

# Alternative Technologies in Educating for Enhanced Community Participation in Earthquake Disaster Risk Reduction

**DR PAPORI RANI BAROOAH  
GIRLS' POLYTECHNIC  
GUWAHATI, ASSAM  
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# BACKGROUND

- **The Indian Subcontinent is highly prone to disasters - North East Region – earthquake Zone V**
- **The occurrence of major earthquakes is a common phenomenon in the country – 1897, 1950**

- **We are prone to floods, landslides and thunderstorms**
- **Awareness and preparedness of such a possible disaster is the **prime need of the hour** - to minimize the loss**
- **India being a vast country with different socio cultural setup – we have found many difficulties in spearding awreness**

- So, we tried to prepare materials for **the people at various level** from professionals to illiterate laymen

# ***AFTER AN EARTHQUAKE***



## DEFINING VULNERABILITY

- **IMPOSSIBLE TO STOP nature's fury**
- **So we need to take measures for a peaceful co-existence with it - **measures to reduce their impact****
- **The vulnerability of societies to disasters in India or in any developing nation is **ascertained by a number of factors inherent in the characteristics of the place.****

- **Three key factors that directly ascertain the disaster-vulnerability of a society are as follows:**

- 1) **Population density** -Population of an area actually gives an estimate of the risk of damage.
- 2) **Lack of a system in the form of a proper 'disaster management framework'**
- 3) **Lack of awareness about disaster preparedness**

In an earthquake disaster situation, a **quick rescue and relief mission** is inevitable.

Considerable damage can be minimized if **adequate preparedness** levels are achieved.

**Dismantling of knowledge and information to the common man** is of utmost necessity.

**DO YOU KNOW WHAT TO DO DURING AN EARTHQUAKE?**

the American Red Cross and AICALA Crisis Management Team advise you to

- DROP** TO THE FLOOR
- TAKE COVER** UNDER A TABLE
- HOLD** ON UNTIL THE SHAKING STOPS

If an earthquake occurs while you are on campus, Crisis Management Team members will keep you informed of all further steps to be taken.



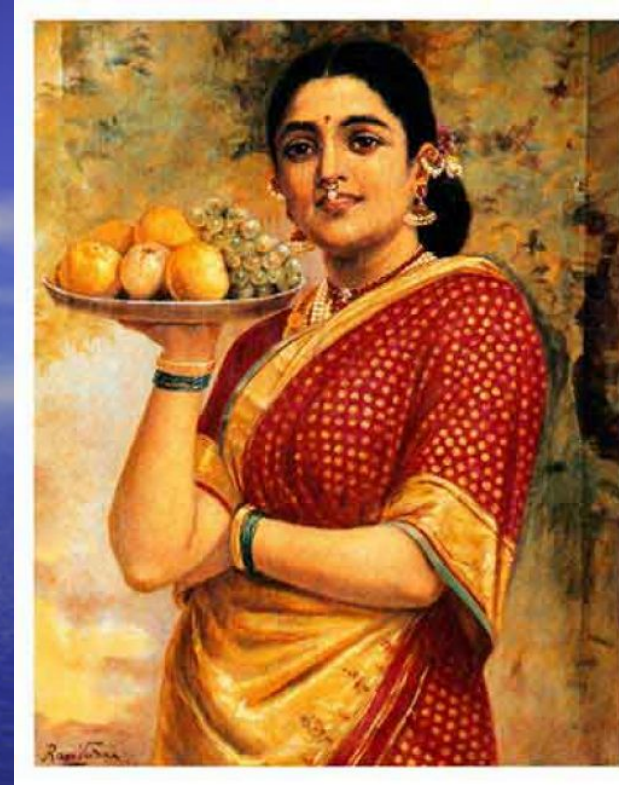
- Special groups such as **women, disabled persons, children** etc. are more vulnerable in an emergency situation and require special attention.
- Several earthquakes show that **women are usually worst affected** when the disaster strikes.
- The women are not only victims but also agents of change.
- In India, 73% of the population resides in **rural areas** and hence a very structured planning and procedure is required.

