude, active involvement and voluntary support extended by the community in the development process, and through networking of different stakeholders in local governance.

Impact of the historic constitutional amendments has resulted in changing the dynamics and equations of power significantly at the local level. The uniqueness of local governments is that it not only provides direct participation of people in administration but also play an important role in bringing good governance at the grassroots through various dimensions like accountability, transparency, responsiveness, equity, inclusiveness, effectiveness, efficiency and consensus. And, it is noted that the significance and functions of local governments across the country are being extended over the years, despite the wide disparity in the strategies and approaches across the country. In this background, role of local governments in disaster management has been taken up for an analysis.

Methodology

Interactions with the elected members and officials of local government institutions from different parts of India and discussions with the youth functionaries from political and non-political organisations formed the major source of information. The researcher interacted with the officials of various local institutions like Primary School, Health Centre and Agricultural Office. In addition, discussions with the functionaries and members of various community based organisations have also provided useful inputs.

Discussions

Disaster management includes policies, administrative decisions and operational measures pertaining to disaster prevention, preparedness, mitigation, response, recovery and rehabilitation. Building capacity for disaster management to different stakeholders indicate the need for training to elected members, officials, civil society and community to enhance their awareness, as well as creating an organisational set up to take up the suitable interventions in times of need.

When compared to other levels of government, local governments do have more important roles in disaster preparedness, disaster management as well as in meeting the post-disaster situations. Being close to the people and by virtue of its sheer mandate for local leadership in its functional area, local governments have a greater responsibility to take all possible efforts to forecast, prepare and meet any such eventualities. Local knowledge about the resources, facilities and support systems, and the alternative options are crucial in disaster management. During disasters, people look up to the local government at the first instance, for addressing their basic needs and concerns. And to perform up to their expectation, the local governments must be adequately equipped too.

Towards functioning effectively and efficiently during disasters, local governments must have the following: an organisational set up, a specific disaster management plan and capacity building of its stakeholders. The organisational set up for meeting any eventualities must include representatives from all major stakeholders. Each local government must have a disaster management plan with the details of resources, facilities and necessary equipment for any rapid action. The plan should clearly highlight the roles, responsibilities and functions of all stakeholders - elected members, officials, government institutions, community based organisations and NGOs. It is essential that the disaster management plan has to be updated at regular intervals, in view of changes in vulnerability profile, resources, facilities, etc. Capacity building of the stakeholders indicates towards the conduct of awareness and training programmes for elected members, government officials, members of civil society organisations and community at large, which is very important in addressing the emergency situations. It must also incorporate training on first aid, mock drills and other preparatory exercises anticipating such eventualities.

Role and functions of local governments during different phases of disaster management have been indicated in the following paragraphs.

A.   During the Phase of Pre-Disaster:

Some of the primary functions of local governments during the pre-disaster phase are given below.

(i)   Initiate a 'Mapping of Resources and Facilities' in and around its functional area with special emphasis on their suitability for disaster management. For example, identifying temporary locations for keeping evacuated persons, storage of food, drinking water, medicines, etc., availability of necessary equipment and its status like tractors, trolleys, bulldozer, crane, JCB, etc., list of professionals like doctors, engineers, nurses, electricians, plumbers, etc., and, list of emergency items to be procured and stored.

(ii)   Carry out 'Vulnerability Mapping' of the locality and update the vulnerability profile of the area at regular intervals.

(iii)   Prepare an 'Evacuation Plan' with priority for children, women, sick, aged and differently abled.

(iv)   Devise an 'Early Warning and Reporting System' with the list of 'nodal persons' across the different parts of its functional area and update their presence / status at regular intervals.

(v)   Prepare a 'Directory' of blood donors and youth volunteers, with contact address and ensure their status at regular intervals.

(vi)   Constitute a 'Disaster Management Cell (DMC)' at the local level   which will act as a 'Core team' for all the activities.   The Cell may consist of elected members, officials of the local governments and other local institutions, functionaries of Youth Clubs/ Mahila Mandals/ SHGs/ NGOs, and can be headed by the President/Chairperson of the local government. A specific room in the local government office may be earmarked for DMC. The DMC should keep the details of resource and facilities, vulnerability map, evacuation plan, early warning and reporting system, and, directory of blood donors and youth volunteers. Each member of the Cell may be assigned with specific responsibilities (Main and Stand-by) to avoid overlapping of functions and duplication of efforts. Each core team member will inform the nodal persons about the disaster plan and their expected assignments, on receipt of an early warning about disasters.

(vii)   Capacity building of different stakeholders needs to be organised at regular intervals. Training sessions for the following categories need to be organized to enable them to act in time of a disaster.

(a) At least one member from every family on preparation of emergency kit.

(b) At least one official from every local institution on documentation of vital information   necessary for disaster management and evacuation procedure of   important documents.

(c) Every citizen on disaster-specific drills.

(d) Every youth volunteer on application of first aid, carrying out Cardio Pulmonary Resuscitation (CPR), safe evacuation procedures, and, operation of stand-by power and communication equipment.

B.   During the Phase of Disaster:

The local governments are expected to perform some of the following functions during the phase of disaster.

(i)   Opening of a 24 x 7 emergency control room with necessary data about the resources and facilities, public addressing system, communication equipment, back-up power and team of responsible personnel.

(ii) Core team members of the DMC are to be available in the control room, round the clock, for continuous monitoring of all the activities during this phase.

(iii) Collect the field data from the nodal persons, verify the information, collate them and communicate the same to the Block and District administration.

(iv) All communications, both incoming and out-going, are to be channelised through a single point at the DMC.

(v) Convene an emergency meeting of the functionaries of all political, non-political and community based organisations to seek their support and co-operation in addressing the situation effectively.

(vi) Start a 'Community Kitchen' at an appropriate place for ensuring food to all those affected.

(vii) Ensure medical services are available to the needy at all times. Services of private hospitals and medical practitioners also can be utilised for providing round-the-clock medical services.

(viii) Co-ordinate the efforts and activities of government departments, NGOs, private sector and community based organisations.

C.   During the Phase of Post-Disaster:

During the post-disaster phase, the local governments are expected to perform the following.

(i) Ensure provision of basic needs like drinking water, food, clothes, utencils, etc. to the needy.

(ii) Regulate the availability of ration and cooking fuel and ensure their supply to every needy family.

(iii) Construction of temporary shelters and sanitary facilities at suitable sites.
(iv) Ensure regular supply of water purifying tablets to all houses in the locality.

(v) Ensure regular visits by the Health workers to all parts of the locality. Health workers may be assisted by trained youth volunteers.

(vi) Organise medical camps at different parts of the area at regular intervals. Even the services of private medical practitioners, nursing staff and para-medical staff can be ensured by the local government to organise medical camps.

(vii) Ensure uninterrupted supply of food and other services by the anganawadis. It will enable the local governments to reach up to children, adolescent girls, pregnant mothers and lactating mothers of the locality, as they need a special attention.

(viii) Thrust on restoration of livelihood assets like roads and infrastructure in the locality.

(ix)   Co-ordinate the activities of government departments, non- governmental   agencies   and community based organisations for providing livelihood support for the affected families and ensure their optimum benefit to all beneficiaries.

(x)   Provide psycho-social care to the needy persons, to enable them to get over the traumatic period.

(xi)   Restoring the education and other basic services to the citizens.

(xii)   Identification of beneficiaries for different compensations, through Grama Sabha.

(xiii)   Any other service depending upon the need of the situation.

Conclusion

An overview of the pre-disaster, disaster and post-disaster phases of disaster management undeniably portray the significance of local governments in overcoming the ills of the calamity, restoring their resources and recouping the system. Local governments are in a better position to understand the social vulnerability of natural and human-made disasters. In addition, they are expected to address the differential impacts of disasters on men, women, children, sick, elderly and differently abled. In this context, presence of an able, committed, efficient and pro-active leadership at the grassroots needs no emphasis. The local leadership needs to be empowered about their role and functions during the different phases of disaster management. However, they need to develop their skills to take up appropriate exercises through different phases. To address the disasters more effectively and efficiently, they are to be adequately supported by the central and state governments.

Local Governments have a unique role of ensuring 'co-ordination and convergence' of the efforts among the government institutions, non-governmental agencies, community based organisations, and other stakeholders. And youth, in whatever capacity they are, have an important role in disaster management. Their dynamism, energy level, pace of work, innovative ideas, modern strategies and pro-active approaches need to be properly channelised. Undoubtedly, there is no better political institution than the local governments to ensure that.

Dr. K Gireesan, Faculty Head, Panchayati Raj Institutions and Youth Affairs (PRIYA) Division, Rajiv Gandhi National Institute of Youth Development (Deemed University u/s 3 of the UGC Act, 1956), Ministry of Youth Affairs and Sports, Govt. of India, Sriperumbudur-602 105, Tamil Nadu.   Mob: 09445400855, e-mail: gireesankollengode@gmail.com.

LOCAL GOVERNMENT AND DISASTER MANAGEMENT

Dr. P Hiranniya Kalesh

Background

Disaster is a global phenomenon. Devastations in the aftermath of Tsunami, earthquakes in Gujarat, El Salvador and Peru, floods that ravaged many countries in Africa and Asia, the cyclones in Orissa and Madagascar are global events. What is disturbing is the fact that despite massive global efforts and technological breakthroughs, death and devastations are on rise instead of being kept under check. While the year 2001 alone caused at least 25,000 deaths around the world more than double the previous year, the casualty during the Tsunami has been more than 10 fold. Another worrisome fact is that the impact of such disasters is felt more severely in developing countries as they have a large vulnerable population. Since 1991, two-third of the victims of natural disasters is from developing countries, while just 2 per cent are from highly developed nations. Thus, people with limited resources and poverty in developing countries are more vulnerable to natural disasters. The continent of Asia is quite vulnerable to disaster strikes. Between the years 1991 to 2001, the Asia has accounted for 83 per cent of the population affected by disaster globally.

Within Asia, as high as 25 per cent of deaths due to disasters occur in India, on account of its size, population and vulnerability. The unique geo-climatic conditions of the Indian sub-continent make this region among the most vulnerable to natural disasters in the world. Floods, droughts, cyclones, arthquakes, landslides and Tsunami have been ravaging the country very frequently and of late with higher intensities. In the decade 1990-2000, on an average, about 4344 people lost their lives and about 30 million people were affected by disasters every year. The loss in terms of private, community and public assets is astronomical. The loss in Gujarat earthquake has been put together to the tune of Rs. 11,500 crore. When a realistic estimate of the cost of damage comes from Tsunami affected areas, it would be many folds than what happened in Gujarat. In short, the frequency as well as intensities of their occurrences makes India as the global capital of natural disasters.

Much has been written about decentralisation and the civil society institutions-local governments interface, although the political character of the process, particularly in developing countries, has often been underestimated. "Decentralization and participation are both means of bringing a broader section of a given population into public decision-making processes - in a role of informing and/or controlling those processes" (Ribot, 1999: 1). The assumption is that greater participation in public decision making is a positive good in itself, and/or that it can improve efficiency, equity, and, especially important in the context of local institutions involved in Disaster Management, development and resource management. By bringing government decision-making closer to the citizenry, decentralisation is widely believed to increase public sector accountability and therefore effectiveness, whilst contributing to the strengthening of a genuinely people-centred type of democratic culture.

Panchayats, as a constitutional grassroot unit of governance in India, can play a prominent role in managing disasters at the local level. Moreover, they can be an effective institutional arrangement to deal

appropriately with the emergency responses within its jurisdiction. Panchayats can certainly strive to manage disasters efficiently because of their proximity to the local communities and better information of local issues. If we do not sensitise the community on disaster (Natural) aspect, there could be large scale disaster as has happened in 2004 Tsunami. Tsunami was not very known word in the dictionary of common person before 2004, had we educated the masses on Tsunami before thousands of lives could have been saved from this disaster. People rushed to seas before Tsunami as the sea level fell down. Had they been warned that before Tsumani the level of water falls in the oceans, people would not have ventured in to seas in hope catching fish and other valuables from the bottom of seas, out of curiosity. So no programme can succeed until and unless the people for whom it is meant are involved.

National Disaster Management Act

National Disaster Management Act was passed in the year 2005. It was the first positive step in the country towards Disaster Management. A National Disaster Management committee was formed, chaired by the Prime Minister of India. All the states in India have to pass respective State Disaster Management Acts. Disaster Management Policy constituting the guidelines were also be prepared for rescue and rehabilitation in the post-disaster period. A few states have worked in this direction. Gujarat is the first State to have the Disaster Management Act and the Disaster Management Policy.

Panchayats and Disaster Management

Scientific Management of Disasters is possible only with close coordination between various government agencies/departments, and this coordination needs to exist from the grassroot levels. Panchayats being the basic structure of administration of the government in the country, their contribution plays an important role in Disaster Management. Panchayats help in managing Public Private Partnership (PPP) projects in disaster-affected regions. There has also always a felt need of capacity building of these PRIs.

Panchayat is an important body which can aware and sensitize human resources available at grassroot level. By involving the villagers, it can carry out the developmental and rescue activities. It can also play a major role in managing the disaster in the locality for the safety of the people. Moreover, they can be effective institutional arrangement to deal appropriately with the emergency responses within its jurisdiction. Panchayat can certainly strive to manage disaster efficiently because of their proximity to the local communities and better information of local issues. The role of Panchayati Raj instructions is significant, due to their grassroot presence; they are in better position to assess the risk and vulnerability and are also be able to take the step to mitigate the disaster at the local level.

The 73rd and 74th Constitutional amendments recognise panchayat raj institutions as institutions of self government. The amendment also laid down necessary guidelines for the structure of their composition, powers, functions, devolution of finances, regular holding of election and reservation of seats for weaker sections including women (Panchayat, 2009).

The enactment of National Disaster Management Act, 2005 and formation of the National Disaster Management Authority (NDMA) in 2005 was a big step forward in the area of disaster management in the country. It is a major step for initiating the institutional approach in more integrated way. The national act envisaged that all state governments to enact similar acts and form guidelines and update their relief codes and convert them into disaster management code.

Review of available literature shows that there is little role built in, of PRIs and Nagarpalikas in Disaster Management. Even the national act only mentions the term 'Local Bodies', which includes the Gram Panchayat, Middle tiers, Zilla Parishad, Town Panchayats, Municipalities and civil society organizations. The parliamentary and legislative assembly debates on this issue speak a lot about the involvement of PRIs and the Act includes that the Chairperson of Zilla Parishad will be co-convenor of District Disaster Management Committee/Authority, which the state act should focus on. But in urban areas, there is little or no involvement of municipalities.

Provisions under National Disaster Management Act, 2005

National Disaster Management Act, 2005 provides a broad framework for empowering local authorities in Managing Disasters. The term 'Local Authorities' in Disaster Management Act, 2005 in Sections 30(1), 30(2) and 30(3) of the Act highlights the role of district authority in preparation and execution of Disaster Management (DM) plans for mitigation, preparedness, response, relief, restoration and reconstruction activities.

Section 31(3): Outlines preparation of District Disaster Management Plan by the District Disaster Management Authority (DDMA) in consultation with local authorities and municipalities.

Section 41 (1d): This Section of the NDMA is devoted to the 'Local Authorities'. It also highlights their role in 'carrying out relief, rehabilitation and reconstruction activities in the affected area in accordance with the State Plan and the District Plan.

State Level Disaster Management Acts/Rules and Panchayati Raj Institutions

Andhra Pradesh

State Government has passed State Disaster Management Rule in accordance with National Disaster Management Act in August, 2007. State Disaster Management Authority (SDMA), State Executive Authority and District Disaster Management Authority (DDMA) are constituted under various sections of National Disaster Management Act. The rule comes under the revenue department and in the SDMA, the Minister for Panchayati Raj is a member and implementation and monitoring of disaster mitigation works goes to revenue department. However, at the district level, Zilla Panchayat and DRDA have significant role in planning and mitigation phase.

Kerala

In Kerala, the government constituted a Department of Disaster Management in 2005, but still the Disaster Management functions remain with the Revenue Department. The State Govt. has not yet decided to involve local bodies in Disaster Management functions. The State Govt. has also not yet constituted any authority to carry out Disaster Management functions under the new department.

Though Kerala Panchayat Act, 1994 in its third schedule includes (1) Protection of relief centres, and (2) Conduct works relating to natural calamity and compensation of damages caused to the assets to be done by respective Panchayats, all the work relating to disasters and major accidents still remain with the Revenue Department. This has meant that the involvement of community and panchayats in providing relief and rehabilitation is minimal.

Tamil Nadu

The Government of Tamil Nadu has formulated the Tamil Nadu Disaster Management Policy (TNDMP) for the management of disaster in the State. The aim of TNDMP is to reduce the negative impact of all kinds of disasters through vibrant disaster management machinery, which includes:

(a) To minimize the loss of lives, property and critical infrastructure.

(b) To see that economic and development gains made by the State are not lost due to disasters.

In Tamil Nadu, Disaster Management is the responsibility of the revenue department. Even though no role has been mentioned for PRIs, the Disaster Management Policy has provided with a component of capacity building of all local body elected representatives under Community Based Disaster Risk Management (CBDRM) and suggested to involve CBDRM component in all developmental programmes.

Gujarat

Gujarat Disaster Management Act is one of the most well planned and structured Acts in the present days. In this Act, the local authority is enjoined upon to carry out relief operations, reconstruction and rehabilitation work. The local authorities are also assigned to prepare a Disaster Management plan for their

local area. Gujarat government has also outlined specific roles and responsibilities of Rural/ Urban Local Government Institutions and other Civil Society organizations.

The Gujarat Government, in order to build the capacity of the local authorities, has also included undertaking training programmes to strengthen coping mechanism and skills of representatives from government departments, municipal bodies, fire officers, and other stakeholders by seven municipal bodies. It has also formed a Gujarat State Disaster Management Authority, which is chaired by the Chief Minister of Gujarat. The Government has also established Gujarat State Disaster Management Institute under Gujarat State Disaster Management Act, which located in the premises of Sardar Vallabhai Patel Institute premises. The Gujarat State Disaster Management Policy aims to establish necessary systems, structures, programmes, resources, capabilities and guiding principles for reducing disaster risks in the state of Gujarat.

Bihar

Bihar Disaster Management Act provides enough space for local governments to act in disaster mitigation process. Under this Act, each Municipal Local Government and Panchayat to prepare a Disaster Management Plan to meet adequately the requirements of the locality concerned in their respective jurisdiction. They shall be responsible for effective implementation of the plan drawn up by them in this behalf - Sec. 8(1) & (3).

Uttarakhand

The Uttarakhand State Disaster Management Act (USDMA) envisaged the following roles for Panchayats and other local governments in Disaster response stage.

- To assist the district magistrate in preparation of disaster management plan for the district - Sec. 22 (1);
- In disaster affected areas, local authorities to assist the USDMA, the State Commissioner for Disaster Management and the District Magistrate; and
- To provide training to the staff and ensure that all building in their local area comply with laid down specifications - Sec. 21 (1).

The Odisha Experience

During the floods in the Sambalpur Municipality, the Chairperson and Councilors of Sambalpur Municipality were involved in the relief and rehabilitation work, which was followed by their involvement in damage assessment operation. They also helped in developing a convention as part of which, the Chairperson was kept informed of relief and rehabilitation activities by Executive Officer regularly. It was one of the well-coordinated and structured disaster and relief activity carried out in recent times.

PRI in Disaster Management in Odisha

During the floods and landslide in Koraput district in 2006, the disaster management teams under panchayats actively participated in search, rescue and relief operations. These teams rescued the villagers of Durgabhatta village of Jeypore block and distributed relief. Immediately, after the floods, disaster management committee meetings were also convened at district, block and panchayat levels to manage the flood situation. Role of PRIs during disaster management in Odisha is commendable.

