

Community Based Disaster Management

6

AWARENESS ON RISK REDUCTION MEASURE



Dr. Antony Gnanamuthu
B.Tech., M.Co.op.M, M.P.M., Ph.d.,

Copyright © 2025, Dr. Antony Gnanamuthu B.Tech., M.Co.op.M, M.P.M.,
Ph.d.,
All rights reserved.

No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording or any information storage and retrieval system now known or to be invented, without permission in writing from the publisher, except by a reviewer who wishes to quote brief passages in connection with a review written for inclusion in a magazine, newspaper or broadcast.

DISCLAIMER:

The author in consultation with the field colleagues, communities, subject matter experts, exercise care in the compilation and drafting this publication, however the document and related Photos, graphics, could include technical accuracies or typographical errors, and the information may be appropriate for any countries around the world particularly to the disaster-prone areas.

In no event shall the author be liable for any damages whatsoever, whether in an action of contract, negligence or other tortious action, arising out of or in connection with the use of or reliance on any of the information in this publication.

CONTACT:

Enquires regarding the license and any use of this documents are welcome at: Dr.Antony Gnanamuthu, antony.gnanamuthu2012@gmail.com

Published by eBooks2go, Inc.
1827 Walden Office Square, Suite 260,
Schaumburg, IL 60173
info@ebooks2go.net
www.ebooks2go.net

eISBN: 978-1-5457-6338-4

Foreword



In recent decades, the frequency and intensity of both natural and anthropogenic disasters have significantly increased, posing critical threats to human life, infrastructure, and the environment. Climate change is significantly amplifying the frequency and severity of disasters, increasing the vulnerability to extreme weather events. The call for a greater focus on disaster preparedness and mitigation with focus on disaster preparedness, mitigation, response, and recovery across all sectors. Many regions, especially in developing countries, lack sufficient human resources, leading to gaps in preparedness and response.

Community participation and community ownership in disaster risk reduction is one of the key factors in reducing vulnerabilities of people and minimising the loss. Establishing the culture of disaster preparedness, by empowering the community to plan and bargain long term disaster risk reduction measures and to make them a self resilient community is critical. Community-Based Disaster Risk Management owes its success to an empowered community through training and orientation on the concept of disaster, early warning mechanisms for cyclones and floods, vulnerability and capacity mapping, risk reduction measures for disaster preparedness, community contingency planning, and response mechanisms.

A set of training manuals produced Dr.Antony Gnanamuthu, Disaster Management Expert, German Red Cross Indiabased onhis experience while working for the Odisha Disaster Mitigation Program (ODMP) as its Program Director during my period 2005 to 2009 is an excellent Resource in this regard. It was compiled under the Indo-German Program funded by KfW (Federal Republic of Germany) through German Red Cross and Republic of India through Indian Red Cross. These training manuals will be of great help to plan and organise Community Based Disaster Risk management activities like creation of community awareness, maintenance and management of multi-purpose cyclone shelter, capacity building of the people at individual and community level, Disaster Risk Reduction measures (DRR), community mobilisation, Shelter Community Chest (SCC), Insurance of the community and Community Contingency Plans (CCP).The manual consists of **ten modules** will be of great use to Trainer of Trainers (ToT) of the Community Based Disaster Risk Management.



Dr KURIAN JOSEPH
Emeritus Professor & Former Director
Centre for Climate Change and Disaster Management
Kalanjiyam Building, Anna University, Chennai-600 025

From the Author – Preface



'Establishing the culture of disaster preparedness 'is the goal of this training manual. This training manual practiced through the, Odisha Disaster Mitigation Programme (ODMP).

The objective of Disaster Risk Reduction can be achieved through series of activities like

1. Uniting people through Community Mobilizing and preparing them towards a culture of preparedness.
2. Maintenance and management of multi-purpose cyclone shelter
3. Capacity building of the people at individual and community level
4. Disaster Risk Reduction (DRR) measures, (relevant infrastructure intervention)
5. Shelter Community Chest (SCC)
6. Insurance for the community
7. Approval of Community Contingency Plan (CCP) in Palli Sabha and Gram Sabha

There has been an alarming increase in disaster occurrences costing human and economic losses throughout the world. This is due to some controlled and uncontrolled factors. One of the controlled factors is ever increasing vulnerabilities of the people to natural disasters and this training manual addresses the need for increased awareness.