## INTRODUCTION

- Preparedness measures such as :
  - **training of role players**, including the community,
  - **effective communication**,
  - a **sound and well networked institutional structure**, including govt. organizations, academic and research institutes, the armed forces and the NGOs have greatly contributed to the disaster management of the country.
- The first step in this direction is to **identify the vulnerable communities with weaker economic conditions** which are periodically exposed to natural hazards.

From time immemorial, the Indian society has considered the **woman as the lifeline of the house** who looks

af Hence, it becomes mandatory that the **woman in the house is educated** in terms of **vulnerability risk management** in a disaster situation. children.



**WOMEN** are the worst sufferers



# OBJECTIVES

- To identify the **hazard profile of the community** and its neighbourhood
- Assessment of **disaster risk** from a probable earthquake and other natural calamities
- **Evaluation of the target responders of the community, their economical, social and intellectual capabilities to understand the complexities of disaster management.**
- Creation of **methodologies to educate the women, children and the disabled persons to react in a matured manner during an earthquake through awareness of individual and community resources.**
- **Use of mass media, radio service , TV networks, NGOs and social organisations of the locality** to educate the community to respond to such a disaster.

## THE STUDY AREA AND THE TARGET GROUP

- Parts of the state of **Assam and parts of the state of West Bengal, India** - group of deprived communities -varied educational and social setups.
- Surrounded by **economically disadvantaged lower sections , uneducated** – mainly scheduled castes and scheduled tribes

# A TYPICAL TEA GARDEN LABOURER HOUSEHOLD





## WOMEN WORKING IN THE TEA GARDEN

Major population =  
**tea garden labourer  
community** - the  
daily waged tea  
garden **pluckers**





## METHODOLOGY

- **Lower Section Of The Society Identified = Based On Dwellings**
- **Action Groups Chosen = Local Community Members**
- ***Village level administrative unit or Panchayat Officials* Were Also Made A Part Of The Awareness Generation Program**
- **Local People Got Together To Choose Places For Holding Meetings**

- **Door-to-door** campaigning
- **Intellectual level** of target group determined the mode of communication of awareness programme
- Distribution of **study material**
- **Audio visual aid**

# SELECTION OF PROPER MEANS OF AWARENESS GENERATION

## Preparation of study materials

Small leaflets with minute guidelines on pre and post earthquake disaster related activities

## Preparation of Audio Visual Aids

Local folklore adopted to include songs with lyrics describing earthquake risks and mitigation

Short documentaries and visual presentations displaying fury of earlier earthquake

# SELECTION OF PROPER MEANS OF AWARENESS GENERATION

## Organization of street plays

Use of mythological characters

## Involvement of the Media

Print media: Restricted to the higher literary class

Broadcast media: Radio and Television

# Preparation of Emergency Toolkits

**Food**

**First Aid  
Kits**

**Water**

**Tools**

**Clothing  
and  
bedding**

**Special  
items**

## METHODOLOGY

- **INFORMATION SPREAD** ABOUT SEVERITY OF EARTHQUAKE IN PLACES MOST FREQUENTED BY LOCALITES
- In all **governmental setups**
- **Religious institutions**
- **Community** centres
- **Places of entertainment** like the theatre halls and Local fairs
- **Illustrations** were used, along with **real-life disaster photographs**, to convey the facts about the disaster.

- **Arranging training programs**
- **Mock earthquake disaster situation**
- **Distribution of emergency tool kit**

# Educating the Tea Garden Folks



Opened a **Mother's Club** – consisting of the 20–25 semi- educated married, elderly women, with a Team Leader – who were trained – and they, in their turn, educated others







**CIVIL DEFENCE  
CAMPS**

**TWO DAYS WORKSHOP  
ON  
“DISASTER MANAGEMENT WITH PRACTICAL  
DEMONSTRATION AND TRAINING”**

At  
**GIRLS' POLYTECHNIC,**  
Bamunimaidan, Guwahati, Assam  
Pin – 781021  
Under **NEQP** Scheme