Involving PRIs in Disaster Management

Evidently, there are stronger reasons why decentralization should be a preferred objective in all disaster management strategies. In this context, role of the PRIs in disaster management can be argued based on four key ingredients of disaster management; preparedness, response, recovery and mitigation

Preparedness: It is a multi-sectoral approach in which the panchayats and the communities can come handy. As the Panchayat has better knowledge of local safe and vulnerable areas, clear understanding of the hierarchical local system and circumstances, they can easily assign the works to the employees (those who engaged in disaster management programme) and the volunteers to do the preparedness work mainly the preparedness planning, warning, information and evacuation.

Disaster Response: The Panchayats is best suited in this situation as it can help in setting up control rooms, putting the contingency plan in action, issuing warning, rendering medical aid and evacuation etc.

Disaster Recovery: Recovery is most critical of disaster management process. The activities undertaken during this phase are designed to return the affected community to normal condition existing prior to the advent of disaster. The panchayat can help in collecting the information on the needs of local people, the real assessment of the damage. It can also be of crucial use in terms of providing the basic needs that the affected people need to survive and recover such as by constructing temporary makeshift shelters. Also the PRI has more advantage s in distributing compensation to the people on partial or full damage house and other losses at a short notice. Besides, the LSGt can be handy in providing psychological counselling for the traumas. Further, the local government can help the affected people get back to normalcy through reconstruction programmes.

Disaster Mitigation: In addition to the physical measures, mitigation also aims at reducing the economic and social vulnerability. The panchayat can come handy in all these activities. They can participate in housing, plantation, education or the training of homebuilders to improve the quality and performance of houses,

financial incentives as an inducement to communities to use hazard resistant construction technique and insurance of their properties.

Strengthening Local Government's Involvement in Disaster Management: Tools and Measures

For capacity building of Panchayats in Disaster Management, the communities of Panchayat along with the elected members need to undertake a location specific training programme through Community Based Disaster Preparedness activities. Using participatory approach, they should primarily focus into identifying:

* The socio-economic and geographical status of their area.
* Possible Hazards in their area.
* Hazard specific local resource inventory.
* Standard Operating Procedure (SOP) with clear-cut responsibilities among the communities and elected members of the Panchayat.
* Training of elected members of the local government and communities in hazard specific search and rescue.
* Periodic evaluation by Panchayat on the floor of Community based mock drills besides periodic updating the information base.

Various Issues related to Disaster Management

The main issue at present lies with devolution of Disaster Management powers to Local Government Institutions. Most of the States where Disaster Management Act is prevailing, it is still lying with Revenue Department only. Only two states (Gujarat and Maharashtra) have conducted special capacity building programmes on Disaster Management for the elected members of LGIs. It is also very essential in present state that an orientation be given regarding the role of Local Government Institutions at various levels. Some of the important roles in which the Local Government Institutions could be included are Disaster Vulnerability Mapping, Seasonal Disaster Mapping, Epidemic Mapping, Training of Volunteers to conduct mapping, Identifying safer areas for rehabilitation and Adopting eco- friendly approaches.

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YOUTH-LED RESPONSE TO TSUNAMI IN PARAMANKENIKUPPAM VILLAGE,

KANCHIPURAM DISTRICT, TAMIL NADU

Rex Joshwa and Karthigeyan

Introduction

Restless Development is a youth-led development international agency with a mission of placing young people in the forefront of change and development. We are present in 11 countries of the world spread across Africa, Asia, Australia, America and Europe. With more than half the population in the developing world being young people, the potential of young people is the driving force of Restless Development.

Restless Development works for young people in the thrust areas of:

- Young People in Leadership roles

- Sexual Reproductive Health and general health
- Life skills and livelihood opportunities

The approaches taken by Restless Development to achieve these objectives are:

- Direct delivery - to young people providing information, resources and expertise using pillars like classroom lessons, club meetings, resource centre, rallies, street theatres, fairs, workshops, songs, signature campaigns and other country-specific non-formal education techniques.

- Working through partners - in the areas and fields where our direct intervention is not/will not be feasible.

- Pushing for change - advocating at all levels that the needs for young people might be met appropriately and in a timely manner.

- Sharing and learning - good practices, methods, policies, methodologies and frameworks across the development sector among all stakeholders.

- Building a resource of young people - who will form the next generation's leadership.

This paper elucidates the youth-led response and the comprehensive rehabilitative efforts of Restless Development (which was then known as Students Partnership Worldwide India) India towards the December 2004 Tsunami, which ravaged many coastal areas of South and Southeast Asia.

Immediate response

- Restless Development responded to the Tsunami immediately by providing relief materials and funds for 200 households. All this resource had been raised by the team of volunteers and clubs from schools around Vellore.
- A week after the tsunami, Restless Development partnered with Uthavum Ullangal in sending a team of volunteers to participate in providing relief materials in Nagapatanam, which was one of the worst-hit districts of the tsunami in Tamil Nadu.

Restoration

- In January 2005, Restless Development adopted one of the tsunami affected villages called Paramankeni Kuppam which is located on the East Coast Road, Kancheepuram district TamilNadu. This was done in connection with the District Welfare Officer and Education department of Kanchipuram.
- Restless Development roped in volunteers from IT companies in Vellore and along with their staff team went and camped in Paramkenikuppam and undertook cleaning of the village.
- 3 teams comprising 12 volunteers each were formed. One team was commissioned to go and stay there and do various activities to facilitate the process of bringing in normalcy. This process lasted about three months. In all these the young people of the community were actively involved. Involving them in

physical activities like cleaning was seen as a way of bringing them out of the trauma and students were taught art and craft.

- Restless Development team volunteers cleaned the local school and painted them with attractive pictures and also volunteers made house visits to get the children back to school. Sensing the need for sanitation and personal hygiene, the team also conducted class room lessons on life skills, sexual and reproductive health, sanitation and personal hygiene.
- As the first major step to direct restoration, Restless Development volunteers cleaned the community toilet and created awareness on the importance of using toilets.
- While the children slowly returned to school, in order to resume their academics, Restless Development conducted tuitions for the children and provided them with nutritious food like egg and chickpeas to sharpen their minds

Rehabilitation

As a next step towards aiding to restore normalcy, Restless Development found that the young women in the community needed an additional means of livelihood to engage during their free time. So women self help groups were formed and they were trained in various crafts including shawl making, designing wooden stools and crosses with Italian tiles, soap making, Rice bags and so on (2005 Feb. to 2010 May). With funds made available from individual donors and proceeds from a dance ballet event, a SHG centre was built in the year 2006. This centre served as a hub of all the SHG income supplementation activities. Also in the same year in partnership with NASSCOM foundation the SHG centre began to house the village knowledge centre. This comprised a computer with internet connection and literacy lessons for the unlearned. The Adult literacy pack comprising of Azim Premji Foundation CDs and the Microsoft unlimited package has now brought a distinction of 100% literacy to the village. In order to bring further usage to the SHG centre, gym equipment have been set up in the centre for young boys to use during the evenings.

Conclusion

Thus it could be seen that although Restless Development has not focused on providing a lot of relief materials, the knowledge, skills and behavior change which Restless Development had imparted over the years in this small coastal village talk more about a comprehensive disaster response often missing in programmes designed for such purposes. Restless Development's intervention is holistic, sustainable and need-based in providing solutions most sought after by the communities in their moment of despair.

Rex Joshwa, Monitoring & Evaluation Coordinator, Restless Development India, New Delhi (formerly Students Partnership Worldwide India).

Karthigeyan, Asst. Programme Coordinator, Restless Development India, New Delhi.

THE ROLE OF NGOs IN DISASTER MANAGEMENT –

AN EXPERIENTIAL LESSON

A Amala Jeya Rayan, SDB and M Casimir Raj, SDB

Introduction

Disasters have become a part of human history. The impact and magnitude of disasters is greatly increased when people are not prepared for them. Experience shows that people are often taken aback with the sudden attack of natural or created disasters. There are many different agencies that come to the rescue and rehabilitation of the victims of disasters. We classify them broadly as governmental and non-governmental organizations (NGOs). There are also individuals, both at national and international levels, who reach out their hands to the victims. This paper presents the role of NGOs in disaster management. This is based on the experience of an NGO named Don Bosco Anbu Illam (DBAI) located in Salem and involved in the tsunami relief and rehabilitation activities in Tharangampadi in the District of Nagapattinam. The District is located almost at the mid-point of the Tamil Nadu coast. The land in this coastal line projects into the Bay of Bengal, making it highly vulnerable to cyclones.

NGOs generally choose their target groups, their area of intervention and plan their strategies. Accordingly there are those who work predominantly or exclusively with women, children, senior citizens, terminally ill patients, etc. However, this is uncommon for the NGOs who only intervene at the time of disasters. Regardless of an NGO's normal target groups and activities, it is the duty and responsibility of every NGO to reach out and render services to the victims of disasters by way of relief, rehabilitation and reconstruction activities.   Korten(1987) points out that many of the NGOs such as Catholic Relief Services, CARE, Save the Children, BRAC (Bangladesh Rural Advancement Committee) and World Vision began as charitable relief organizations, to deliver welfare services to the poor and unfortunate throughout the world. Many of them originally focused on natural disaster and refugee situations relating to floods, famine, and war. The focus was on meeting immediate needs through direct action such as the distribution of food, the fielding of health teams, and the provision of shelter. It is the duty and responsibility of the NGOs to be prepared with disaster management programmes. They should also empower their target groups to be prepared to face new disasters without loss of lives and with a minimum loss of assets. They also have the duty to lead their target groups to reach out to the disaster affected people and places. This paper discusses the different stages through which an NGO could intervene in the process of disaster management and disaster preparedness.

India's Disaster Profile

The World Health Organization (WHO) defines disaster as "an occurrence that causes damage, economic disruption, loss of life and deterioration of health and health services on a sufficient scale to warrant an extraordinary response from outside the affected community or area of effect (WHO, 2011)". Disasters happen when the forces of a hazard, which may be an extreme disruptive event or events, impact on the physical and socio-economic vulnerabilities of an area and overwhelm the ability of the affected community to cope on its own.

The duty and right of the NGO's participation in disaster management in India arises from India's disaster profile. About 8% of India's land is prone to cyclones and both Southern and Eastern coastal areas experience cyclones every year. About 12% of land is vulnerable to floods; the Ganges in the North and the Brahmaputra in the North East cause severe floods every year. More than half of the land (56%) is vulnerable to earth quakes. More than one-fourth of the land (28%) is vulnerable to drought which is a prolonged and slow disaster (WHO, 2011). The increasing number of farmers' suicides can be attributed to this disaster. Mass movements and land slides have also become annual features during rainy seasons.

Besides these natural disasters, there are also other disasters in the form of diseases, accidents, wars and terrorism. Epidemics, bomb blasts and attacks, riots, communal violence, road, rail and air accidents, etc., fill the pages of newspapers every day. In this context of an unending flow of disasters, it is the duty of every NGO not only to get involved after the event to provide relief and rehabilitation services but also to educate the people in disaster preparedness, mitigation, rehabilitation and reconstruction.

The Tsunami 2004

The devastating Tsunami of 2004 was an event that shattered lives and livelihoods. About 16,000 people died of which 6065 were from Nagapattinam coasts**.** Out of these, 1776 were children (887 male, 889 female), which is approximately one-third of the total dead, and 2406 were women (Radhakrishnan, 2007). The tsunami left the entire coastline devastated in Nagapattinam district. Around 73 habitations in 38 Revenue Villages and 5 Taluks were badly affected.

Table 1 : Extent of Damage Caused due to Tsunami in Nagapattinam District

Total Area	2.7 Lakh Hectares
Total population	14.88 lakh
Urban Population	3.3 lakh
Rural Population	11.58 lakh

Affected Population	1.96 lakh
Fishermen	87 per cent
Agricultural Laborers	5 per cent
Traders	5 per cent
Tourists/Pilgrims	3 per cent

Nagapattinam District alone accounted for 76 per cent of the total deaths of the entire state and was the worst affected district in India (Radhakrishnan, 2007). The following comparative table gives an overview of the devastation:

Table 2 : Overview of the Devastation due to Tsunami

Details	Tamil Nadu	Nagapattinam	Per cent
Human Loss	8018	6065	76
Missing*	1126	791	70
Cattle Loss	17404	11864	73
Injured	3446	1922	56
No. of Persons Evacuated	4.70 lakhs (470, 000)	1.96 Lakhs (196,000)	42

*Missing persons have since been reconciled with the dead and the confirmed death toll remains at 6065 (Radhakrishnan, 2007).

Intervention of DBAI in Tsunami Relief and Rehabilitation

Don Bosco Anbu Illam (DBAI) is an NGO working for the street and working children in the District of Salem. The NGO has three shelter homes and several centres in the city of Salem and Namakkal. DBAI has a good network of sister concerns both at the state and national levels. The outreach of this network is widely known in the nation. On the afternoon of December 26, 2004, the core team of the organization held an informal meeting and decided to send a pilot team to the most affected district of Nagapattinam to assess the situation. The information provided by state television and radio had to be verified by the team. There were also phone calls from the public, and NGOs who described the magnitude of the destruction caused by the

tsunami. The NGO had to immediately plunge into mobilizing resources for the relief measures. The DBAI's intervention can be explained in the following phases.

Initial Phase of Intervention

The initial phase of intervention could be explained in the following four stages:

- ➢ Verification of Information
- ➢ Pilot Team Visit
- ➢ Informal Assessment by the Team
- ➢ Intervention Strategy

The pilot team reached the spot on the same day in the evening and alerted DBAI of the magnitude of the destruction and the need to get involved at the earliest time possible and without further delay. Upon this information, DBAI plunged into relief and rehabilitation activities. The next task was to plan the intervention strategy. Immediate relief measures had to be undertaken. It consisted of burning the dead, providing medical care for the wounded and infected, setting up of temporary shelters and provision of food, water and clothes. Later would be rehabilitation services which would enable the sustainable development of the people. This consisted of permanent solutions to life and livelihood. The above mentioned relief and rehabilitation services needed resources. So the next was mobilization of resources.

Mobilization of Volunteers and Resources

The next task was to mobilize volunteers and the required resources. The team needed volunteers for two different activities at different places.

(a) Volunteers for Rescue operation at Nagapattinam.

(b) Volunteers for the Mobilization of Resources for the victims.

Resources required were of three types:

(a) Human Resources

(b) Material Resources

(c) Monetary Resources

There were about forty full time volunteers and twenty part-time volunteers who agreed to join the relief activities for a period of one month. There were about twenty volunteers who were responsible for mobilizing resources. The volunteers who served at the disaster spot were motivated and trained for a few hours. They were given medical precautions for their own safety.

Rescue and Relief Operation

Rescue operations included rescuing the dead, identifying bodies and burying the dead. This was to be done at the earliest time possible to avoid the spread of diseases. Over the first two days, the volunteers were engaged in this task. Next the sick and wounded needed to be rescued and provided with medical treatment. Following this, the homeless had to be given food, clothes and shelter. Food and water were distributed to the people. The homeless were immediately put up in tents and later moved to temporary shelters. The people had to be provided with clothes. Used clothes were not appreciated by the people and so new clothes had to be distributed to them.

Rehabilitation Operation

The rehabilitation operation had to include the following three contents:

(a) Resumption of Water and Sanitary Services
(b) Repair and Reconstruction of Houses
(c) Restoration of Livelihood

The rehabilitation process had to begin with provision of basic services such as water and sanitation facilities. Providing good drinking water is necessary for the prevention of diseases. So new water lines, pipes, tanks and motor pumps had to be installed near the temporary shelters. At the same time sanitary services also had to be provided. Construction of toilets and bathing facilities had to be carried out to ensure the health of the community. Besides repairing the old pumps and laying new water lines for a few villages, new water tanks were also built in three villages in consultation with the elected panchayat and Tamil Nadu Drinking Water Board.

Repair of the damaged houses was the next task of the NGO. The youth were trained to carry out repairs and they were paid for their services. Students were engaged in the repair of electrical wiring and electrical appliances. Since the Government of India decided to move the village far from the sea to prevent loss of lives in the case of future disasters, this activity was not completely carried out.

The restoration of livelihood was the next stage of the rehabilitation process. The fisher folk had lost all their boats and nets. Some of them were afraid and were reluctant to go into the sea to fish. This had to be tackled. First of all, we began with repairing the boats and engines. Some of the local fishermen and youth were taught to repair boats and engines. The fishermen showed great interest in learning how to repair boats and engines. Besides repairing the old boats and engines, those who had lost their boats were given new boats. A boat was given to every four fishermen. The village panchayat were involved in deciding to whom the new boats were to be given. They had to register the boats with the fisheries department and submit a copy of the same to the NGO. They were also given nets. The women and the others engaged in allied jobs were given tools to continue their business.

Other Groups of People Affected

Fisher-folk were not the only group that were affected; many other groups were also affected. It was the task of the NGO to identify these groups and assess the impact of the disaster on them. Around 25,000 people were rendered homeless. There were several thousands who had lost homes and properties. There were several orphan children due to tsunami. Orphans and single parented children had to be taken care of, as there was nobody to take care of them. The children did not want to be placed in children's homes away from their own villages. They had to be taken care of within the village community. There were also non-fishermen groups whose livelihoods were dependant on fishing who were affected, such as vendors and allied technicians. Some farmers were also affected by the tsunami as their cultivable lands had become salty and hence uncultivable.

Networking with Other Organizations

It is impossible for an NGO to be able to provide all the required services to the affected owing to lack of expertise in the fields, lack of resources and time constraints. The people cannot be kept waiting. Different relief measures had to be carried out simultaneously. So certain activities were delegated to other NGOs with more expertise and the required resources. Accordingly medical services, psycho-social support, the building of new houses, laying of roads and construction of bridges were left to other NGOs.

An NGO coordinating team was constituted by the representatives of different NGOs. Since several NGOs had arrived on the spot for rehabilitation activities, it was felt that an NGO coordinating team had to be created for better understanding among the NGOs and to avoid repetition of activities or the neglect of any villages or activities. This team met every month to update themselves of developments and to plan for further activities.

Cash for Work

Since the people were without any occupation, they became dependent on the governmental and non-governmental organizations. The only way to give them back some form of independence was to involve them in the reconstruction work. So a programme called 'cash for work' was initiated, through which the able people were employed in the community reconstruction work. Under this programme, the broken canals and lakes were rebuilt; the roads to villages were re-laid and several cleaning activities were carried out.

Psycho-Social Support

It should be understood that it was not exclusively material and livelihood issues which were addressed. The mental pain and psycho-social problems of the people were also paid attention to. The loss of lives of close family members and the loss of properties and livelihoods had caused severe depression in many. They were unable to come out of the shock caused by the disaster and the subsequent destruction. For these people, psycho-social support services were provided by the experts. There were both lay counselors and professional ones. The former identified serious cases and referred them to the professional counselors for further counseling and treatment. The NIMHANS (National Institute of Mental Health and Neuro Sciences) from Bangalore also offered their professional services to the victims.

Youth Oriented Programmes

DBAI's focus groups are children and youth, so there were special focused activities organized for them. The following programmes were designed for the affected youth;

Tutorial Centres: The youth who had not completed their education were enabled to prepare and appear for exams as private candidates. The private tutorial centres were expensive and the poor youth could not afford them. Because of this facility, the youth who had not completed class 10th and 12th, appeared for examinations. Completion of this class was necessary for them to continue their higher education or gain access to government technical education, and further more it was also required in order to access government loans for educational or entrepreneurial endeavours.