The need is felt to reduce disaster risk by improving the capacities of the people ensuring the preparedness, mitigation and response planning process at various levels. The objective is to look at the entire cycle of disaster management in reducing risk and linking it to development planning process. Community participation and community ownership in disaster risk reduction is one of the key factors in reducing vulnerabilities of people and minimizing the loss. Thus, community-based disaster preparedness approach promotes community involvement by strengthening their capacities for vulnerability reduction through decentralized planning process. Disaster causes adverse socio-economic impact on the communities; hence there is a need to adopt multi-dimensional approach involving scientific, engineering, financial and social process to reduce vulnerability in multi-hazard zones.

The paradigm shift of relief, rehabilitation and reconstruction approach to preparedness in disaster management is the felt need of the age. In the light of the circumstances cited above, the ODMP approach to disaster management is the most appropriate as part of development process.

Preparedness activities in the shelter villages are the key to combat disasters in an effective way. This manual is meant to encourage people at the grass root level by establishing a culture of preparedness by generating awareness.

From the practical experience gained while working with the people at the community level, this manual is designed the ways of imparting social education among the shelter community, addressing topics such as formation of cyclone, Eye of cyclone, cyclone prone areas, stages of low pressure, strong wind, heavy rain, tidal waves and the effects of cyclone. It also deals with the formation and responsibilities of SDMCs (Shelter Disaster Management Committee), Task Force, First Aid, Psychological

Group, Traditional Birth Attendants, Search and Rescue Group, Water and Sanitation Group and Information Dissemination Group.

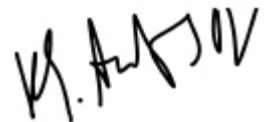
Further it also explains the Community Contingency Plan(CCP), Community Based Disaster Preparedness and Community Development, liaising with local administration.

This training manual is based on ODMP Field experience. It is mainly meant for the Trainer of Trainers (ToT) of the Community Based Disaster Risk Management. It helps in institutionalizing the capacity of the trainers and stake-holders of CBDRM and strengthens the process of social mobilization. It also helps in organizing the training programmes in a more structured manner. Above all, the manual tries to create the right atmosphere for smooth functioning of the community preparedness – before, during and after disaster.

I would take this opportunity to thank the ODMP team, Community and other stakeholders for their hard work and also their valuable inputs given in this exercise. I also thank my family members my parents, wife CA Sophie Antony, son Paul Antony, daughters Raizel Suresh Antony and Rachil Antony for their support in reviewing and editing this version (training manual).

I wish that the users of this manual would find it suitable for meeting their training needs. It will be a great pleasure for us if the trainers use this training manual to achieve the desired results. I hope this book will be of practical use to government officials, out-sourcing suppliers, academics, and even the members of the public who take interest in "Community Based Disaster Preparedness" and related domains. From a wider, philosophical perspective, I hope that this book will help the target communities (as first responders) to create a safer place to live in.

Suggestions for further improvements of the manual are welcome.



Dr. Antony Gnanamuthu
AMBASSADOR - INDIA

Inside

Abbreviations

How cyclone takes place and how it affects?

Community Based Disaster Preparedness and Orissa Disaster Mitigation Programme

Community based disaster preparedness and more

SDMC: How it is formed and what does it do?

A few points to remember

Community Based Disaster Preparedness and Community Based Development

ABBREVIATIONS

AAP	Annual Action Plan
AoP	Annual Plan of Operation
BGS	BGS Ingenieursozietat International, Hannover/ Germany, Consultant
BMTPC	Building Materials Technology Promotion Council
CATEFA	Counsellors Action Troup on First Aid
CATN	Counsellors Action Troup on Home Nursing
CBDRM	Community Based Disaster Risk Management
CCP	Community Contingency Plan
CD	Community Development
CMRF	Chief Minister's Relief Fund
DI	District Inspector
DM	Disaster Management
DMC	Disaster Management Coordinator
DMH	Disaster Mental Health
DM Unit	Disaster Management Unit
DP	Disaster Preparedness
DPC	Disaster Preparedness Committee
DPTC	Disaster Preparedness Training Center
DRCB	District Red Cross Branch
FA	First Aid
DFC	District Field Coordinator
FO	Field Officer
GoI	Govt. of India
GoO	Govt. of Orissa
GRC	German Red Cross
GRCD	German Red Cross Delegate
HMG	Household Micro Group