Of  
**ALL INDIA COUNCIL FOR TECHNICAL EDUCATION**  
(A Statutory Body of the Govt. of India)

Date:  
January 28-29, 2015

Venue:  
Girls' Polytechnic, Auditorium

Please contact the undersigned for Free Registration (Only 100 seats)  
**DR. PAPORI RANI BAROOAH**  
Department of Humanities



# EXPERTS FROM ASSAM STATE DISASTER MANAGEMENT AUTHORITY DELIVERING LECTURES



# PRACTICAL DEMONSTRATION BY THE CIVIL DEFENCE TEAM ON RESCUE AFTER A DISASTER



# STUDENTS TAKING TRAINING ON RESCUE AND FIRST AID AFTER A DISASTER





# OFFICERS FROM ASSAM STATE FIRE AND EMERGENCY SERVICES OFFERING TRAINING AT THE INSTITUTE COMPLEX







# ASSAM STATE FIRE AND EMERGENCY SERVICES DEMONSTRATING THE USE OF FIRE FIGHTING EQUIPMENTS



# PRACTIAL DEMONSTRATION ON THE FIRE FIGHTING EQUIPMENTS AND TECHNIQUES



# DEMONSTRATION OF VARIOUS FIRE FIGHTING EQUIPMENTS



# PRACTICAL TRAINING ON HANDLING TO CONTROL NORMAL HOUSEHOLD FIRE



# AT THE SUCCESSFUL COMPLETION OF THE TRAINING CERTIFICATES ISSUED BY THE PRINCIPAL



# PROBLEMS WITH THE TARGET GROUP

- **Lack of awareness and education about disasters**
- **Poverty**
- **Low intellectual ability**

- Beliefs on **age old traditions and rituals** – the **Supernatural**
- **Unsafe low cost dwellings** – high concentration in a **very small space**
- Natural **shyness** towards awareness programmes.

**VILLAGE WORSHIP AND CULTURAL CENTRE (NAMGHAR)**





# AWARENESS CAMPAIGN THROUGH THE VILLAGES



- **ONE PRIMARY SOURCE OF SPREAD OF INFORMATION –**

- **The Media** – influences people's mindset

- **Most economical and efficient way of spreading the information through**

- **News, entertainment, cinema, street plays, television, radio, newspapers and magazines , social functions (through popular songs with lyrics changed)**

- **Prime guideline in making the Disaster Mitigation Plan –**

- the level of **awareness** and **preparedness** of the people concerned

- Focus was at **minimizing damage** of all kinds during and after a disaster

# AWARENESS THROUGH NRITYA NATIKA (DANCE DRAMA)



# AWARENESS THROUGH BHAONA (LOCAL DRAMA)



# As Hanumaan, the Hindu God





# AWARENESS THROUGH BHAONA (LOCAL DRAMA)





# AWARENESS THROUGH BHAONA (LOCAL DRAMA)



# A TYPICAL ASSAM TYPE HOUSE



# STRUCTURAL REPLICA OF A TYPICAL ASSAM TYPE HOUSE PRESENTED IN A DRAMATIC WAY FOR AWARENESS



TIE BEAM

LINTEL BAND

PLINTH

# Arranging street plays



## CONCLUSIONS

- **Earthquake Preparedness = Prime Need Of The Hour -----Region Of High Vulnerability**
- **Lowest rung of society** should be given most importance - most vulnerable due to lack of education and awareness
- Society composed of different intellectual capabilities - so **varied tools** should be developed

- **Community education** best form of education for the lower rungs of the society.
- **Audio visual aids** and **street plays** = very effective and responsive amongst the lesser educated people of the society.
- **Emergency Disaster Supplies Kit (DSK)** a must for every household for immediate use in case of a disaster.

- **Printed materials and use of media** can increase the awareness level very quickly and efficiently and the viewers and the listeners can acquire the earthquake disaster related information in their households.
- A strong need is felt to **shift the paradigm from post disaster relief to preparedness and mitigation** when disaster strikes.