Vocational Training: Besides the general education, the youth were also given a chance to learn a trade. The youth were taught boat repairing skills, engine repairing skills, electrical skills, plumbing, driving, welding, tailoring, two-wheeler and four wheeler mechanics, etc. Knowledge of these trades created a chance to obtain an alternate income in times of need.

The young people of the affected community were identified and motivated to restore their livelihood activities. When the rest of the community were still downcast and depressed due to the shock of the loss of life and properties, the young people showed great interest in reviving the occupational activities at the earliest time possible. First, it was necessary to meet the immediate and urgent need of resources required for their daily lives. Secondly, the rationale to involve young people is to provide an opportunity for them to learn how to respond to disasters. The young people realized that the damaged boats and other fishing equipment needed to be repaired. The youth came forward to learn the technical skills, involved in the repairing of engines, boats and other fishing equipment. This involved imparting the specific skills to the youth who would carry out the task. The young people were also trained to repair the electrical appliances in the village. The young women were trained in dress making. In this way a section of the community was prepared to meet future disasters, leading the community towards disaster preparedness.

Polytechnic College: The above two activities of education and vocational training mainstreamed several youth. The youth not only of fishing community were looking for an opportunity for higher education which would provide employment opportunities. Majority of youth of the area were unemployed. Tharangampadi town had a College of Arts and Science and two Teachers' Training Institutes. Though many youth from the locality were educated, they were still unemployed. And DBAI decided to opt for a Formal Technical Training Institute to offer Diplomas in those trades that would offer employment. This resulted in opening a Polytechnic College in 2008. Youth from tsunami affected areas and poor and deserving youth were given preference in the first three years. The technical institute is serving the local youth even today.

Community Youth Clubs: The youth were formed into youth clubs. They were trained to organize themselves and operate as constructive youth groups. These youth clubs were formed with two objectives: youth development and youth for development. The youth themselves had to develop their own capabilities and skills and also had to contribute to the development of their own communities. The youth were trained to be socially responsible and to take up the issues of their own community. An active youth group was an extra support for the tsunami affected villages.

Children Oriented Programmes: Another important area of intervention was to care for the children. The adults were busy with rebuilding their lives. The children were out of school and it was a concern for the community. DBAI, having expertise on the needs and rights of children, took care of the children through the following programmes:

> (a) Back to School Drive: Even after three weeks, the children were still out of school. It was decided that the children could be collected and motivated to attend regular schools. The children had still not overcome the shock and they did not want to leave their parents. The team and the teachers launched a programme called 'back to school drive'. The team collected the children from door to door. The parents were counselled about the safety of the school for the children. The children also needed educational materials such as text books, notes, bags and uniforms as they were lost in the

disaster. So DBAI decided to provide these materials to the children and to restart their classes. The young women who learned tailoring, prepared the children's uniforms.

(b)   Supplementary Education: The children also needed to be kept busy and happy after school hours. And so, the children were engaged in a supplementary education programme. This programme contained numerous features such as nutrition provision, health care, games, competitions, walks, picnics, coaching classes and preparation for examinations. There was also psycho- social support offered to any children who needed extra care and concern.

(c)   Child Rights Clubs: The children were initiated into child rights clubs. These clubs imparted child rights education to children, and created awareness of the same among the elders. They acted as watch dogs of child rights in the village and in the school. These clubs also identified vulnerable children in their community and brought them to the attention of the elders, teachers and NGOs. The weak and needy children were thus identified and cared for.

(d)   Community Based Children's Home: There were several children who had lost one or both of their parents in the tsunami. These children could not simply be shifted to a pre-existing child's home as they were not ready to leave their village. The single parent children were left to fend for themselves when their parents were away either for fishing or vending activities. The solution was in a community based children's home, where the children were cared for during the week and made to attend school. They could visit their loved ones during weekend. The parents or relatives could also come and visit them any day. The home was inaugurated in 2006 accommodating about 40 children. The children were enrolled in the Government School nearby. The children were allowed to go home on weekends or the parents or the guardians were allowed to visit the children. The entire expenditure of the home was met by the Don Bosco and CESVI, an Italian Funding Agency. The home is taking care of orphan and poor children even today.

(e)   Family Based Care: There were children who were sick and anaemic, living with their parents. There were also children of sick and aged parents, who needed support for medicine and education. Due to poverty they were unable to provide a decent home and nutritious food. Shifting the children to children's homes however was not the solution because they had parents and family. The right to a family is one of the rights of the child. Therefore, the need was to enhance the family condition so as to to help the child in the family. To take care of such children, we started a programme called 'Family Based Care'. Under this programme, the family was supported with help such as repair of the house, and the provision of clothes, utencils, regular supply of nutrition and medicines, etc. Thus the family was supported to take care of the child in the family.

Linking Governmental and Non-Governmental Services

Besides the services that were provided by the organization, there were many other governmental and non-governmental organizations that offered several related professional services. The people had to be informed of these services and especially of the government compensations for those who lost their dear ones, properties, etc., as they had to register to avail themselves of such compensations. The students could also avail themselves of special exemptions from educational fees. The sick were offered free medical treatment and those who lost their homes in the tsunami were offered new houses. The orphaned children were offered a financial deposit to the guardians who cared for them. All this information had to be passed on to the concerned persons, who then had to register to avail of the benefits. So the organization linked the people with the government programmes to avail of the offered help and support. The people were also referred to other NGOs that were offering specialized services. For example psycho-social help was offered by NIMHANS from Bangalore. The women groups were offered special funds for their entrepreneurship endeavours.

Youth in Disaster Management

The involvement and intervention of the NGO for the victims of the tsunami was a great experience of being with the people. Among all the activities, the target group of the NGO namely children and youth were very well cared for. The project was named as 'Protection and Promotion of Child Rights'. Along with many other activities, the young people were empowered through programmes such as Children's Day, Youth Festival, Sports Meet, Talent competitions, Cultural Fest, picnics, meetings, trainings, summer camps, vocational and career guidance, etc.

Since the organization was already working with young people in Salem, it was rather easy to mobilize youth as volunteers to reach out to the afflicted victims. Being a specialized organization for the youth, they were given a special focus. The youth participated actively in the whole process of rehabilitation. They were not mere beneficiaries but participated as collaborators in the different programmes. The youth were trained in disaster preparedness. They were given training in first aid, barefoot counselling and in disaster management. The preparedness of the youth for disasters is a great strength to the local community.

Conclusion

It is the duty of every NGO to be ready and be prepared to reach out in times of emergency such as disasters. There is no reason that one can exempt an NGO from this responsibility. Whatever is their mission and vision, every NGO has an important role in preparing for, and in the mitigation and management of disasters. Every NGO should prepare its target groups towards this responsibility. Relief efforts remain an essential and appropriate response to emergency situations that demand immediate and effective humanitarian action. Such situations may forever be a part of the human experience as there will always be individuals within any community whose circumstances are such that they depend on some form of welfare assistance

(Korten, 1987). But in the wake of development sciences, pursuing sustainable development as a goal, little attention is paid to relief and welfare activities on the pretext that they offer little more than a temporary alleviation of the symptoms of underdevelopment. However, it should be reiterated that relief and welfare should always precede development activities.

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A Amala Jeya Rayan, SDB, Research Scholar, Gandhigram Rural Institute (Deemed University), Gandhigram.

M Casimir Raj, SDB, Research Scholar, Department of Applied Social Studies, National University, Maynooth, Ireland.

DISASTER MANAGEMENT – RESPONSE, REHABILITATION AND RECONSTRUCTION

(Experience through Involvement in Relief work during Tsunami 2004 at Nagapattinam)

Dr. Eugine, SJ

Introduction

On 26th Dec 2004, Tsunami struck the coastal areas of India, Indonesia, Malaysia, Maldives, Myanmar, Somalia, Sri Lanka, Thailand causing enormous loss of lives and property. It also caused deaths in Bangladesh, Kenya, Seychelles, South Africa, Tanzania and Yemen in small number. Australia, Madagascar, Mauritius, Oman, Reunion (French DOM), Singapore, lost property though the Tsunami caused no deaths in these countries.[1] "By the end of the day, more than 1,50,000 people were dead or missing and millions more were homeless in 11 countries, making it perhaps the most destructive tsunami in history." [2] The spirit of Volunteerism welled up in the hearts of people far and wide and they travelled wherever they could to help the affected people. Jesuit Madurai Province, the Tamil Nadu unit of the International Society of Jesus, responded through Jesuit Tsunami Service (JTS) an association floated at the instance of the Tsunami for the sake of involving in the relief and rehabilitation work. The author was a member of Jesuit Madurai Province. At the time of the disaster, the author was working as the Director of RADAR (Rural Action for Development and Research) at Arul Anandar College, Karumathur, Madurai District and was called to work at Nagapattinam by the JTS.

I: As the Tsunami Struck

Saving Lives: Fr. Masillamani, an elderly Jesuit, who was a confessor at the Shrine of Velanganni was the first of the JTS members who responded to the disaster. He was hearing confessions in the chapel when he heard the chaos. He saw water everywhere. People were frightened and were drowning in water that was only a few feet deep. With the help of volunteers, he formed a human chain and waded through water and pulled up people who were frightened and were drowning in water and saved many lives. He encouraged the volunteers and those who were standing nearby to shout and tell those who were being washed away to stand up. Who ever heard the shouts and stood up was saved because the water was only about three feet high and they were rolling in the water and drowning out of fear.

Transport in the Disaster Zone: Fr. Masillamani then noticed that the vans and cars were fleeing the disaster zone without taking the passengers. The drivers were panic-stricken and were concerned with only to save their own lives. He encouraged the local youth to stop the vehicles fleeing without taking passengers. Mild stone throwing was necessary to stop the vehicles. The drivers stopped and picked up passengers who wanted to leave the disaster zone.

Medical Assistance: Fr. Masillamani then moved on to the Dispensary and Hospital and found that the Doctors and nurses were panic-stricken and was packing to leave the hospital. He pleaded with them to stay back and attend to whoever was coming into the hospital asking for assistance. He stayed with the hospital staff as long as necessary to make them render service to the needy at the crucial moment.

Indentifying the Dead: At least 10 members of the JTS from St. Joseph's Collge, Trichy, Arul Anandar College, Karumathur, Madurai and other parts of Tamil Nadu were already there in Velanganni under the leadership of Dr. Xavier Arockiasamy SJ, assisting with a large number of other volunteers in removing the dead bodies of people and helping people to identify their relatives from among the dead. Those bodies that could not be identified, were exposed to nature for two days and the local administration was getting ready for mass burial. Fr. Masillamani came in with the suggestion to take photographs of all the unidentified bodies and displaying them prominently so that their near ones coming in search of them could at least know for sure that the person has been buried in the mass grave there. This was rather helpful for many to get death certificates for their relatives and also was helpful for them to receive the compensation from the government.

Food and Water for the Affected: Fr. Massillamani then mobilized a team of volunteers from among the local people and went door to door meeting people and encouraging them to eat from the common kitchen set up in their neighbourhood.

II: Trauma Care

Fr. Paul Michael SJ, the then coordinator of Social Action of Jesuit Madurai Province, took the leadership for the relief and rehabilitation work. About 80 Volunteers of the JTS under the leadership of Dr. Rose MBBS were trained in Trauma care by experts from National Institute for Mental Health and Neuro Sciences (NIMHANS), Bangalore. These volunteers were dispersed with the help of vehicles to neighbouring villages to meet people and help them come out of their Trauma. Disaster had struck them all and there were no one who could listen to their tales of woe. A large number of people have lost their near and dear ones. They had nobody with whom they can mourn their dead. Trauma care unit went door to door just to listen to their stories and lending their shoulders for them to cry their hearts out.

The volunteers were not experts. At the end of each day, the volunteers came home with a heavy heart and the organizers had to do something to get them out of their state of mind and enable them to recuperate to get ready for the next day work. The technique of enabling them writing down the most pathetic of the stories they have heard on that day was applied. This purged them of their sadness. Singing and meditation also were used to help the volunteers keep their sobriety.

III: Reaching out to the Needy

Identifying people in need: A large number of trucks laden with goods for the people were causing traffic problems. The philanthropists were throwing things to people who were lining the roads and people in the interior villages needed things. A group of volunteers under the leadership of Bro. Annaraj SJ were sent on

foot, with food pockets and water that would last for a day, into the neighbourhood to reach out to the people who were there in the villages. They made it possible for government as well as non government agencies to reach out relief materials to them.

Medical Assistance: A team consisting of a Doctor, two nurses and a handful of assistants went around with basic medicines and reached out to those who needed basic medical care. Whoever needed specialized medical treatment, were shifted to the nearby hospitals and the team followed them up till they recuperated and returned to their villages.

Drinking Water: Providing safe drinking water to people affected arose as a major problem. The government department drilled bore wells, installed motors and positioned storage tanks wherever possible. Hand pumps were installed wherever the people had no electricity. In areas where drinking water was supplied through tanker lorries, JTS set up Water Tanks for the people to store the water from the lorries.

IV: Care for children

The children were the most resilient lot form among the people. But the plight of their elders whoever are left in the family was telling on them. JTS picked up a group of volunteers to work only with children.

Creativity Workshop for Psycho-Social Care: The group of volunteers went into villages arming themselves with writing boards and papers and colour crayons and pencils and rubbers. Children were gathered and were given short instruction on how they could draw whatever that came into their minds. The children were taken up with the drawing. The technique of providing a non judgmental atmosphere for bringing out their creativity was used. Children were drawing out scenes of the disaster which was upper most in their consciousness. And a lot of psychological healing was happening all around us. Even elders found these sessions interesting and some of them wanted to draw. And the JTS team provided them also with the drawing boards, papers and colours.

Cultural Troupe Rekindling Hopes: As days passed and the enormity of the disaster sank into people, there was silence everywhere. Hardly ever we heard anyone talking loudly. Either they were whispering or wailing. The cultural troupes sensitive to the situation went into the villages organizing simple programmes enabling the local youth as well as the children also to participate in some singing and dancing. Tsunami inspired songs were composed and set to music and were sung by the group. This enabled people to vent their feelings about Tsunami. Children and elders laughed for the simple comedy enacted by the cultural troupes. Songs inspiring hope and encouragement were sung and the people responded well.

V: Care for the Adolescent

A lot of children's clothes and adults clothes were made available. The JTS team found out that the relief material did not include clothes meant for the adolescents. Sr. Leema FMA, one of the JTS volunteers, pointed out that the adolescents especially the girls have very specific needs and that had to be addressed. She was very sensitive and could perceive the absence of adolescent boys as well as girls at the scene of disaster.

They were hiding themselves wherever possible because they had no proper clothes to show them in public. Representation was sent to various agencies bringing in relief materials and their needs were soon addressed. Efforts were taken to get whoever was willing to get back to school. The volunteers went in search of the school going children especially those in the 10th Std and 12th Std and encouraged them to attend school.

VI: Care for the Youth

Nobody was venturing into the sea. The youth had nothing to do. Something had to be done to rebuild their lives. It was certain that eventually they will overcome their fear and go back to the sea to fish. Till that time, we need to keep them busy with something that will prepare them for facing the future.

Grihini Centres for Girls: Focussing on sewing and needle works, the young girls were attracted to these centres where they had clean water and food and an atmosphere a little different from their disaster struck homes and villages. The Rev Sisters from various congregations like the ICMs, Salesians, Bon Secours and Servites came forward and set up Grihini centres for young women. In one such inauguration of the Grihini Centre, the JTS volunteers bought enough flowers for all the girls. Almost a month after the Tsunami, it was the first time the girls were wearing flowers and that made them believe that they are recovering and soon they will be leading near normal lives.

Boat Engine Repairing for Boys: The young boys who were wondering what would happen to their fishing work, the boat engine repairing workshop set up on a temporary basis in their villages which became a place to hang out. They had something interesting to watch and to do. They themselves may be able to repair their engines in the future. Once a few engines were repaired someone said that he wanted to see whether we had done it well by taking his boat into the sea. I remember the joy of venturing into sea written largely on the faces of the youth gathered around.

Alternative Employment Opportunities: A mobile driving school was set up by the initiative of   Mr. Barnabas a JTS volunteer of Malligapuram in Chengalpet District. Bro. Rajasekaran SJ made all the arrangements with an existing driving school in Mayavaram to get the youth their licenses on a fast track. Mr. Vijay, a JTS volunteer from Komalapuram of Dindigul District saw to it that 100 youth were trained well and were given the licences. Many of them took up driving the Mini Vans, necessary for various works in their villages.

A good number of young persons did not want to go fishing anymore. They would like to do whatever else they could to earn a living. The JTS tied up with Industrial Training Institutes far and wide and placed almost one thousand youth in various centres to learn to be a Motor Mechanic, AC Mechanic, Electrician, Welder etc. The courses were ranging from three months to a year. JTS eventually started a Community College at Nagapattinam itself for the rehabilitation of the Tsunami affected people. Experts were saying that the Rehabilitation is going to take more than ten years. It is seven years since Tsunami and we see that the experts were right. Rehabilitation and Reconstruction of the lives of Tsuanami affected people of Tamil Nadu is happening even today.

VII: Care for Widows

JTS noticed that the plight of the widows was the most pathetic among the situations of victims of Tsunami. Widows' Right to Livelihood Movement was initiated and is spearheading articulation and mobilizing the widows to demand their rights from the government through the local bodies.

Conclusion

Community halls were constructed. A large number of children were sent to various hostels to pursue their education. Self Help Groups were formed for women to rebuild their lives and a lot more is being done by way of rehabilitation and reconstruction of the lives of the Tsunami affected people. That human spirit, irrespective of caste and creed, sprang up to help their neighbours in need is the best of the experiences the author had during the disaster management involvement in the Post Tsunami 2004.

SAVING A LIFE IN AN EMERGENCY SITUATION
(In the Context of Road Accident)

TN Suresh

Introduction

More than 1,200,000 people are killed in Road Accidents worldwide, every year. In India, every five minutes 3 persons die by accident. India has the dubious first place in the Accident vs Death ratio. First Aid learning is the civic responsibility of every citizen. First Aid learning should begin from elementary school. Government can incorporate First Aid subject in the curriculum from the beginning. People should be aware of the importance of First Aid. In India, 80% cause of sudden death by road accident is Head injuries. Every citizen should be ready to save the life at any Emergency situation in Road accident.

Action in an Emergency

Most of the sudden death by accident is caused by:

1. Severe bleeding due to head injury
2. Sudden stopping of the heart-beat and
3. Being unconscious

If we give immediate First aid, we can save the life immediately.

Giving First Aid to Head Injury

1. Change the injured person's position from flat to sitting position. It helps to control pressure.
2. If pulse is present, immediately compress the carotid pressure point with both of your thumb fingers (You can feel the pressure point from both side of the throat). Bleeding can be stopped immediately.
3. Enable brain cells to take oxygen.
4. If the person is bleeding with yellow colour fluid from ear and nose (may be brain is damaged), immediately close the ear and nose, put the head in down position and rush the person to the nearest hospital within half an hour.
5. The causality needs immediate medical help. Check the pulse continuously till the injured gets the medical aid.

Don'ts

1. Don't put the causality in a flat position.
2. Don't' give water or food to swallow even if he/she is asking.
3. Don't tilt the head to back position while it is bleeding from ear and nose.

How to Activate the Heart Beat?

If pulse is absent in the casuality because of blood loss, electrical shock, heart attack and any other situations, we must act within 3 minutes to save the life, otherwise the brain cells will be dead. CPR (Cardio

Pulmonary Resuscitation - Heart lungs revival) helps to activate the heart pumping. CPR is the powerful technique used worldwide to activate the heart by external stimulation. Every citizen must learn this life saving technique. Except CPR, there is no any alternative treatment in First aid for Cardiac arrest.