HQ	Headquarters
IFRC	International Federation of Red Cross & Red Crescent
INGO	International Non-Govt. Organisation
IRCS	Indian Red Cross Society
JE	Junior Engineer
JRCO	Junior Red Cross Officer
KfW	Kreditanstalt fur Wiederaufbau
KSA	Design Planning Services (P) Ltd., Ahmedabad / India
LFA	Logical Framework Approach
MoM	Minutes of Meeting
MoU	Memorandum of Understanding
NGO	Non-Government Organisation
NHQ	National Headquarters
NOC	No Objection Certificate
ODMP-II	Orissa Disaster Mitigation Programme- Phase II
OSB	Orissa State Branch
OSDMA	Orissa State Disaster Mitigation Authority
PC	Programme Co-ordinator
PFA	Psychological First Aid
PMC	Project Monitoring Committee
PM Cell	ProjectManagement Cell
PMRF	Prime Minister's Relief Fund
PoO	Plan of Operation
PRA	Participatory Rural Appraisal
RC/DB	Red Cross District Branch
RORs	Record of Rights
SCC	Shelter Community Chest
SDMC	Shelter and Disaster Management Committee
SHG	Self Help Group
SRC	Spanish Red Cross
TBA	Traditional Birth Attendant

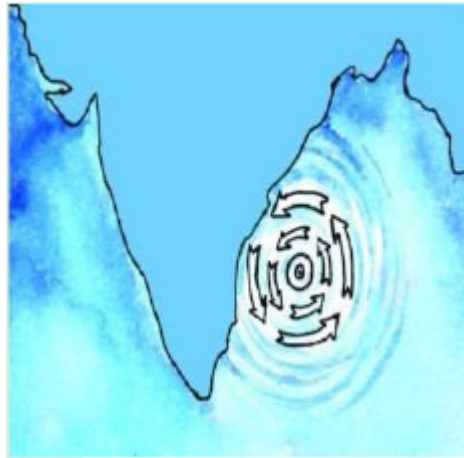
TC	Training Coordinator
TF	Task Force
VCA	Vulnerability and Capacity Assessment
YC	Youth Club
YRCO	Youth Red Cross Officer

How cyclone takes place and how it affects?

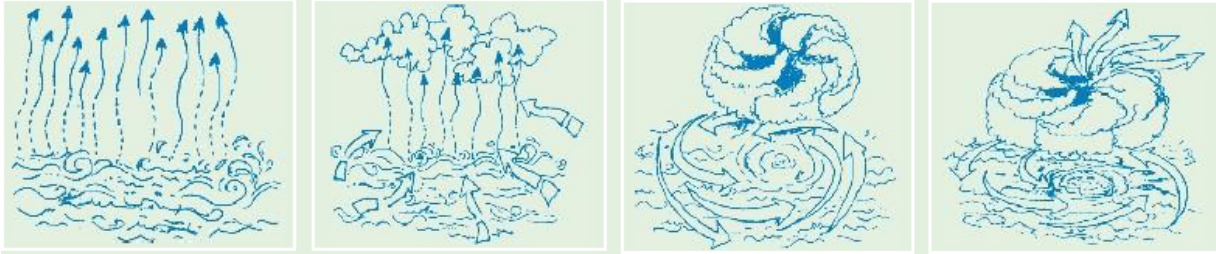
How cyclone takes place?

The word cyclone conjures up a frightening picture of ravaged houses, trees and lives and property. Especially in Orissa everybody is aware about different devastative faces of cyclone.

Cyclone is the furious effect of a low pressure of high intensity.