We start the CPR step by step as per Life Saving Procedures

- Put the casuality at flat position and loosen the dress immediately.
- Tilt the Head portion to back and release the tongue from the teeth.
- Open the mouth and close the nose gently.
- Seal your mouth around on the casuality mouth.
- Give deep breathing.

Give 2 rescue breaths and compress 30 times the heart portion with your both of the palms with interlocked fingers (we should compress only on the centre of the chest).

Give 2 breaths and 30 chest compressions simultaneously. Three minutes, later check the pulse and continue the CPR up to recover or till the Medical Aid. If we do the CPR in correct procedure, the person will regain consciousness in next 5 to 10 minutes.

We can identify whether the casuality is conscious or unconscious by Alert, Voice and Pain (AVP) procedure. AVP is the formula by which we feel the level of response of casuality.

Recovery Position

If the Casuality is unconscious, immediately put him/her to recovery position. We just turn the casuality to one side, in a relaxable position. Check the pulse and body temperature. If you feel the body temperature is reducing, warm up the body by wrapping the body by blanket or woolen clothes.

Don'ts

1. Don't put the casualty to flat position (The tongue will fall back into the throat).
2. Don't give water or any liquid to swallow.

Share these tips and practice this treatment with others to save many lives.

School authorities can share the above tips and treatments by
- Discuss the tips in Parent-Teacher meetings.
- Discuss it in School Assembly / Class rooms.
- Print the tips in school diary every year (next year onwards).
- Print the tips in school and college magazine.
- Display the tips in special Notice Board in easily visible large letters.
- Display the tips in all Class Rooms / Walls of School building.
- Print and distribute the tips among Parents / children.

Road Safety Tips and How to Save a Life by Road Accident

1. Most important method to bring down accidents is strict enforcement of speed limits. About 90% of accidents can be avoided by strict enforcement of speed limits.
2. Heavy Penalty should be imposed on all those who cross speed limits. If this is strictly implemented, nobody will dare to go at high speed.
3. Two wheeler manufacturers should be asked to design two wheelers with a designed maximum possible speed of (say) 50/60 kmph. This limit may be decided based on the road conditions of each country.
4. Driving tests for issue of Driving License is to be made more stringent and foolproof.
5. Helmet should be made compulsory by law in all countries. Issue of Helmet should be made mandatory with the sale of each two wheeler.
6. Helmet should be made compulsory for pillion riders also.
7. Ensure that only good quality helmets that meet standard specifications are available in the market.
8. Safety awareness should begin from childhood, as it is difficult to impart awareness to a grown up person. If safety awareness is imparted at childhood, safety will become a habit.
9. Children below a certain age should not be permitted to do cycling in busy roads and in roads where heavy vehicles are plying.
10. Newspaper, Television and other media should be effectively used for public safety awareness.
11. Eye sight of aged driving license holders should be checked at regular intervals.
12. License of drunkard drivers and riders should be cancelled immediately.
13. Signals for road crossings should be provided at important and busy places where a large number of people have to cross the road every day.
14. Accident statistics should be periodically reviewed to understand the effect of actions taken. Corrective steps should be taken based on these reviews.
15. If helmet is not available, do not accept the offer for a lift.
16. Don't forget to fix the chinstrap of your helmet. Otherwise it will not help during an accident.
17. Don't use mobile phones while driving / riding.
18. Restrict speed at known accident prone areas.
19. Children playing ball games like Football, Cricket, Tennis, etc. near roads are likely to run across the road carelessly to pick the ball as the ball goes out of the field. Strict instructions should be given to children to be very careful while crossing the road to pick the ball.
20. When you are walking with small children on road side, hold on their hand. It should not be the other way. i.e. don't let the children to hold on your hand.
21. While walking with children on road side, keep the children on the outer side of the road. You should be in the inner side.
22. Let 'Road Safety' be a mandatory topic for School Projects for all classes, every year.
23. Road Safety Day / Road Safety Week should be observed in all Schools, every year. Competitions on Road Safety Tips, Slogans, Essays and Paintings etc should be conducted for students of various classes.
24. Do not drive after taking sleep inducing tablets like anti-histamines, anti-allergic, anti-depressants etc.

TN Suresh, Hon. Secretary and Lecturer in First Aid, St.John Ambulance, Hosur. Mobile: 9942580373, e-mail : subsurkou@gmail.com

DISASTER - RISK AND VULNERABILITY IN THE INDIAN CONTEXT

Dr.GP Ganapathy

Introduction

'A disaster is a serious disruption of the functioning of society, causing widespread human, material or environmental losses which exceed the ability of affected society to cope on its own resources'

Disasters can occur as a consequence of the impact of a natural or a human-caused hazard. Natural hazards comprise phenomena such as earthquakes, volcanic activity, landslides, tsunamis, tropical cyclones and other severe storms, tornadoes and high winds, river and coastal flooding, wildfires and associated haze, drought, sand and dust storms, infestations, etc. Human-caused hazards may be intentional, such as the illegal discharge of oil, or accidental such as toxic spills and nuclear meltdown. All of these can expose people, ecosystems, flora and fauna to serious threats. The poor are the most vulnerable to disasters because they have fewer resources and capacity to prevent or cope with the impacts.

Disaster Management System

Prepare: At home, at school or in the community, know and follow disaster preparedness steps to be ready when disaster strikes.

Assess the Risk: Discover the types of emergencies or disasters likely to occur in your area in order to identify your preparedness needs.

Reduce the Hazards: Do what you can to lessen the danger of disaster—if you are in an earthquake zone, bolt heavy objects to floors or walls; if you are in an area prone to wild land fires, clear underbrush or overhanging trees from around structures; and no matter where you live, be sure to keep fuel and heat sources at least 3 feet apart.

Make a plan: Work together to set up a communication plan so that everyone knows where to go and whom to call in case of an emergency. Once your plan is set, make sure that everyone knows what to do and practices in order to reach safety more quickly. Be sure to update contact information, evacuation routes and disaster supplies.

Build a kit: If you are stranded with no electricity or water and the roads are impassable, you need to be able to stay in contact, listen to continuing reports and have available a disaster supplies kit—a three-day supply of water, food, medications and special supplies for every member of your family, including pets.

Volunteer: Once you are better prepared, help other family members, neighbors and friends to prepare and stay safe during an emergency. Volunteer for your local chapter of the Red Cross or other organizations.

Respond: When disaster strikes, be ready to take proper actions that will ensure your safety. The public must listen to the warnings, take appropriate safety action including evacuation if necessary, follow official recommendations, communicate with family and wait until the emergency is over. Community emergency management must put their plans into action, warning and communicating with the public and acting quickly to ensure everyone's safety.

Recover: After a disaster, individuals, families, schools, businesses, institutions and the community must clean up, clear away, repair, replace and rebuild. Recovery includes physical and emotional healing. All recovery takes time.

Mitigate: Mitigation is key to future disaster safety. Although not all disasters can be prevented, we can lessen the severity of a disaster's effects. Mitigation in homes, schools and businesses includes using smoke alarms, sprinkler systems and fire escapes, or bolting heavy items to walls or floors, anchoring roofs or building wind-safe structures. In communities, mitigation includes strengthening building codes, bridges, dams and levees, or relocating structures away from disaster-prone areas and building effective community response teams.

Disasters identified by the High Powered Committee formulated by Prime Minister of India

I - Water and Climate related disasters: Floods and Drainage Management, Cyclones, Tornadoes and Hurricanes, Hailstorm, Cloud Burst, Heat Wave and Cold Wave, Snow Avalanches, Droughts, Sea Erosion, Thunder and Lighting

II - Geologically related disasters: Landslides and Mudflows, Earthquakes, Dam Failures / Dam Bursts, Mine Fires, Tsunami

III - Chemical, Industrial and Nuclear related disasters: Chemical and Industrial Disasters, Nuclear Disasters

IV - Accident related disasters: Forest Fires, Urban Fires, Mine Flooding, Oil Spill, Major Building Collapse, Serial Bomb Blasts, Festival Disasters and Fires, Electrical Disasters and Fires, Air, Road and Rail Accidents, Boat Capsizing , Village Fire

V - Biologically related disasters: Biological Disaster and Epidemics, Pest Attacks, Cattle Epidemics, Food Poisoning.

Hazard, Risk and Vulnerability

Hazard: A potentially damaging physical event, phenomenon or human activity that may cause the loss of life or injury, property damage, social and economic disruption or environmental degradation.

Risk: The probability of harmful consequences, or expected losses (deaths, injuries, property, livelihoods, economic activity disrupted or environment damaged) resulting from interactions between natural or human-induced hazards and vulnerable conditions.

Conventionally risk is expressed by the notation: Risk = Hazards x Vulnerability. Some disciplines also include the concept of exposure to refer particularly to the physical aspects of vulnerability.

Beyond expressing a possibility of physical harm, it is crucial to recognize that risks are inherent or can be created or exist within social systems. It is important to consider the social contexts in which risks occur and that people therefore do not necessarily share the same perceptions of risk and their underlying causes.

Vulnerability: The conditions determined by physical, social, economic, and environmental factors or processes, which increase the susceptibility of a community to the impact of hazards.

Hazard, Risk and Vulnerability Analysis

The purpose of Hazard, Risk and Vulnerability Analysis is to help a community make risk-based choices to address vulnerabilities, mitigate hazards and prepare for response to, and recovery from, hazard events. *Risk-based* means based on informed choices of alternate unwanted outcomes. In other words, communities make risk reduction choices based on the acceptability of consequences and the frequency of hazards. Vulnerability is an essential part of hazards and risk research and refers to the susceptibility of people, communities or regions to natural or technological hazards.

Disaster Risk and Vulnerability in the Indian Context

India has been traditionally vulnerable to natural disasters on account of its unique geo-climatic conditions. Floods, droughts, cyclones, earthquakes and landslides have been recurrent phenomena. About 60% of the landmass is prone to earthquakes of various intensities; over 40 million hectares is prone to floods; about 8% of the total area is prone to cyclones and 68% of the area is susceptible to drought. In the decade 1990-2000, an average of about 4344 people lost their lives and about 30 million people were affected by disasters every year. The loss in terms of private, community and public assets has been astronomical.

Earthquakes

India's high earthquake risk and vulnerability is evident from the fact that about 59 per cent of India's land area could face moderate to severe earthquakes. During the period 1990 to 2006, more than 23,000 lives were lost due to 6 major earthquakes in India, which also caused enormous damage to property and public infrastructure. According to the latest seismic zone map of India (see Figure 1 – IS:1893, 2002), about 59 per cent of India's land area is vulnerable to moderate or severe seismic hazard, i.e., prone to shaking of MSK intensity VII and above.

The entire Himalayan Region is considered to be vulnerable to high intensity earthquakes of a magnitude exceeding 8.0 on the Richter Scale, and in a relatively short span of about 50 years, four such

earthquakes have occurred: Shillong, 1897 (M 8.7); Kangra, 1905 (M.8.0); Bihar–Nepal, 1934 (M 8.3); and Assam–Tibet, 1950 (M 8.6). Scientific publications have warned that very severe earthquakes are likely to occur anytime in the Himalayan Region, which could adversely affect the lives of several million people in India. The Bhuj earthquake of 2001 caused widespread damage and destruction not only to residential buildings but also to government buildings, public infrastructure and to buildings housing industrial enterprises in more than 7,900 villages in 21 districts of Gujarat.

Regions falling in various zones of the country

Zone V (Earthquake Very high damage risk zone - areas may expect intensity maximum of MSK IX or more): The entire North-east, including all the seven sister states, the Kutch district, parts of Himachal and Jammu and Kashmir, and the Andaman and Nicobar islands.

Zone IV (Earthquake High damage risk zone - areas may expect intensity maximum of MSK VIII)

Parts of the Northern belt starting from Jammu and Kashmir to Himachal Pradesh. Also include Delhi and parts of Haryana. The Koyna region of Maharashtra is also in this zone.

Zone III (Earthquake Moderate damage risk zone - areas may expect intensity maximum of MSK VII)

A large part of the country stretching from the North including some parts of Rajasthan to the South through the Konkan coast, and also the Eastern parts of the country.

Zone II (Earthquake Low damage risk zone - areas may experience intensity MSK VI)

These two zones are contiguous, covering parts of Karnataka, Andhra Pradesh, Orissa, Madhya Pradesh, and Rajasthan, known as low risk earthquake zones.

Landslides

Landslide is one of the major natural hazards that is commonly experienced in hilly terrains all over the world. Landslides affect at least 15 per cent of the land area of India—an area which exceeds 0.49 million km^2. In India the incidence of landslides in Himalayas and other hill ranges is an annual and recurring phenomenon. There is a variation in the degree of landslide incidences in various hill ranges. Hazard zone map comprises a map demarcating the stretches or areas of varying degrees of anticipated slope stability or instability. The map has an inbuilt element of forecasting and is hence of probabilistic nature. Depending upon the methodology adopted and the comprehensiveness of the input data used, a landslide hazard zone map will

be able to provide the aspects of location of occurrence time of occurrence, -type of landslide, extent of the slope area likely to be affected and rate of mass-movement of the slope mass

Landslide hazard is one of the most significant hazards that affect different parts of India every year during the rainy season. It has been observed that 21 States and Union Territory of Puducherry, located in hilly tracts of Himalayas, N.E. India, Nilgiris, Eastern Ghats, and Western Ghats, are affected by this hazard every year and suffer heavy losses in terms of life, infrastructure and property (Sharda,Y.P, 2008). Though the Nilgiri and other mountainous areas are known to be susceptible to landslides, occurrences of such magnitude were unknown earlier.

Wind and Cyclones

A long coastline of about 7,516 km of flat coastal terrain, shallow continental shelf, high population density, geographical location and physiological features of its coastal areas makes India, in the North Indian Ocean (NIO) Basin, extremely vulnerable to cyclones and its associated hazards like storm tide (the combined effects of storm surge and astronomical tide), high velocity wind and heavy rains.

Though the frequency of Tropical Cyclones (TCs) in the NIO covering the Bay of Bengal and the Arabian Sea is the least in the world (7% of the global total), their impact on the east coast of India as well as the Bangladesh coast is relatively more devastating. This is evident from the fact that in the last 270 years, 21 of the 23 major cyclones (with a loss of about 10,000 lives or more) worldwide occurred over the area surrounding the Indian subcontinent (India and Bangladesh). This is primarily due to the serious storm tide effect in the area.

Thirteen coastal states and Union Territories (UTs) in the country, encompassing 84 coastal districts, are affected by tropical cyclones. Four states (Tamil Nadu, Andhra Pradesh, Orissa and West Bengal) and one UT (Puducherry) on the east coast and one state (Gujarat) on the west coast are more vulnerable to hazards associated with cyclones.

Floods

There has been an increasing trend of urban flood disasters in India over the past several years whereby major cities in India have been severely affected. The most notable amongst them are Hyderabad in 2000, Ahmedabad in 2001, Delhi in 2002 and 2003, Chennai in 2004, Mumbai in 2005, Surat in 2006, Kolkata in 2007, Jamshedpur in 2008, Delhi in 2009 and Guwahati and Delhi in 2010. A special feature in India is that we have heavy rainfall during monsoons. There are other weather systems also that bring in a lot of rain. Storm surges can also affect coastal cities/ towns. Sudden release or failure to release water from dams can also have

severe impact. In addition, the urban heat island effect has resulted in an increase in rainfall over urban areas. Global climate change is resulting in changed weather patterns and increased episodes of high intensity rainfall events occurring in shorter periods of time. Then the threat of sea-level rise is also looming large, threatening all the coastal cities. Cities/towns located on the coast, on river banks, upstream/ downstream of dams, inland cities and in hilly areas can all be affected.

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Dr. P Ganapathy, Associate Professor, Centre for Disaster Mitigation and Management, VIT University, Vellore - 632014, Tamil Nadu, India, e-mail : gpganapathy@vit.ac.in

AN INTER-DISCIPLINARY APPROACH OF COASTAL DISASTER MANAGEMENT ON THE IMPACT OF DECEMBER 2004
(Tsunami Hazard along South Chennai coast, South-East India)

Dr.C.Satheesh Kumar and Dr.RR Krishnamoorthy

Introduction - Tsunami Inundation

The devastation caused by the 26th December 2004 Tsunami urges us to implement and monitor the various data information and communication network to assist in minimising the impact of Tsunami. To analyse the impact of the Tsunami, present study sets out the potential role of the information research through geographical mapping of the Tsunami inundated area to understand vulnerability and to assess the environmental degradation with particular reference to socio-economic perspective of the Tsunami affected coastal communities.

Ramanamurthy *et al*. (2005) observed that the run up levels in the north Andaman Islands ranges between 1.5 and 4.5 meter, 5 meter in the little Andaman and 3 to 7 meter in the Nicobar Islands. They suggested land subsidence as the reason for inundation of seawater in the south Andaman. By studying the effects on Tamil Nadu coast, they reported that the run up levels ranged between 3 and 4 m while inundation ranged from few meters to 3 km. Jayakumar *et al*. (2005) carried out across shore profiling along 19 stretches and mapped the area of inundation; they also reasoned out for the variations in inundation distances. Ramalingeswara Rao, B., Vijayaraghavan, D., Srinivasa Sarma, D., & Satyanarayanan, M. (2005) observed that the Buckingham Canal served as a controlling mechanism for the Tsunami. Chandrasekharan, H., Singh, V. P., Rao, D.U.M, Nagarajan, M., & Chandrasekaran, B. (2005) studied the impact of Tsunami on soils and crops of the Nagapattinam region. They estimated the total area of crop damage as 5,150 h.a. Agarwal, V. K., Agarwal, N., & Rajkumar (2005) observed that relatively quite weak Tsunami developed due to the 28th March 2005 earthquake around Sumatra.

Socio-economic

Detailed socio-economic assessments need to be conducted before initiating any activities in the areas identified for pilot projects (IUCN, 2005). According to Government reports, 10,749 people in India lost their lives and 6,913 were injured due to the Tsunami. It is reported that 5,640 persons are still missing. The highest human losses were in the Andaman and Nicobar Islands and the State of Tamil Nadu (UNCT-India, 2005).

As a new answer to deal with the complex socio-economic and environmental problems that have been impacting coastal zones all around the world, the concept of Integrated Coastal Zone Management

(ICZM) has emerged in the last few decades, and has experienced wide acceptation by the scientific community. ICZM has been understood more as a participatory process of community-based decision-making than a technical tool (Tagliani et al., 2003). IUCN (2005), the world conservation unit, reported early Tsunami impacts on 26th December, 2004, as follows:

On the mainland, the southern coastal states of Tamil Nadu, Puducherry, Andhra Pradesh and Kerala were affected. In most areas, Tsunami waves have damaged rice fields and destroyed fishponds, and freshwater sources. It has also severely altered the configuration of the coastline in several places, for example a wide opening of Adyar and Cooum River mouths in Chennai, was reported. The serious impact of Tsunami has been observed along Marina beach.

In developed countries, especially the South-East Asian countries, have realized the importance of December 2004 Tsunami. Awareness on periodical monitoring and warning systems of the coastal regions is also gaining momentum now. In India, warning systems and detailed monitoring have been infrequently undertaken and, only during recent years, awareness has picked up.

The general intention of this study is to contribute to the scientific aspects about physically, environmentally and socially responsible approaches for coastal disaster management with a new theme of bio-geo-socio-economic aspects in order to move towards future preparedness. The Tsunami waves travel across the ocean with extremely long wavelengths at an average speed of 800 km/hour in the open ocean. The wave height created by the 26th December 2004, Tsunami resulted in the inundation of low-lying coastal areas along the Indian coast, particularly, Andaman and Nicobar Islands, Tamil Nadu, Pondicherry, Andhra Pradesh and Kerala coasts. Major damage assessment along the Tamil Nadu coast was reported as:

- loss of life,
- infrastructure and settlement damages,
- coastal land use and cover changes, including landforms and geomorphology, and
- changes in the livelihood pattern and socio-economic conditions of coastal communities.

Research Objectives

The aim of this study is to make a quantitative assessment on the impact of 26th December 2004 Tsunami along the Chennai coast starting from Thiruvanmiyur in the north to Kovalam in the south. In order to meet this aim, the following objectives have been adopted for the present study:

1. To map the Tsunami water inundation areas based on field survey techniques to carry out the vulnerability assessment.
2. To assess the socio-economic conditions of the coastal community.

Materials and Methods

An interdisciplinary study on the impact of Tsunami hazard along Chennai coast was carried out by following a methodology with two major interrelated components. The first component of this research was devoted to Tsunami inundation mapping along the study area by using dGPS (differential Global Positioning System) and GIS tools and demarcation of the affected area on cadastral maps. The second component was to assess the socio-economic status of the coastal community including awareness on this kind of disaster and changes in the mind set of people towards preparedness for such events in the future with the help of interview schedule.

Study Area: The study area covers part South Chennai coast, starting from Thiruvanmiyur to Kovalam.

Results and Discussion

Elevation Mapping: The elevation survey was carried out by using RTK-GPS (Real–Time Kinematic GPS) instrument along the study area. The survey included the base station foundation and onshore transects; the total number of transects was 42 and total number of base stations was 8. The RTK-GPS is an advanced instrument and directly linked with satellite geological position and produces all data like latitude, longitude, elevation height, and date and time of the survey. The run up height was 8 m and the distance nearly 600 m as observed in the Muttukadu area.

Overlay analysis: Computer simulations linked to GIS could permit analysis of loss of life and disruption of infrastructure that is not possible with the current set of available tools. Sophisticated visualization systems allow public safety officials, scientists, and the general population to understand the effects of the various phenomena in their areas of interest and to design appropriate mitigation plans. Perspective views of the phenomena could be interactively manipulated to include a spectrum of possibilities ranging from individual rivers, streets, and buildings to entire disaster scenes. Overlays of images on topographic grids would create a realistic 3-D appearance of the phenomena that will move in real time with data moving in and out of the system dynamically. Research and education in an emergency preparedness and response are crucial as we search for conditions thought to be hazardous to life and habitat, undertake mitigation efforts, and respond during emergencies to reduce loss of life and property, and settle and restore a damaged environment (Radke *et al.*, 2000). The inundation limit was 538 meters from shoreline and the area submerged was 1.31 km^2 in the Sholinganallur area. Most of the coastal settlements and resorts were widely affected by Tsunami inundation. In the south Chennai coast segments, the maximum inundation took place because of the plain topography.

Socio-economic Aspects: A systematic structured tool was prepared to collect data on socio-economic conditions based on simple random sampling method through interview schedule among 250 samples and this survey data were analysed by using SPSS (Statistical Package for Social Sciences) software. The integration of

socio-economic aspects with other thematic data generated on other physical aspects of Tsunami hazard was carried out in concordance with the methodology adopted by Burrough, P. A., Van Deursen, W., & Heuvelink, G. (1998), Goodchild (1993), Bennett, R.A., Davis, J. L., & Wernicke, B. P. (1999) and Hill and Aspinall (2000). Income

Income: As such, there is a strong economic incentive for fishers (Teh, C., Parinov, S., & Korzh, V, 2005). Economic indicators, such as income and perceived opportunity, are more strongly associated with physical and mental health, while social, cultural and personal characteristics, such as trust, religiosity, and social support are directly associated. Education and income are predictive. (Stephen, C., Johnson, M., & Bell, A, 1994); Cho, Y., Hummer, R. A., Frisbie, W. P., & Rogers, R. G, 2003). Typically a household wealth assessment might include economic variables relating to assets such as land ownership, expenditure and income. Majority of the respondents' income is below Rs.5000/- as mentioned in the figure no.1.2. The income of the respondents is not stable because of the variable fish catch.

Property Loss: Coastal communities, dependent on the fishery industry for their livelihood, have been seriously affected by the Tsunami. The bulk of the boats destroyed or damaged were small, non-motorized boats owned and operated by the poorest of the community. Nearly 90% of fishing community was seriously affected, having lost their boats, fishing nets and homes. Fishing ports were devastated with extensive loss of essential infrastructure such as ice plants, cold rooms, workshops, shipways and marine structures. Human settlements generally suffered most damage as reported. Overall damages are estimated at approximately US$ 660 million, and losses are estimated to be approximately US$ 410 million. The analysis undertaken by the United Nations Country Team highlighted the crosscutting nature of the disaster's impacts, and thus the necessary multi-sectoral, inter-institutional, and multidisciplinary approach needed for the reconstruction process.

The study clearly portrays that three-fourth (74%) of the respondents lost their property worth Rs.50,000 and less. Only 4% of the respondents lost their property worth Rs.2,50,000 and above. The average amount of the property loss is Rs. 85,000/- .

Psycho-social Status

The provision of psycho-social support to people affected by the Tsunami must address several different levels of concerns. Families and individuals must deal with loss of relatives. Entire communities face the loss of livelihood from the massive destruction of fishing boats and nets. There would be secondary trauma issues in the weeks to come, as evidenced by rumours about the re-occurrence of Tsunami. Third level issues should address stress among volunteers and district officials who have worked for days in the devastated areas, have occasionally lost friends and relatives and are facing cumulative stress. In this study, the status of psycho-social support and its need was recorded from the respondents. Majority (82%) of the respondents needed psycho-social support very much to come out of the Tsunami stress.

ICZM (Integrated Coastal Zone Management)

A multi-disciplinary tool kit has been presented with, for example, global climatic change researchers have tapped into (Schneider, 1997). The integrated assessment framework must include coupled or integrated models geo and socio-economic but it is not limited to just this. According to Rotmans and Van Asselt (1996), integrated assessment is ''an interdisciplinary and participatory process of combining, interpreting and communicating knowledge from diverse scientific disciplines to achieve a better understanding of complex phenomena''. The critical importance of making value-laden assumptions highly transparent in both natural and social scientific components of Integrated Assessment Models (IAMs) needs to be highlighted. Practitioners now argue that incorporating decision makers and other stakeholders into the early design of IAMs greatly facilitates this process. Valuation in this process is more than the assignment of monetary values and includes multi-criteria assessment methods and techniques in order to identify practicable trade-offs.

Conclusion

This rare event has triggered the scientific community, especially to assess its impact, identify areas of vulnerability and preparation of disaster management, including awareness creation and community preparedness. With this in view, a detailed integrated study as a first attempt after this Tsunami event involving the major components of Tsunami inundation mapping and socio-economic aspects of coastal community, has been carried out for Chennai coast. Based on the interpretation of results it reveals that, the maximum coastal land area submerged by Tsunami water was estimated as 1.31 km^2 in and around Sholinganallur, in South Chennai coast, where most of the coastal settlements and beach resorts are ravaged by Tsunami. It was also found that nearly 80% of the respondents have expressed their willingness towards the immediate implementation of mitigation measures.

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Dr. C Satheesh Kumar, Assistant Professor, Department of Social Work, School of Social Sciences & International Studies, Pondicherry University, Puducherry – 605014, Email: satheeshsw@gmail.com, Mobile: 9444470765

Dr. RR Krishnamoorthy, Associate Professor, Department of Applied Geology, School of Earth & Atmospheric Sciences, University of Madras, Chennai – 600025, Email: rrkrishnamurthy@gmail.com, Mobile: 9840123142

COMMUNITY PARTICIPATION IN DISASTER MANAGEMENT

S Rose Mary and Dr. AJ Christopher

Introduction

Individuals as they live in families, groups and community normally have interaction, inter dependency, cooperation, co-ordination, consultation, association, conflict and confrontation with another individual or group of individuals or the community in their day to day life. When an individual or a group of individuals or the community encounters a problem, there is every possibility for help and assistance from other individuals, groups or the community. The whole dynamics that take place in a community pave way for the participation of the community in different forms. Similarly, unpredictable events occur either due to nature or manmade for an individual, group or in a community. Certain geographical areas are prone to such events and the community has to encounter such events. In such situations, the community has to be prepared and capacitated to face the events where participation in the preparation, facing the event and to respond to the events are absolutely essential. Hence this paper is an attempt to understand the community participation in disaster management.

Participation

Participation is viewed and reviewed differently by different authors. Some of the views expressed by the authors are:

Participation is;

- A function of an individual in a society (Palma: 1970)
- A goal to reach the targets (Deshmuk: 1970)
- A tool to be utilized for fulfilling the needs (Muthayya: 1973)
- A sharing of benefits and responsibilities in planning (Jagannatham: 1979)
- A means to set goals and priorities (Chathurvedi: 1979)
- A decision making from planning to evaluation (Cohen and Uphoof: 1980)

The above views may be correct individually as they describe only a limited meaning to the concept of participation. A comprehensive view on the concept of participation is indispensable that could be stated as: Participation is a process in which the initiative and involvement of the people (especially the needy) emerges

either spontaneously or by motivation through education and awareness for a specific responsible action (planning to evaluation) and results in the access, control and sharing of the resources, information and decision making which is beneficial to the community.

Properties of Participation

The properties of participation have been viewed as selective and general or direct and indirect (Redford: 1960), and formal and informal (Dachler and Wilpert: 1978). In selective or direct participation, the individual or the community is involved in the decision making process whereas in the general or indirect participation, the individuals or the community selects the representative who makes the decision or policies. Formal participation is expected and the provision given in the statutes has a legal base. Informal participation is non- statutory and the involvement of a group emerges spontaneously due to some struggle or discontent.

According to Fauri (1977) social protest is also one of the properties of participation because in this participation conflict is used as a major technique to put pressure on decision makers. This is used when the whole community (affected) needs the change.

Disaster

According Udhayakumar (2009), disaster means an occurrence causing widespread destruction and distress. It is a catastrophe, a calamity, a tragedy or a cataclysm. It is a state of extreme ruin and misfortune which is quite often irremediable. It is indeed a grave misfortune. Disaster is also used to mean a total failure. The word disaster is derived from 'dis + astro' an evil influence of a star. Disaster is an unpredictable event that occurs due to water, climate, chemical industries, nuclear accident, geological and biological and it causes unprecedented loss of life, material, property and environment. It is a serious disruption of the functioning of a society at a large scale that existing and available local resources cannot fulfill the damage or losses or that exceeds the capacity of the local system to cope with.

The global community encounters either the natural disaster or manmade disasters due to various reasons. The impact of disaster differs from place to place depending up on the intensity, size of the affected habitation, and time of occurrences and so on. The outputs of a disaster are injury, sufferings, diseases, starvation deaths, damages and loss of property. The outcomes of the disaster are disruption of normal life, or activities, rise of anti-social activities and loss of livelihood. Disaster brings social, economic, psychological, political, cultural and ecological impact among the people.

Whatever may be the occurrences of unpredictable events, there is a need for a proper counter mechanism to empower the affected and reduce the vulnerability to disaster so as to manage the disaster and to ensure sustainable development. Without sustainability, disaster management efforts will not protect people during the time of crisis. According to Pandey (2011), for both pre-disaster mitigation and post- disaster response and recovery process, the involvement of the communities is inevitable. In other words, for sustainable disaster management the involvement of the community is very important. The most common elements of community involvement are partnership, participation, empowerment and ownership by the local people.

To minimize the damages caused by the disaster, various efforts have been taken by the governments, NGOs, international communities which include the donor agencies. However, in spite of the participation of the stakeholders, it has been observed that many of the disaster management programmes have failed to be sustainable at the local level after the completion of the particular projects. Therefore, the emphasis of disaster management efforts should focus on communities and the people who live in them. Unless the disaster management efforts are sustainable at individual and community level, it is difficult to reduce the losses and scale the tragedy. There needs to be an opportunity where people can be involved from the initial stage of disaster management activities itself. Through the community based activities, people should be able to participate alongside government officials, non-governmental agencies and expert groups as direct stakeholders of these activities.

Community Based Disaster Management

Community Based Disaster Management is described by the International Institute for Disaster Management as an approach that involves direct participation of the people most likely to be exposed to hazards in planning, decision making and operational activities at all levels of disaster management responsibility. Community Based Disaster Management approaches are to address the causes of vulnerability and to reduce the dependency of the community on outside assistance, mobilize volunteers and target the most vulnerable, increase preparedness in consonance with civil society and government response to impacts of disasters, protect and ensure positive socio economic development and reduce deaths and massive destruction of properties (Mano: 2011).

In the past, 'top down' and 'command and control' approaches were used to manage the unprecedented loss of life, material, property and environment. In these approaches, the decisions come from higher authorities based on their perception on the needs. The communities serve more as 'victims' or 'receivers of aid'. The community as the primary stakeholder and recipient of the direct impact of disasters was not given the chance to participate in the process of decision making and in the implementation of the activities. Communities if left alone, have limited resources to fully cope with disasters. In many developing and under developed countries, those who suffer the most are the poor, because they have limited survival resources and unable to enjoy adequate infrastructure and access to social services.

At the time of disaster, the community has to lose more because they are directly hit by the disaster and they are more vulnerable to the effects of hazardous events. If the community can reduce the impact of disaster by their preparedness to encounter and to respond, they are likely to gain the most. Therefore, disaster management demands participation of the community in risk assessment, mitigation planning, capacity building, and implementation and monitoring.

Chart 1   Community Participation in Disaster Management
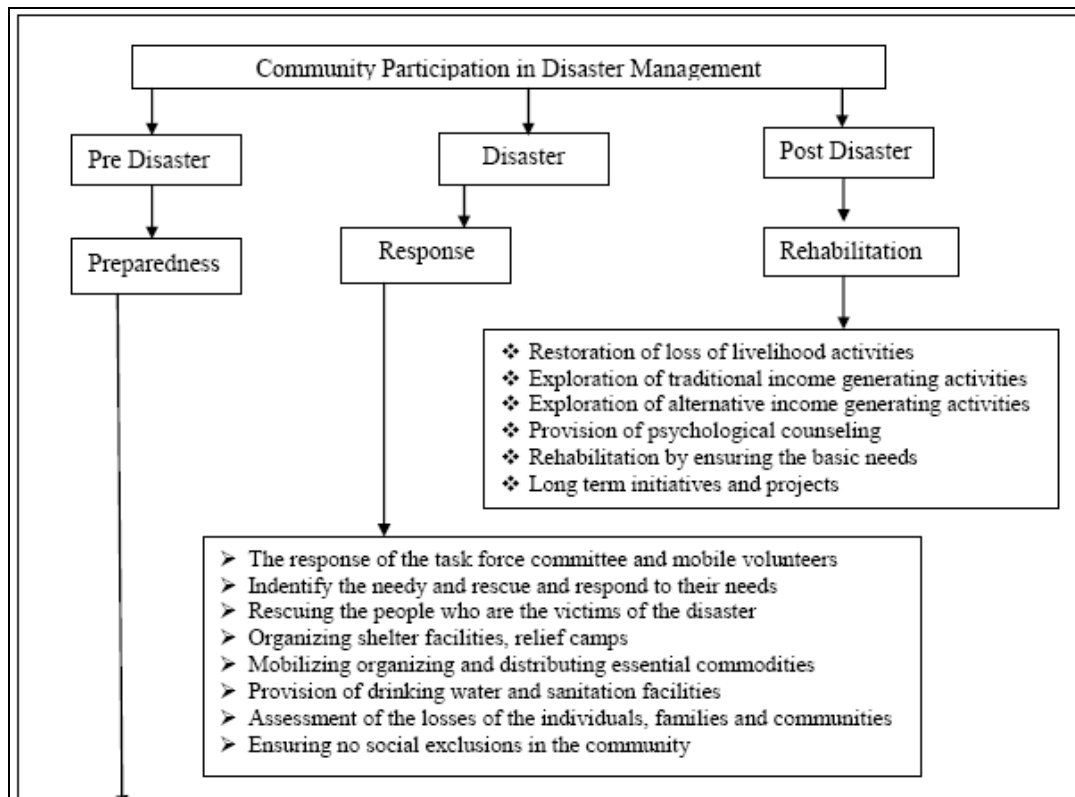
The above chart shows clearly the various activities that could be undertaken in different phases of the disaster which would elicit, ensure and sustain the participation of the community.

Conclusion

In the process of development, participation of the people is inevitable and at the time of unpredictable event it may not happen spontaneously. Hence the community has to be prepared to face the disaster and handle the situation so that the damages and losses can be reduced. The capacity of the community has to be

increased by their preparedness and knowledge and awareness on the disaster and mitigation and the strategies to encounter the event. This paper has identified the areas where the community can involve before, during and after any disastrous events.

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S Rosy Mary, Research Scholar, Vinayaka Mission University, Salem.

Dr. AJ Christopher, Associate Professor, Department of Social Work, Sacred Heart College, Tirupattur.

COMMUNITY MANAGED DISASTER MITIGATION – A NEED OF THE HOUR

C Asokan and Dr. T Thasian

Introduction

Disaster, whether natural or man-made, is causing a great loss to all sorts of life-human beings, animals, plants, resources-buildings, infrastructure and above all it causes psychological problems. Disasters are increasing with the move to material civilization, urbanization and industrialization. With this new cult, even natural disasters are occurring because of the disturbances in natural equilibrium caused by the greed and lust of human beings to exploit natural recourses to get rich quickly. World Bank in India (January 2007) in its article, 'Two years after the Tsunami, South Asia prepares against future Disasters', observes that across the world, natural disasters are growing in number and destructiveness, and the human toll is escalating. In the past 20 years alone, more than 4 billion people have been affected by natural catastrophes from floods, cyclones, tsunami, earthquakes, landslides, and volcanic eruptions. Apart from the suffering, the loss of human life, the destruction of livelihoods and the economic costs of major disasters are huge. Countries worldwide are estimated to have lost an average of 25 percent of their GDP from natural calamities in the recent past. (India W. B., 2007)

Disaster Prevention, Preparedness and Mitigation

Prevention: Prevention is the felt need that should be instilled in all communities and amongst disaster managers. This requires active involvement of all groups of society, national, international organizations, governments and private organizations. Early warnings and conscious developmental programming are the key elements of preventive planning. The new culture that is permeating the disaster management in the present times is based on the premise that hazards both natural and human-induced are inevitable, but the disasters that follow can be handled effectively through adequate preventive measures. Therefore, much can be done to prevent their devastation on communities and economies.

The Chairman of Second Administrative Reforms Commission, Shri.M. Verrappa Moily, in his third report ' Crisis Management: From Despair to Hope' rightly observes that, we cannot prevent natural hazards, which are endemic to our geology, geography, climate, social and cultural settings, but we can certainly strive to manage crisis more efficiently so that hazards do not degenerate in to disasters (Moily, 2006).

Preparedness: The United Nations Disaster Relief officer (UNDRO) defines Disaster Preparedness as a series of measures designed to organize and facilitate timely and effective rescue, relief and rehabilitation operations in cases of disaster. Measures of preparedness include among others, setting up disaster relief machinery, formulation of emergency relief plans, training of specific groups and vulnerable communities to undertake rescue and relief stock piling supplies and earmarking funds for relief operations. Preparedness, therefore encompasses, those measures taken before a disaster event which are aimed at minimizing loss of life, disruption of critical services, and damage when the disaster occurs. All preparedness planning needs to be supported by appropriate legislation with clear allocation of responsibilities and budgetary provisions.