When the temperature of the surface water of the sea reaches 27 degree centigrade, it helps in creating low pressure which induces cyclone. The air of that place heats up and moves upwards creating a low-pressure area. Air pressure decreases at the centre. Cool air comes gushing into the centre of the low-pressure area at high speed and in circular motions from all directions. Enormous quantities of seawater in the shape of a funnel keep circling the centre of the low-pressure area. The diameter of a fully developed cyclone could be between 150 to 800 kms and the height between 10 to 17 kms. When such a situation is accompanied by wind speeds of 60 km or more, it is called a cyclone.



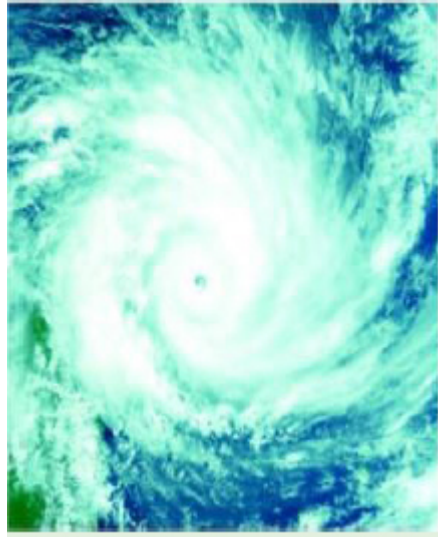
"My husband was swept away by the strong current right in front of my eyes. I somehow managed to survive by hanging on to the roof of our thatched house for dear life. After a while, I was taken to the cyclone shelter by the Search & Rescue team. The shelter itself was surrounded by swirling water on all sides. The Rescue Team hung a rope out. I managed to reach the shelter by holding the rope tightly. I was pleasantly surprised to find my husband had already reached there. Suddenly, I started having labour pain. I was shifted to the office room where I gave birth to a son. The people present fondly named him "Red Cross". We would never have survived had it not been for the shelter. Even after all these years, I am reminded of that fateful night whenever I come to the shelter."

Reminiscences of a woman survivor of the 1999 Super Cyclone

Eye of the cyclone

The centre of the low-pressure area is called the "Eye of the Cyclone". The centre is a lot hotter, but relatively calm. The eye of the cyclone can stretch from 20 km up to 200 km. The cyclone is at its most powerful when it touches land. After the first thud, things cool off for a while. That is when the 'eye' of the storm passes. Everybody thinks the cyclone is over. But then comes the second and infinitely more powerful gush.

The radars of the Meteorology capture an impending cyclone full 48 hours before it actually touches land. Even then, it is not always possible to gather and disseminate correct information about the cyclone since the cyclone may change course anytime. But it is important to listen to the warning sounded 24 hours before a cyclone. If foolproof preventive measures are taken in these 24 hours, life and property can be saved.



Cyclone prone

The states along the Bay of Bengal - Orissa, West Bengal, Tamil Nadu and Andhra Pradesh - and Gujarat on the Indian Ocean coast are the cyclone prone states in India. The cyclone prone period in the country is April-June and October- November. The speed of wind keeps changing at various stages of the cyclone. Generally, when wind speed reaches 60 km per hour, it is called a cyclone.



Damage causing forces:

The damage wrought by cyclones is caused mainly by three factors.

Wind speed had reached more than 250 km during the 1999 Super Cyclone
The damage wrought by cyclones is caused mainly by three factors.

Stages of low pressure/cyclone	Windspeed
Low pressure	Less than 30 km
Serious low pressure	31-65 km
Cyclone	66-90 km
Intense Cyclone	90-120 km
Severe cyclone	121-220 km
Super Cyclone	Above 220 km

Strong wind:

Cyclone is always accompanied by strong wind. At times, wind speed can go beyond 250-km per hour as it happened during the 1999 Super Cyclone. Wind at such speed can raze entire villages to the ground. Even poles and trees cannot resist such wind speed.

Heavy rains:

It can rain up to 250 mm in a single day during cyclones. There is always the danger of floods being caused by such heavy rains. A vast area was hit by floods during the Super Cyclone.



You've Just Finished your Free Sample

Enjoyed the preview?

Buy: <http://www.ebooks2go.com>