Dr. Mazhar Ali Sabri, in his article, 'Cyclones and Disaster Management' states that Disaster Preparedness is the management planning for a prompt and efficient action at all levels to save lives, to reduce suffering and to minimize damage to property when a natural disaster occurs. A comprehensive effort for disaster preparedness include public education about cyclones, awareness campaign, provisions for issuing early cyclone warning, organization of people, disaster training, preparing evacuation plans and providing evacuees with emergency food, water and shelter. Such an effort may be helpful in reducing the loss of life due to natural calamities. Participation of the cyclone victims is also very important as without their cooperation all outside initiatives will be just in vain. Experiences of the community should be utilized and aired in public meetings and discussions, so that they can be better informed and prepared (Sabri, 2000).

Mitigation: Mitigation embraces all measures taken to reduce both the effects of the hazard itself and the vulnerable conditions to it in order to reduce the scale of a future disaster. Therefore, mitigation activities can be focused on the hazard itself or the elements exposed to the threat. Examples of mitigation measures which are hazard specific include modifying the occurrence of the hazard. E.g., water management in drought prone areas, avoiding the hazard by shifting people away from the hazard and by strengthening structures to reduce damage when a hazard occurs. In addition to these physical measures, mitigation should also be aimed at reducing the physical, economic and social vulnerability to threats and the underlying causes for this vulnerability. Disaster mitigation is clearly part of a broader strategy of sustainable development – making communities and nations socially, economically and ecologically sustainable (S.L.Goel, 2007).

Main Strategies for Mitigation

1. Drought Monitoring.
2. Water supply augmentation and conservation-Watersheds.
3. Land-use.
4. Livelihood planning.
5. Drought planning.
6. Public awareness and participation.

Disaster Management

'Disaster management' means a continuous and integrated process of planning, organizing, coordinating and implementing measures which are necessary or expedient for-

1. Prevention of danger or threat of any disaster.
2. Mitigation or reduction of risk of any disaster or its severity or consequences.
3. Capacity-building.
4. Preparedness to deal with any disaster.
5. Prompt response to any threatening disaster situation or disaster.

6. Assessing the severity or magnitude of effects of any disaster.
7. Evacuation, rescue and relief, and
8. Rehabilitation and Reconstruction.

The advance planning and the arrangements for meeting the disaster, when the event has occurred, can be done at the state or the local level. For managing the situation arisen due to the disaster, decentralization of the operations should be the key approach. To mitigate the situation, communities should be made timely awareness about the risks and they should be involved in designing and implementing the necessary relief operations including resettlement of affected families (Karalay, 2005).

Stages of Disaster Management: (5 R's) - (Rescue, Relief, Rehabilitation, Restoration, Reconstruction).

Rescue: Rescue operations can be immediately done by local community by searching and rescuing the people under danger. But during the large scale disaster/calamities, the trained manpower and infrastructure are inadequate with the local community and so, the governments and international bodies come to the scene for the rescue operation.

Relief: The immediate relief supplies like, Drinking water, Medicinal assistance to the injured, Disposal of the dead, Supply of food and clothing, Emergency shelter for the homeless, Opening up access, roads if blocked and restoration of communication channels, Psychological counseling of the survivors who have lost their close relatives, Responsive administration and taking each case seriously are to be provided to the disaster victims.

Rehabilitation: Mr. Jagmohan in his article, 'Masters of Unplanned Growth' clearly stated that a good master plan for a city is one that elevates its life and attempts to create a healthy structure and a healthy soul. It is a blueprint for the future, a vision document that reflects the longings of a community for a better tomorrow. It rejects what is clumsy and cruel in the past, and preserves and protects what is beautiful and inspiring. It assesses the current trends and corrects them if they are undermining either the ecosystem or the general environment of the city. It ensures that present needs are met without closing the options for an improved future. A holistic approach constitutes its inner core, and sustainable development serves as its guiding star. Its ultimate aim is to attain higher quality of life and build a more prosperous, just, secure and value-oriented city, rooted in honesty, non-acquisitiveness and nobility of mind (Jagmohan, 2007).

Restoration: The remaining affected people have to start their life with the rehabilitative measures. There is a need to reestablish the social relations, interdependence, and mindset for entering in to the new phase of life. Psychological measures have to be given for starting a new life.

Reconstruction: During the course of relief and rehabilitation, it is quite possible to identify the lapses, limitations and the problems related to the distribution system and administrative (formal/informal) structure of the community. The harmful practices can be eliminated through social education process for ensuring a sustainable livelihood. For this to achieve, personal prejudice, harmful beliefs and practices, cultural constraints, and their traditional mindsets within the boundaries have to be delinked, and a new era of thinking in the context of current development perspective has to be evolved within the community through planned strategies and appropriate action programmes.

Responding to the Disasters and Humanitarian Emergencies

The following Government, NGO's and Civil Societies like Local, State, National and International level institutions and organizations respond to the disasters and humanitarian emergencies to reduce the vulnerability, rescue operation and for rehabilitative measures.

State Government: The following are the organizations working at the state level (Tamil Nadu) for the relief and rehabilitation of disaster victims likewise; other states have similar bodies to respond the emergencies.

1. Tamil Nadu Cyclone Relief Service
2. Tamil Nadu Flood Relief Service
3. Tamil Nadu Fire relief Service
4. Tamil Nadu Drought Relief Programme Service

Central Government: The following are the National Level organizations working for the welfare of the disaster victims.

1. National Institute of Disaster Management.
2. Centre for Disaster management.
3. Indian Space Research Organization.
4. National Remote Sensing Agency.
5. National Council for Education, Research and Training.
6. Indian Institute of Technology.
7. Institute of Insurance and Risk management, Hyderabad.
8. India Meteorological Department.

International Organizations like WHO, UNICEF, UNESCO, etc.

International Funding organization like REDCROSS society, World Vision International (WVI), Lutheran World Relief (LWR), CARITAS International, Bread for the World, MISEREOR, CASA, etc.

Need for Disaster Management Cell at District Level Managed by NGO:

Disaster is the result of a hazard impacting on a vulnerable population causing wide spread damage, causalities and human, material or environmental loss which exists the ability of the affected community to cope using its own resources. In india from 1972-2004, we had 140 cyclones with the speed of 100 Kmph to 140 Kmph; another 140 cyclones with speed of 240 Kmph; and 125 cyclones with the speed of 250 Kmph and above. We also had 104 major floods, 21 hurricanes, 64 giant storms, 24 major landslides, 24 major earthquakes, 28 droughts and 262 major accidents. The cyclone in Orissa, earthquake in Gujarat, Tsunami   in the eastern coast and Kashmir quake together swallowed more than 50 thousand people, crores of cattle, millions of houses and multitudes of families lost their livelihood. The disasters like tsunami revealed the fact that NGOs did not have experience, expertise, resources and especially human resources to respond constructively during disasters for Rescue, Relief, Rehabilitation, Restoration and Reconstruction. There is a definite need for equipping the NGOs, Mission hospitals, Govt. officials and committed volunteers to manage the disasters and to provide humanitarian emergencies, counseling and rehabilitation. Various studies revealed that around 100 percent of the victims had the psycho-somatic problems even after one year of the disasters.

V. Suresh and Taranjot K. Gadhok in their article 'Disaster to Development' rightly suggested that it is high time that the thinking process is brought to turn around from 'actions to precautions'. It requires strong political will to put knowledge base to work, to use the forces of legislation, education, public awareness and policy-making on development and relief to make disaster reduction measures part of our everyday consciousness and planning activities. Whenever disasters strike, they do not discriminate or differentiate men and nations, poor or rich, young or old. They do not negotiate and they do not wait, they simply come, kill and destroy and cause irreparable losses. And when these hazards strike, it is the communities who are first to react, it is the communities irrespective of their profession, status, caste, or culture who need to react. Therefore, it is important that capacities of communities are built to observe, understand and prepare themselves for worst impact. It is important to allow transparency of actions of the nodal agencies working towards mitigation measures to encourage countries to get involved. At the time of occurrence of disasters, they do not wait for help and can stand on their own feet and mobilize self-help, before rescue and relief reaches them. This may require co-ordination with NGOs which are trained to handle such situation (Gadhok, 1999)

Conclusion

Instead of managing disasters, there is a need to prevent the disasters by covering different dimensions like social, ecological, and environmental. In the developing countries like India, the resources used for Disaster Management can be effectively used for Disaster Prevention and Preparedness. The NGOs can work with government, in preparing the community to prevent the disasters and ensure preparedness. The NGOs do not have the required resources. So, the planning commission can set aside certain percentage of resources which can be used at the district level for the disaster prevention and preparedness by NGOs and civic bodies. Disaster Management has to be a multi-disciplinary and pro-active approach. Besides, various measures for putting in place institutional and policy framework, disaster prevention, mitigation and preparedness

enunciated earlier and initiatives being taken by the Central and the State Governments, the community, civil society organizations and media also have a key role to play in achieving our goal of moving together, towards a safer India.

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C Asokan, Research Scholar in Social Science, RUHSA Department, CMC, Vellore.

Dr. T Thasian, Senior Selection Grade Training Officer, RUHSA Department, CMC, Vellore.

COMMUNITY BASED APPROACHES FOR DISASTER

T Selvam

Disaster - Indian Scenario

The super cyclone of Orissa (1999), the Gujarat earthquake (2001) and the Tsunami (2004) affected millions across the country leaving behind a trail of heavy loss of life, property and livelihood. Table 1 shows a list of some of the major disasters that have caused colossal impact on the community. (The secretary, CBSE, 2006)

Table 1: Major Disasters in India Since 1970

S. No	Disaster	Impact
I	**Cyclones**	
1	29th October 1971, Orissa	Cyclone and tidal waves killed 10,000 people
2	19th November, 1977, Andhra Pradesh	Cyclone and tidal waves killed 20,000 people
3	29the and 30th October 1999, Orissa	Cyclone and tidal waves killed 9,000 and 18 million people were affected
II	**Earthquakes**	
1	20th October 1991 Uttarkashi	An earthquake of magnitude 6.6 killed 723 people
2	30th September 1993 Latur	Approximately 8000 people died and there was a heavy loss to infrastructure
3	22nd May 1997 Jabalpur	39 people dead
4	29th March 1997, Chamoli	100 people dead
5	26th January, 2011, Bhuj, Gujarat	More than 10,000 dead and heavy loss to infrastructure
III	**Landslides**	
1	July 1991, Assam	300 people killed, heavy loss to roads and infrastructure

2	August 1993, Nagaland	500 killed and more than 200 houses destroyed and about 5 kms. Road damaged.
3	18th August 1998, Malpa	210 people killed. Villages were washed away
IV	**Floods**	
1	1978 Floods in North East India	3,800 people killed and heavy loss to property
2	1994 Floods in Assam, Arunachal Pradesh, Jammu and Kashmir, Himachal Pradesh, Panjab, Uttar Pradesh, Goa, Kerala and Gujarat	More than 2000 people killed and thousands affected

Community Based Approaches for Disaster: Every country is at the risk of exposure to some type of disaster, whether natural or man-made. In order for each country to prepare for any kind of disaster, it must inform its citizens about the different types of disasters. The local residents must also be aware of how they can effectively participate in preparing for a disaster, mitigating potential impacts of a disaster and the recovery process after a disaster.

Rationale for a Community-Based Approach: All governments are responsible for protecting their citizens and endorsing the 2005 Hyogo Declaration which states that: "strengthening community level capacities to reduce disaster risk at the local level is especially needed, considering that appropriate disaster reduction measures at that level enable the communities and individuals to reduce significantly their vulnerability to hazards" (COL, 2010).

Members of a community are the immediate victims of adverse effects of a disaster. They have the best knowledge about their local surrounding in terms of the most disaster-prone areas, the demography of their community and their social and traditional organisation. It is important that they have the capacity to cope with the impacts of a disaster and are involved in the development of disaster management activities, right from the initial planning stages. Community participation can also make them more confident in their capabilities to act in the event of a disaster leading to a self-reliant community (Newport & Jawahar, 2003).

Stakeholders' Roles and Responsibilities

Government: To have an effective and sustainable impact on the community-based disaster programmes, policy makers should consider incorporating community- based disaster programmes into their drafting of appropriate acts and regulations in order to implement them effectively. The governments have a prime responsibility for managing disasters and for taking into consideration the roles taken by different people in the community in terms of developing and providing approaches and strategic actions which can be used to

manage the consequences of disaster within the community. Community-based disaster initiatives produce results so long as there is also government support.

Non-Government Organisations (NGOs): NGOs are the appropriate organisations to conduct community-based disaster activities at the different communities and with different stakeholders. They consist of professionals, activists and grass-roots people who have wide networks which facilitate their capacity in programme development.

Regional and International Organisations/Donor Agencies: Selected donor agencies, regional and international organisations assist the communities in terms of initiating the community-based disaster programmes and providing financial assistance and sometimes resource people for the programmes.

National Organisations: National organisations such as women's committees, youth groups, schools, religious groups, etc. should consider adapting the community-based disaster initiatives provided by the government, regional and international organisations as part of their overall disaster risks management. They are the main bodies in the community that can assist in the implementation of the community-based disaster programmes effectively.

Local Governments: The most common elements of the community-based disaster involvement are partnership, participation, empowerment and ownership by the local people. Thus, it is the responsibility of the local government to ensure that there is an effective partnership in place, plus participation, empowerment and ownership by local people in their communities towards disaster reducing initiatives and programmes.

Community Workers: Community workers are the most reliable arms of the local government in the implementation stage of the disaster policy and reduction initiatives. They have experience in handling disasters, hazards, emotional problems and coping mechanism and uncertainties. They assist the local government in establishing a strong cooperation and understanding among diverse stakeholders including the local government, local NGOs, government, regional and international organisations.

National and Local Disaster Managers: Disaster Managers are the disaster professionals and technical people in the national government, who are responsible for the implementation of the disaster management initiatives of the country. Since the communities are important parts of the national government, these disaster professionals and managers should be aware that the key aspect of community-based disaster initiatives is its sustainability. Therefore, it is the trainers, local managers and/or national managers' roles and responsibilities to train people in the community to understand the basic community-based disaster mitigation practices.

Trainers: Trainers provide training to the community leaders and agents, which include activities that aim at assessing the people's capacity and vulnerability in relation to community-based disaster happenings. Trainers' responsibility is also to develop and provide proposals about possible awareness activities aimed at the improving the assessed capacity and decreasing the vulnerability rate of the community residents.

Grass-Root people: People at the grass-roots should understand their own disaster risks and be well versed in taking actions against such risks.

Methods of Dissemination

The methods of dissemination that can be utilized in the Community Based Approach are varied and depend entirely on the needs of the community and the resources available on hand.

The Simple Hazard Map: It is basically a map of the local community which points out safe escape routes and safe refuges as a guide to where people can run and where they can gather if there is a hazard event. Simple hazard maps generally map out areas of risk and lead to action to reduce risk in those areas. It enables people to take the correct escape routes and gather at safe places when disaster strikes. It helps save many lives, homes and belongings which would otherwise be lost in a disaster.

Posters and Videos: Posters and leaflets on natural, technical and manmade disasters and their impacts can be produced and distributed or put up on community notice boards. The production and viewing of videos on past disasters can also be shown to communities to highlight important issues in preparation for or in response to disaster.

Community Theatre (Drama): A different but exciting method used in the dissemination of information that you may have heard of is community theatre. The delight of theatre groups to dramatize disaster management awareness message is a medium that is very powerful. During the awareness meetings, a mobile theatre group or a local group can highlight the event with classical important messages.

Informal Training: The Community Based Approach to Education and Awareness in Disaster Management also uses informal training as an efficient tool to prepare communities in the event that disaster strikes. This training takes place not only outside of the formal curriculum but often even outside the setting of a formal learning or training institution. Informal training is sponsored by the government, NGOs or other donor funding agencies. It targets community leaders and covers important information for people in disaster prone communities.

Workshops: Workshops are excellent examples of informal training provided to the community. A week long workshop facilitated by experts in disaster management for community leaders covers enough information, examples, activities and discussion to adequately prepare them in the event that disaster strikes. In this situation, the education officers, teachers and schools will be involved within their own structure. The Government Officers which includes education staff, in the divisions form teams to organize the workshops to the communities. One can see that the dissemination of knowledge and awareness to community leaders is in turn transferred to other members of the community. This is done by gathering all the members of the community at a communal meeting place (e.g. a community hall, religious place or place for traditional meeting) and imparting this information to the rest of the community. In doing so, the community at large will be aware and better prepared to cope in the event that disaster strikes.

Mass Campaigns: The mass campaign is a huge undertaking whereby the countries and international donor agencies will be participating. The governments, the donor funding agencies, the non-government organizations (NGOs), the communities and other possible stakeholders need to cooperate fully by pooling resources. The outcomes must meet the objectives of the process. So the planning of the entire operation is crucial.

- Women's groups: It is imperative that women's groups should also play a leading role in the dissemination of information amongst their structures either within women's organization or Ministry and Department responsible for Women's Affairs and other sub-women's groups.

- Youth Groups: Youth holds the future of disaster management in their hands. They are resourceful people who need guidance to display leadership skills to be spearheading the implementation stage.

Mock Exercises: Another kind of informal training given at the community level is the use of mock exercises in reducing disaster risks. Community leaders from high risk communities are encouraged to organize occasional mock exercises so as to familiarize their communities with escape routes, safe areas to gather, etc.

Community Based Action Plan: Community leaders can also create Community Based Action Plans specific to their needs. This action plan incorporates the hazard map, mock exercises and other important methods, skills and information needed in preparation for a disaster. The implementation of a community-based action plan involves a long process.

Implementation Actions: Through participatory planning, a Disaster Management Plan can be formulated. In most cases, it may include a few small scale activities whereas in other communities, it may entail a comprehensive disaster management project. To oversee and monitor progress of implemented activities, there is a need for establishment of a central management body. This body or organization will have numerous roles from planning, implementation, monitoring and review phases of planned activities.

Such a body or organization may differ from community to community and may have different names but its roles and responsibilities are essentially the same. Community Disaster Management Organization (CDMO) is a type of community based organization and its primary role is to ensure whether the planned activities are implemented on time within the given resources.

The success of activities of the disaster management plan will depend on the successful operation of the CDMO and will include various tasks and processes, e.g. tasking, mobilizing community resources, capacity building, monitoring and review and making necessary adjustments.

Tasking: The CDMO should be responsible for setting up appropriate committees to implement the various necessary risk reduction measures such as risk communication, health, evacuation, early warning, agricultural etc. The CDMO should ensure that committees responsible for risk reduction measure are clear on the roles assigned to them and each has access to individuals and groups with necessary skills and expertise to implement the tasks assigned to them. To ensure that these activities can be carried out, the CDMO could mobilize the broader community and its resources. The CDMO should also assign at least one person to carry out each of the following roles
- Leadership role – to have overall responsibility for activities of the committee
- Management role – to ensure implementation of agreed activities
- Administrative role – to assist in management
- Technical role – to provide inputs
- Financial management role – provides proper accounting
- Social mobilization – to mobilize community resources

Capacity Building: To implement their respective tasks, it is imperative that responsible individuals and committee members have the technical capability. Without capacity building, the quality of risk reduction measures will be compromised. Depending on the local situation and the existence or non-existence of a CDMO, capacity building can be done either before the start of participatory risk assessment and planning or during the implementation process.

Mobilising Resources: During the participatory disaster risk assessment and planning stages itself resource mobilization commences. To ensure the availability of resources at all times, it should continue through to the implementation phase. Should there be a lack of required technical skills within the community, it is the responsibility of the CDMO to mobilize external partners and stakeholders, e.g. relevant government departments and ministries, NGOs and local business organizations to meet the needs. It should also involve mobilization of resources to build capacity of the CDMO members and committees, and mobilization of appropriate range of resources e.g. human, physical/material, natural and financial.

Monitoring: It should be a vital role of the CDMO to arrange participatory monitoring activities in order to track progress on implementation of the risk reduction measures. This includes monitoring of progress on activities, time frames, budgets, indicators, outputs and objectives and the impact of risk reduction measures. The CDMO should also monitor those who would be negatively affected and those who have dropped out and if so find out why. All stakeholders should be involved in the participatory monitoring system to ensure their particular needs are met in relation to what they would like to monitor, how and when data can be collected. This monitoring system will involve data collection, review meeting and reporting. It is essential that periodical review of the progress being achieved in the implementation of risk reduction measures.

Conclusion

Managing disaster is a challenging task for any nation even if it is developed. The information is provided to have basic knowledge on community based approach to disaster management. Meticulous planning, suitable human resource, appropriate technology and approach could manage the disaster more effectively.

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T Selvam, Project Officer, Sacred Heart College, Tirupattur-635 601, Vellore Dt.

THE ROLE OF COMMUNITY BASED TASK FORCE COMMITTEES (TFC) IN DISASTER MANAGEMENT

CR Christi Anandan

Introduction

Disaster Management (DM) has become a major concern of any Government in this globalised era. The tune of disasters is unexpected and the increased vulnerability of populations to the natural disasters such as earthquakes and other regional disasters including cyclones, tsunami, volcanic activity, etc., has raised the interest of Governments to implement Disaster Management Policies. Hence the Governments focus more on Disaster prevention, preparedness and disaster response rather than the rehabilitation and reconstruction considering the cost of the latter. The loss of lives, livestock, properties and livelihood of the common people are reduced through formation of Rapid Disaster Response Force and the awareness through Information and Communication Technology (ICT). But the efforts of Government go in vain if there is no response from the community affected. That points to the need for community involvement in disaster management. And the success stories of Community Based Disaster Management (CBDM) are the evidence of its effectiveness. Here the author is going to discuss the role of the Community Task Force Committees (TFC) in CBDM.

Community Based Disaster Management (CBDM)

The most effective measures the Governments ever thought of to face the disasters is to raise awareness through education and public awareness programmes at every local community. To raise public awareness, the Non Governmental Organisations (NGO) and volunteers were very much partnered with the Government. But lack of cooperation and involvement of communities leads to failure of the system established in disaster management. The main reason behind this failure is the inability of the Government to continue its initiatives of offering disaster education and awareness programmes to local communities year after year, lack of monetary support to the NGOs. Hence lack of ownership of the communities and public, let the plans and programmes go in unproductive. Thus the concept of Community Based Disaster Management has come in to play an important role in the Disaster Management Cycle.

The traditional DM plans and policies have felt the need of the awareness among the public towards the disasters and disaster management in reducing the loss and effects of disasters but failed to involve the communities. The CBDM has ensured the involvement of the community members in Disaster Management by understanding their vulnerable conditions and about the nature of possible disasters. This helps them to draw a Community Safety Plan and an Emergency Operation Plan (EOP), which comes in hand to safeguard themselves from the unforeseen disasters and reduce the loss of lives and properties.

The sustainability of any plan or programme lies in the coordination and cooperation of stakeholders. Further it is also sustained through the organised structures in the communities. Thus the CBDM builds its base through the representation of community members to form community Task Force Committees (TFCs) to sustain its efforts of awareness and disaster education in the communities.

Formation of Task Force Committees

TFCs in the communities are formed by the Government and Voluntary agencies involved in the CBDM activities to sustain their efforts in the communities even after their intervention. These agencies train them with the skills of vulnerability analyses and disaster response through Participatory Rural Appraisal (PRA) and by the mock operations of rescue and relief. The above trainings are offered by experts of the voluntary and Government agencies customised to the need of the local community in addressing the disasters prone to their region and other common disasters. The members of these TFCs are usually customised with the volunteers of the community and with the representatives from various community and social groups. The most important representation expected is from Panchayat Raj Institutions (PRI), Local Leaders, Youth Groups, Women Self Help Groups and Children's clubs (like Children's Parliament) so as to ensure the participation of community. This also ensures the representation of spokespersons from all levels of community and their viewpoints at every planning and implementation.

The need for Task Force Committees

The Voluntary agencies or the Government cannot train every member of the community with the skills and strategies of Disaster Management considering the time and financial requirement to train. As a cost effective measure, it is easy to train a group of persons who in turn take the responsibility of educating their own community members. It is a multiplier effort which can generate the leadership and coordination that can sustain and improve the systems of Community Based Disaster Management (CBDM).

Moreover the availability of Rapid Disaster Response Force is not possible immediately at every disaster situation. There is a need for a Task Force Group to address the situation and organise rescue

operations with the available local resources. On the call of emergency until the relief the community cannot wait for the Volunteers and Government to carry forward the disaster response activities. Therefore, the TFCs are established with the wise thinking and experiences of the elders and with the vitality of the youth to carry out the community disaster prevention, preparedness and response plans.

The Role of Task Force Committees in CBDM

These TFCs develop community vulnerability map and disaster management plan with the participation of experts. TFCs are also responsible to educate and communicate the vulnerable condition of their community to every member and bring it to their awareness on community safety plan. This enables the social groups and youth to respond to the situation immediately through the activities of guiding the vulnerable populations such as elders, children and differently able persons to the safer locations of the community.

The TFCs evolve as Community Based committees and take the responsibility of organising human resources of their community, effectively and efficiently. Thus the community delegate its responsibilities by forming Task Force Groups for various issues in the Community Based Disaster Management like:

   i. Early Warning Task Force Group
  ii. Search and Rescue
 iii. First Aid
 iv. Water
  v. Sanitation & Hygiene

These Task Force Groups ensure to warn the community and to provide safety plan along with the education required. Moreover these TFCs stand as support to the communities, which are frequently affected by the natural and man-made disasters. Though all communities are not guided for the formation of the above five types of TFCs, in common are trained in the skills for the above-mentioned areas of training. Therefore, they act as a significant force in reducing the vulnerability of the community.

Conclusion

The Government and Voluntary agencies cannot make their presence at all times and at the unexpected situations. As an alternative and raising the sustainability of the communities the Task Force Committees were formed. These Committees were seen as an alternative to the voluntary agencies and even termed as Community Based Organisations in few parts of the Nation. The integration of Village Development Plan and Community Safety Plan has enabled the communities to have greater strides in the development scenario.

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CR Christi Anandan, Assistant Professor, PG & Research Department of Social Work, Sacred Heart College (Autonomous),Tirupattur, Vellore Dt.

DISASTER MANAGEMENT – SOCIAL WORKERS' ROLES

Dr. S. Paul Raj

Introduction

Of 6185 Disasters between 1994 and 2003, 947 in South Asia and 1217 in East Asia and Pacific, the Tsunami in 2004 has strengthened the need for a regional focus on the need for cooperation in disaster response. Disaster means a catastrophe, mishap, calamity or grave occurrence affecting any area from natural and man-made causes, or by accident or negligence, which results in substantial loss of life or human suffering or damage to, and destruction of property, or damage to, or degradation of environment and is of such a nature and magnitude as to be beyond the capacity of the community of the affected areas. 'Disaster' is defined as a crisis situation causing wide spread damage which far exceeds our ability to recover. Thus, by definition, there cannot be a perfect ideal system that reverts damage, because then it would not be a disaster. It has to suffocate our ability to recover. Only then it can be called as 'disaster'. In contemporary academia, disasters are seen as the effect of hazards on vulnerable areas. Hazards that occur in areas with low vulnerability do not result in a disaster; as is the case in uninhabited regions. (Quarantelli, 1998).

Disasters are not totally discrete events. Their possibility of occurrence, time, place and severity of the strike can be reasonably and in some cases accurately, predicted by technological and scientific advances. It has been established that there is a definite pattern in their occurrences and hence we can, to some extent, reduce the impact of damage though we cannot reduce the extent of damage itself. The phases of all disasters, be it natural or man-made, are the same. The disasters often differ in quantity of damage caused or in quality of the type of medical consequences. For example, earthquakes cause a lot of physical injury and fractures, floods cause drowning deaths and infections, chemical leaks cause toxic manifestations, etc.

Across the world or in our own backyard, disasters have devastating results due to inadequate preparation, the latest being the tsunami that hit the southern parts of India. Since natural calamities tend to be unavoidable and earthquakes unpredictable, efforts have to be made to withstand the aftermath of catastrophes.

Disasters are the biggest threats to humanity at present. Each year Disasters take a heavy toll on human life and property. They may strike in the form of Earthquake, Flood, Cyclone, Drought, Hurricane, Hail Storm, Fire, Natural / Chemical Warfare, Bio-territories, etc. Indeed the frequencies and severities of disasters are increasing every year and it is a great concern to all countries in the world. Disasters, Natural or Man-made, not only result in colossal loss to life and property, but also leaves heart-breaking, suffering, trail of trauma and agony to the survivors. Development activities get hindered as efforts are diverted to mitigation. Further, ecological imbalance, global warming issues along with unplanned development activities have made the modern world vulnerable to more risk.

Tsunami of 26 December 2004, the great natural disaster happened in our country, made the people understand the effects of a disaster for the first time. Natural disasters take a heavy toll on human life and property. The United Nation Organizaiton (UNO) estimates that in the past couple of decades almost three million people have lost their lives to natural disasters and around eight hundred million have been severely affected by them. Every year, at least four cyclones of varying intensity hit parts of India's nearly 6,000 km long coastline, earthquakes of varying magnitude rock northern India and hundreds die of severe cold/heat waves in north India.

India is also prone to various natural as well as manmade disasters; similarly many parts of northern Indian peninsula are prone to earthquake disasters, including Delhi, the capital of India and landslides in Himalayas and Nilgris, Floods in Assam, Bihar, Gujarat and other parts, Drought in Odisha, Gujarat, Bihar, Andhra Pradesh, and Tamil Nadu, etc. India has also experienced three major natural disasters, viz., 1999 'Super Cyclone' in Odisha, the Gujarat Earthquake and the Tsunami Disaster in Tamil Nadu Coastal areas. Similarly, the state of Tamil Nadu also faces frequent disasters like cyclones, floods, droughts, landslides, road accidents, etc, year after year, causing large number of lives, huge amount of properties damaged or destroyed and inducing loss of huge amount to our economy.

Realising the seriousness, UNO has declared the last decade 1991 to 2000 as International Decade for Natural Disaster Reduction. Responding to this, all countries in the world, both Developed and Developing countries, have given utmost importance to develop and strengthen their capacity to respond and manage disaster situations effectively. Further, paradigm shift was suggested in disaster management activities, i.e., from traditional relief and rehabilitation activities to preparedness and mitigation activities.

Therefore, it has been realized that there is a need to prepare all sections of society in the area of Disaster Management in advance, particularly to government officials, elected representatives of Panchayat Raj Institutions, functionaries of NGOs, etc., so as to save precious lives and minimize the damages to properties. It was witnessed by everyone during the 2004 Tsunami, that the social workers and NGOs were the first ones to get into the relief operations.

Roles of Social Workers

Social workers can fill many roles in the wake of a national disaster. In addition, we have the expertise to address many of the issues people face in the wake of a disaster such as housing, unemployment, and restructuring dismantled social systems. Social Workers have the scope of playing various roles during and after a disaster. Disaster management cycle includes the following stages/ phases: 1. Disaster phase, 2. Response phase, 3. Recovery/ Rehabilitation phase, 4. Risk Reduction/ Mitigation phase and 5. Preparedness

phase. The social workers have a major role to play in all phases of disaster management cycle except during the first one, i.e., Disaster Phase.

Response phase: During the response phase, which is the period that immediately follows the occurrence of the Disaster, all individuals respond to the disaster, but in their own ways. The response phase includes the mobilization of the necessary emergency services and first responders in the disaster area. This is likely to include a first wave of core emergency services, such as fire fighters, police and ambulance crew. They may be supported by a number of secondary emergency services, such as specialist rescue teams.

The social workers need to organize the volunteers, coordinate the work to be carried out and to share responsibilities among everyone so that confusion and duplication of work would be avoided. Needless to say that they have to play a major role in (a) Saving Lives; (b) Coordinating the undisturbed transport facilities; (c) Providing medical assistance; (d) Identifying the victims; (e) Provision of food and water for the affected; (f) Counseling the people who lost their near and dear ones; (g) Bringing the volunteers together and Coordinating them; (h) Approaching the Government officials and mobilizing the services and resources; (i) Formation of groups to carry out the various relief activities; (j) Making sure that proper documentation and recording is done; (k) Bringing order among the victims in receiving the help from various organizations; (l) Providing health care to the needy; and, (m) Prevention of any corruption in relief operations. It is the phase during which the social workers should act vigorously to have control over every aspect of help rendered to the victims of disasters. Social workers need to respond according to our various roles, but also need to respond in a flexible way that facilitates disaster response in coordination with other responders.

Recovery Phase: When the immediate needs of the population are met, when all medical help has arrived and people have settled from the chaos of the event, they tend to enter the recovery phase which is the most important, in terms of long term outcome. It is during this phase that the victims actually realize the impact of disaster. The aim of the recovery phase is to restore the affected area to its previous state. It differs from the response phase in its focus; recovery efforts are concerned with issues and decisions that must be made after immediate needs are addressed. Recovery efforts are primarily concerned with actions that involve rebuilding the destroyed property, re-employment, and the repair of other essential infrastructure. An important aspect of effective recovery efforts is taking advantage of an opportunity for the implementation of mitigative measures that might otherwise be unpopular. Citizens of the affected area are more likely to accept more mitigative changes when a recent disaster is in fresh memory. It is now that they perceive the meaning of the loss that they have suffered. Social Workers' major role during this phase is to render Medical and Psychiatric assistance to the victims of disaster.

Risk Reduction Phase: The population is expected to return to pre-disaster standards of living. They feel the need for certain measures which may reduce the impact of damage during similar disaster in the future. For example, after an earthquake the population begins to rebuild stronger houses and buildings that give away less easily to earthquakes. In the case of tsunami, to avoid houses very close to the shore and the development of a 'green belt', a thick stretch of trees adjacent to the coast line may be planted in order to reduce the impact of the tsunami waves on the land. The process of making the impact less severe is called Mitigation. Mitigation efforts attempt to prevent hazards from developing into disasters altogether, or to reduce the effects of disasters when they occur. The mitigation phase differs from the other phases because it focuses on long-term measures for reducing or eliminating risk. The social workers need to play a vital role during the Mitigation period. They can play the role of resource persons and guide in helping the people to go for a more viable method of risk reduction in the future.

Preparedness Phase: This phase involves awareness development among the people on the general aspects of disaster. They can be also taught on how to behave during the occurrence of a future disaster. The people need to be educated on warning signs of disasters, methods of safe and successful evacuation and first aid measures. In the preparedness phase, emergency managers develop plans of action for when the disaster strikes. Common preparedness measures include the communication plans with easily understandable terminology and chain of command, development and practice of multi-agency coordination, proper maintenance and training of emergency services, population warning methods combined with emergency shelters and evacuation plans, stockpiling, inventory, and maintenance of supplies and equipment. An efficient preparedness measure is an Emergency Operations Centre (EOC) combined with a practised region-wide doctrine for managing emergencies. Another preparedness measure is to develop a volunteer response capability among civilian populations. The social workers need to be prepared in order to be effective in response and recovery. If they are not organized as a profession to respond to chaotic disasters, one cannot expect to be effective in actions.

Thomas D. Schneid and Larry Collins (2001) are of the opinion that the job of selecting individuals to assist in developing the emergency response plan and of staffing the response team is an important one. The team's strength will depend on the size, scope, and complexity of the facility and its operations.

The objectives of the emergency response planning team may be: (a) To provide more assistance to accomplish the tasks required; (b) To involve more people who then have a vested interest in the plan's success; (c) To enhance problem solving by allowing people with different backgrounds, experience, and expertise to the view the problems from different viewpoints and paradigms; (d) To draw upon the expertise of those individuals who know the operations and processes best.

Are Social Workers' Roles Overlooked?

The media today is faster than anything else in any situation and events especially in disaster situations. They usually give their first attention to the first responders to the disaster. The first responders are usually the public, NGOs and local politicians. The media also highlight the presence and involvement of Cinema Artists in countries like India. Social Work profession as such does not get much of media attention. How do the social workers respond? The professional social workers roles are not clearly stated in the National Association of Social Workers (NASW). As a professional looking for guidelines and directions from a powerful Association, it does not get any such directions from NASW.

In spite of this situation, there are social workers who have responded quickly in the recent disasters in India. The roles played by them have not been given any attention, perhaps it is because usually they do not wear uniforms or they do not wear badges that identify them as 'Social Workers'. It may be because the social workers were not organized to make a collective impact. They still have not moved from energy to 'Synergy'. Individuals try to do something by themselves. Voluntary Organizations respond independently. A cooperative and collaborative approach is the real need today. The social workers and voluntary organizations need to aim at a collective impact, otherwise their roles will be overlooked which would in turn affect the services to the needy.

Conclusion

"Disaster Management training is useful for NGOs, social work students or volunteers providing support and rehabilitation measures during disasters, home guard personnel, paramilitary organisations, civil defence personnel, scientists, meteorologists, and environmentalists. It is also useful for functionaries of rural development and primary health centres, administrative services and relief workers," says Prof. Santosh Kumar, Planning and Policy, National Institute of Disaster Management (NIDM), New Delhi. The Social Workers can take a lead in training not only the Social Workers but also all those who volunteer themselves in preparing for disaster management. Contemplating a future in humanitarian relief, disaster management and other related fields, there are many important factors to consider. One is the amount of hard work involved as well as the readiness to work in really trying circumstances. Humanitarian work can be personally and professionally rewarding. The social workers would need a high tolerance for ambiguity in their roles. Some times their efforts will seem futile; other days, they would find the simplest accomplishment that can deliver great personal satisfaction. Whatever it is, it is their commitment towards the humanity that makes the difference.

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Dr. S Paulraj, Associate Professor, Dept. of Social Work, Sacred Heart College, Tirupattur.

SOCIAL WORK EDUCATION (SWE) APPROACH TO

DISASTER MANAGEMENT EDUCATION (DME)

A Jonas Richard and A Mary Delphine

Introduction

Disasters can strike at any time. In general, the general response to a disaster is in terms of relief and rescue operations, after the event. However, if we are adequately prepared, it is possible to drastically reduce the impact of a disaster. The impact can be reduced through a good understanding of preventive actions, as well as having the knowledge of certain life-saving tools and techniques, which when used at the time of the event of disaster can control the total damage to life and belongings. Education plays a primary and pivotal role in the development of any nation's development irrespective of the size or status of the nation in the economic map of the world. From time immemorial, this crucial and critical factor of education has played an inevitable role in the resource building of any nation. The biggest problem with the disasters is the suddenness and swiftness with which they arrive. Hence, in order to reduce the severity of a disaster the response also has to be equally swift. Therefore success of any disaster management project depends upon how far the team is able to handle the project with high level of professionalism at the same time de-professionalize oneself while dealing with the survivors of disaster. Social work education which prepares the professionals for human service can contribute a lot by integrating the disaster management education (DME) with primary and secondary methods of social work practice.

This paper attempts to address the message that disaster management education can be effectively imparted by incorporating the social work education methods. It consists of two parts: the first one focuses on the nature of disaster management education (DME). The second and the more important one highlights on the suggested areas of integration of social work methods in DME.

Disaster Management Cycle

Disaster management Education: Disaster management Education (DME) basically helps professionals to learn to deal with the disasters whether they are natural or human caused. Disaster management education primarily focuses on two broad areas of disaster management namely **Pre Disaster Phase** and **Post Disaster Phase.**

Pre disaster phase includes Mitigation and emergency preparedness. **Mitigation** efforts are attempts to prevent hazards from developing into disasters altogether or to reduce the effects of disasters. The mitigation phase differs from the other phases in that it focuses on long-term measures for reducing or eliminating risk. The implementation of mitigation strategies is a part of the recovery process if applied after a disaster occurs. **Preparedness** is a continuous cycle of planning, managing, organizing, training, equipping, exercising, creating, monitoring, evaluating and improving activities to ensure effective coordination and the enhancement of capabilities of concerned organizations to prevent, protect against, respond to, recover from, create resources and mitigate the effects of natural disasters, acts of terrorism, and other man-made disasters.

Post Disaster phase necessarily consists of the five stages: Rescue, Relief, Rehabilitation, Reconstruction and Reconciliation. **Rescue** stage primarily aims at rescuing survivors and arranging for their first aid and other treatment processes. **Relief** operations stage includes providing all necessary relief to the disaster survivors to have their basic food, shelter and clothing facilities. **Rehabilitation** is a little long process which concentrates on helping the survivors to get back to normalcy and run their life as before. **Reconstruction** stage includes re establishing the lost infrastructure. **Reconciliation** stage helps people to come in terms with whatever has happened. This stage also focuses on commemoration of the tragic event and to salute the brave souls who must have lost their lives in the rescue operation. Any disaster management education focuses on the above core areas of disaster management and training is mostly given in a lecture method using case study as an approach. Various cases of disasters are studied and lessons are drawn from the examples. Disaster Management Education is provided in the form of certificate and diploma courses. The duration usually varies from 3 months to 6 months.

Importance of Knowledge Management and Education for Disaster Reduction

Knowledge management and education can help communities in hazard-prone areas to gain a better grasp of the ways to cope with risks. Knowledge and innovation, education (formal and informal), are closely linked to disaster-reduction efforts. Disasters can strike at any time and it is the magnitude of the related impacts that will reflect the level of preparedness and 'education' of the exposed country and community. It is now widely agreed that achieving disaster-resilience is essentially a process of using knowledge and of learning at all levels.

Advancement, transfer and sharing of knowledge are key foundations for disaster risk management. When it comes to living with risk, we must embrace education in all its forms, from drills involving disaster simulations in primary and secondary schools to advanced university and post-graduate studies. We must also capitalize on traditional local knowledge about hazards. Nor can there be sustainable development without education in disaster reduction.

Education for disaster reduction and human security should not be a one-off affair, but rather a continuing process, offering individuals lessons in coping with hazards not just once but several times throughout their lives. Furthermore, education and raising awareness of disaster risks must respond to society's changing needs and focus on empowering individuals throughout their lives. Educating all sectors of society on disaster reduction actions is based on application of sound scientific, engineering, and cultural principles to create sustainable systems therefore constitutes a long-term goal.

Disaster Management Education through methods of Social Work practice

The entire focus of the social work programme at every level is to prepare human service professionals who can help individual, groups and communities who are in crisis. The curriculum at the undergraduate and post graduate level consists of theoretical inputs and field experience which is the combination of orientation visits, concurrent field work, small group and individual research assignments and block placement. Social work consists of both primary and secondary methods. Primary methods include Social Case Work, Social Group Work and Community Organization. The secondary methods consist of Social Action, Social Welfare Administration and Social Work Research. It is argued that the above methods can be effectively used to impart disaster management education at graduate and post graduate level in social work education.

Use of Primary Methods of Social Work in DME

Social case work methods can be used to train the trainees on the importance of counseling in the post disaster management phase especially during rehabilitation and reconstruction stages. Specific cases can be taken and used, as each case study will discuss the suggested solutions for that particular case. The students can be assigned simple cases to deal with. Complex cases can be handled with the help of the faculty supervisor who will also act as the field training supervisor for that particular trainee.

Group work can be effectively used to teach the student trainees the use of various group therapies using recreational or therapeutic models. Trainees can be allotted small groups to handle and work with the group to deal with a particular issue. Small groups can be formed even among the trainees to discuss the various disaster management issues periodically. Various research studies have proved that learning takes place better in groups. Disaster management is basically a team work. Hence training on effective team building will help the participants develop a we feeling so that the community's goal is prioritized instead of individuals.

The method of community organization can be very well utilized for the training on disaster management by putting in to practice all the principles of community organization. The trainees can be accommodated in a disaster affected community to understand the realities of the survivors and all the methods of case work and group work can be practised there. The faculty supervisors can take a lead to identify a particular issue and mobilize the community to achieve that particular goal. The best way to understand the effects of the disaster to the community is to stay with the community.

Use of secondary methods of social work in DME

As discussed above, there are 3 secondary methods of social work practice. The following secondary methods of social work can be effectively used to train the students on Disaster management.

Social action can be used as a unique method to teach the trainees to highlight the need for getting united and fighting in a democratic temperament. Specific local disaster issues can be taken for this purpose. Initiation of Government's action for safety related work in a disaster prone area will be a good one. This way the trainees get exposed to pre disaster phase area and the role of social workers.

Social welfare administration is an important area of social work which can be effectively used in the area of disaster management education. The trainees can be allotted to visit different development organizations that are working in the disaster affected areas. The trainees are expected to have exposure to various aspects of planning, implementation and evaluation of all the development activities initiated in disaster affected area.

Social work research can be used to teach the students the importance of research based disaster management. The trainees need to be taught on the importance of evidence based disaster management. This is possible through the effective use of research. Small reach can be taken by students either individually or as a group in a disaster affected area. Some of the areas of research would be studying the attitude, identification of mental health issues, etc. There are also other principles of social work which can be used in disaster management education.

Conclusion

There is an urgent and utmost need for Disaster Management Education at all levels of education. Social work education, which has played a unique role in training individuals to address the various social issues, can be effectively replicated in disaster management education so that there are quality disaster management professionals with a human heart.

A Jonas Richard, Assistant Professor, Post Graduate and Research Department of Social Work, Kristu Jayanti College, Bangalore.

A Mary Delphine, Assistant Professor, St. Justin College of Education, Madurai.

EMOTIONAL INTELLIGENCE FOR LEADERS IN CRISIS INTERVENTION

K. Arockia Raj

Introduction

Various disaster incidents have indicated for effective system to handle the disaster situations.   A greater task is done efficiently mostly by the leaders who are involved in crisis intervention process. This paper emphasizes the need for the emotional intelligence training for the leaders who lead crisis intervention teams. Interpersonal skills and relationship skills are listed in the top 10 training priorities. Emotional Intelligence (EI) is prioritized in the top four self-development criteria for all supervisory personnel.   Interestingly, EI competency has been an important training aspect for all the human resources at the workplace.

Over the history of Psychology, there have been varying degrees of interest in human emotions. The significance of emotions in human behviour however, has definitely seen resurgence over the past few decades, including new theories about how a person's emotional abilities can affect their success in the countless aspects of social interaction, including their ability to lead and influence others. Goleman (1998) indicates that EI simple refers to "… how leaders handle themselves and their relationships". Steiner's (1997) definition points to three major areas of EI, summarized as one's ability to understand their emotions, to empathize with the emotions of others, and to express emotion in a productive manner. It is notable from the number of references available that human emotion is gaining notoriety, and that EI does not appear to be a fleeting phenomenon.

Goleman et al. (2002) suggests that being intelligent about emotions will drive the development of a resonant style of leadership. This resonant style is necessary for cultivating environments of trust, thereby enhancing a leader's ability to inspire others towards a common vision. This includes the ability to consciously apply EI competencies to specific circumstances as a means of better personnel management and leadership.

Bar-on and Handley reinforce this position by providing substantial supportive research regarding EI and its use as a predictor of effective leadership performance.

Weisinger (1998) also finds that EI is a major determinant of workplace success. He discusses the implications of EI on job stress, creativity, adaptation, and fulfillment, suggest that a leader's ability to reinforce such attributes in the workforce can serve to bolster company performance. This paper further suggests that EI assessment tools have potential use for the development of related performance standards if applied to a cross-section of supervisory personnel within our discipline.

Emergency service organizations are generally structured to provide a consistent way of managing resources to accomplish objectives. Incident management is by objectives and not emotion, with the primary focus being the completion of tasks. This management approach works well under critical emergency conditions, such as a building fire.

Applications of EI competence among emergency service officers are presumed to be common throughout the service of disaster preparedness, rescue, relief, rehabilitation and reconstruction. The officers' responsibility spans beyond technical skill sets, and into the arena of human emotion. In any given work-day, he or she might be engaged in conversation with an angry business owner over the enforcement of a local burning ordinance, calming a concerned parent after their child has been injured in a car accident, or assisting an elderly citizen into bed while providing a listening ear for their anguishing cries of loneliness and declining health.

Crisis interventions are often described as being the worst day of one's life business. When called to respond, somebody is having a very bad day and human emotion is at its peak, at least in the life of the caller. At such critical moments, a fire or emergency officer has been granted a great amount of trust. Citizens trust that fire fighters, paramedics, and their supervisors will be professional, skilled, but most of all that they will be truly concerned for the well being of their customers.

Leaders in disaster situations obviously cannot solve every problem, but they can surely recognize that every problem has an effect on human feelings that is unique to every person, time, and circumstance. The presence of emotion should never be overlooked, particularly during times of heightened sensitivity. This is always the case when emergency crews are summoned. An intuitive and emotionally intelligent officer should therefore be better armed to meet the overall needs of the caller, including their emotional needs. Emotional Intelligence is the essential capacity of any emergency service leaders apart from their qualification and experience. The following are the components of Emotional Intelligence developed by Daniel Goleman, which this paper presents as essential quality for emergency service leaders as they work with leaders in crisis intervention or disaster management (Doyle:2000).

I: SELF - AWARENESS

Emotional Awareness: Rapid action and decision making requires appropriate emotional analysis and awareness. A leader needs to become aware of his emotions, which are imperative for effective decision making and delegation of task. S/he needs to analyse the causes and the consequences of the emotions s/he undergoes. Hence, emotional awareness would mean how a leader recognizes his or her emotions and their effects. Leaders with this competence would know which emotions they are feeling and why and realize the links between their feelings and what they think, do, and say, recognize how their feelings affect their performance, have a guiding awareness of their values and goals (Bar-On & Handley:1999).

Accurate Self-Assessment: A leader in a crisis intervention needs consistently make an assessment of his own emotions and their strengths and limits. Leaders with this competence are aware of their strengths and weaknesses. They need to be reflective, learning from experience. They open to candid feedback, new perspectives, continuous learning, and self-development and they are able to show a sense of pleasant and temperament in their dealings and perspective about themselves.

Self-Confidence: A leader who is autonomous in decision making, with a variety of options during any crisis intervention, confirms an action with the sureness about his or her self-worth and capabilities. Leaders with this competence would present themselves with self-assurance. They can voice views that are unpopular and go out on a limb for what is right. They are decisive, able to make sound decisions despite uncertainties and pressures.

II: SELF - REGULATION

Self-control: Impulses are enemies for efficiency. A leader, who is in a crisis intervention, manages disruptive emotions and impulses. Leaders with this competence manage their impulsive feelings and distressing emotions well. They stay composed, positive, and unflappable even in trying moments and they need to think clearly and stay focused under pressure.

Trustworthiness: A leader is accepted by a team or by the agency with a lot of hope and trust. Leaders need to maintain standards of honesty and integrity. Leaders with this competence act ethically and are above reproach. They build trust through their reliability and authenticity. They admit their own mistakes and confront unethical actions in others and they take tough, principled stands, even if they are unpopular.

Conscientiousness: Success or failures of a team lies in the hands of the leaders and a leader ought to take responsibility for personal performance. Leaders with this competence meet commitments and keep promises.

They hold themselves accountable for meeting their objectives and they are organized and careful in their work.

Adaptability: Crisis situations would be full of confusions and dilemmas. There is a greater need for flexibility in handling information, people, technology, agency and decisions. Leaders with this competence smoothly handle multiple demands, shifting priorities, and rapid change. They adapt their responses and tactics to fit fluid circumstances and they are flexible in how they see events.

Innovativeness: Innovations take place in an open environment for suggestions, feedbacks and criticisms. Being comfortable with and open to novel ideas and new information are very important for a leader who is in a crisis intervention. Leaders with this competence seek out fresh ideas from a wide variety of sources. They entertain original solutions to problems and generate new ideas. They take fresh perspectives and risks in their thinking.

III: SELF – MOTIVATION

*Achievement Drive***:** Effective leaders are calculative risk takers. This intention emerges with the achievement drive. They **s**trive to improve or meet a standard of excellence even in the interventions or in crisis situations. Leaders with this competence are results-oriented, with a high drive to meet their objectives and standards. They set challenging goals and take calculated risks. They pursue information to reduce uncertainty and find ways to do better and they learn how to improve their performance.

Commitment: Commitment in the given task is the hall mark of every successful leader. Commitment paves way for success, which moves forward the work during the crisis intervention by aligning with the goals of the group or organization. Leaders with this competence would readily make personal or group sacrifices to meet a larger organizational goal. They find a sense of purpose in the larger mission. They use the group's core values in making decisions and clarifying choices and actively seek out opportunities to fulfil the group's mission.

*Initiative***:** Initiatives are very important to handle situations with multi-faceted approaches. A leader needs to be ready to act on opportunities. Leaders with this competence are ready to seize opportunities. They pursue goals beyond what is required or expected of them. They cut through red tape and bend the rules when necessary to get the job done and they mobilize others through unusual and enterprising efforts. Initiative from the leader is important to tap the human and non-human resource needs during the intervention.

Optimism: A leader who says 'possible', motivates self and others during the process. Persistence in pursuing goals despite obstacles and setbacks are essential qualities of an effective and successful leader. Leaders with

this competence persist in seeking goals despite obstacles and setbacks. They operate from hope of success rather than fear of failure and they see setbacks as due to manageable circumstance rather than a personal flaw.

IV: SOCIAL AWARENESS

Empathy: Empathy is an attitude that enables a leader to commit to the cause. Empathy reduces the feeling of burden, tiresome and an effective leader sense other's feelings and perspective, and taking an active interest in their concerns (Bradberry: 2003). Leaders with this competence are attentive to emotional cues and listen well. They show sensitivity and understand other's perspectives and they help out based on understanding others.

Service Orientation: Salary is an important component, which satisfies any employee. The service orientation motivates a leader to commit to the cause. They anticipate, recognize, and meet the stakeholders' needs. Leaders with this competence understand victims' needs and match them to services or benefits. They seek ways to increase victims' satisfaction and loyalty. They gladly offer appropriate assistance and grasp a victims' perspective, acting as a trusted advisor.

Developing others: It is an important task of a leader to motivate team members and others to initiate the required actions during any crisis situation in a rapid manner. Sensing what others need in order to develop, and bolstering their abilities is very imperative. Leaders with this competence acknowledge and reward leaders' strengths, accomplishments, and development. They offer useful feedback and identify leaders' needs for development and they mentor, give timely coaching, and offer assignments that challenge and grow a person's skills.

Leveraging Diversity: Synergy is highly expected from leaders to succeed in any crisis intervention process. S/he needs to cultivate opportunities through diverse leaders. Leaders with this competence respect and relate well to leaders from varied backgrounds (Sheldrick: 2002). They understand diverse worldviews and are sensitive to group differences. They see diversity as opportunity, creating an environment where diverse leaders can thrive and they challenge bias and intolerance.

Political Awareness: Leaders play a middle role between the victims and agency or government. Hence, reading a group's emotional currents and power relationships is essential. Leaders with this competence accurately read key power relationships (Claude: 2005). They detect crucial social networks and understand the forces that shape views and actions of victims, agency, or other team leaders. They accurately read situations and organizational and external realities.

V: SOCIAL SKILLS

Influence: Leaders ought to influence the team, system and process in a rapid manner towards effective intervention (Johnston: 1999). Wielding effective tactics for persuasion is highly needed. Leaders with this competence are skilled at persuasion and have fine-tuned presentations to appeal to the listener. They use complex strategies like indirect influence to build consensus and support and orchestrate dramatic events to effectively make a point.

Communication: Effective communicative system makes the crisis intervention effective and easier by sending clear and convincing messages. Leaders with this competence are effective in give-and-take, registering emotional cues in attuning their message. They deal with difficult issues straightforwardly. They listen well, seek mutual understanding, and welcome sharing of information fully and foster open communication and stay receptive to bad news as well as good.

Leadership: There are four different types of leadership such as autocratic, democratic, bureaucratic and laissez-faire. It is important to adopt inspiring and guiding as tool for effective leadership. Leaders with this competence articulate and arouse enthusiasm for a shared vision and mission (Hunter: 2004). They step forward to lead as needed, regardless of position. They guide the performance of others while holding them accountable and lead by example.

Change Catalyst: Positive and peaceful change is the end of every crisis intervention. It is important to initiate or manage change. Leaders with this competence recognize the need for change and remove barriers (Cooper: 1996). They challenge the status quo to acknowledge the need for change. They champion the change and enlist others in its pursuit and model the change expected of others.

Conflict Management: Crisis intervention includes the difference of opinions, differences in strategies adopted on the process (OPFD Way: 2007). Conflict management is about negotiating and resolving disagreements. Leaders with this competence handle difficult leaders and tense situations with diplomacy and tact. They spot potential conflict, bring disagreements into the open, and help de-escalate. They encourage debate and open discussion and orchestrate win-win solutions.

Building Bonds: Relationship with the stakeholders is essential during any crisis intervention. It is important to nurture instrumental relationships. Leaders with this competence, cultivate and maintain extensive informal networks. They seek out relationships that are mutually beneficial. They build rapport and keep others in the loop and make and maintain personal friendships among work associates.

Collaboration and Co-operation: Success is achieved with the higher level of cooperation and collaboration. Successful leader would work with others toward shared goals. Leaders with this competence balance a focus on task with attention to relationships. They collaborate and share plans, information, and resources. They promote a friendly, cooperative climate and spot and nurture opportunities for collaboration.

Team Capabilities: Effectiveness in the leadership is recognized by the cooperative efforts of the team members. Creating group synergy in pursuing collective goals is essential. Leaders with this competence model team qualities like respect, helpfulness, and cooperation. They draw all members into active and enthusiastic participation and build team identity, esprit-de-corps, and commitment.

Conclusion

Frequent trainings to the leaders on applying Emotional Intelligence in their work would enable them to effectively organize the manpower, take right decision, implement appropriate communication, identify risk factors, predict disaster situations, delegate powers, network with other agencies. Emotionally intelligent leaders would be efficient in inner-self and professional self.

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K Arockia Raj, Asst. Professor, PG & Research Dept. of Social Work, Sacred Heart College, Tirupattur, *Vellore Dist.*

List of the Institutions that participated in the National Conference

1. Centre for Disaster Management & Mitigation, (CDMM), VIT University, Vellore
2. Gandhigram Rural University, Dindigul
3. Amrita University, Coimbatore
4. Loyola College, Chennai
5. Stella Maris College, Chennai
6. Madras Christian College, Chennai
7. Don Bosco Arts & Science College, Angadi Kadavu, Kerala
8. Kristu Jayanthi College, Bengaluru
9. Mar Gregorius Arts & Science College, Chennai
10. Sindhi College of Arts & Science, Chennai
11. DRBCCC Hindu College, Chennai
12. Arignar Anna Govt. Arts & Science College, Karaikal
13. Voorhees Arts & Science College, Vellore
14. Don Bosco Arts & Science College, Dharmapuri
15. District Forest Office, Vellore Dt
16. Phoenix Resource Centre, Chennai
17. St. John's Ambulance, Hosur
18. 108 Ambulance Service, Vellore Dt
19. Restless Development, INGO, Chennai
20. Foundation for Sustainable Development, Ambur