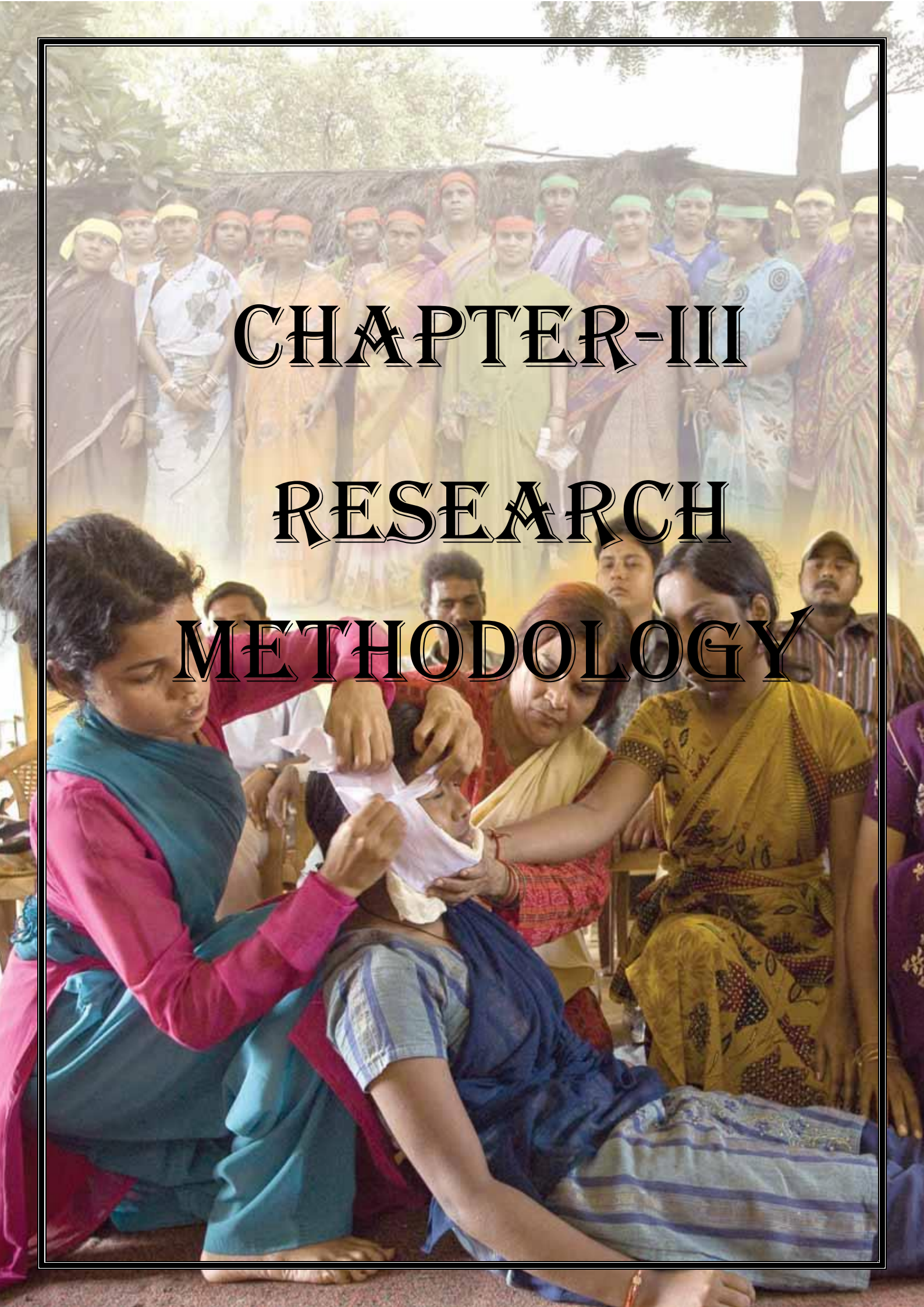


CHAPTER-III

RESEARCH METHODOLOGY

CHAPTER - III

RESEARCH METHODOLOGY

"KNOWLEDGE AND PREPAREDNESS OF VILLAGE LEVEL DISASTER MANAGEMENT COMMITTEE (VDMC) MEMBERS REGARDING COMMUNITY BASED DISASTER PREPAREDNESS FOR FLOOD"

A study on Knowledge and Preparedness of 451 Village Level Disaster Management Committee members from 41 vulnerable villages of 6 talukas of Anand District regarding Community Based Disaster Preparedness (CBDP) for Flood.

SIGNIFICANCE OF THE STUDY

Disasters such as earthquakes, tsunamis, floods, tornados and hurricanes can happen with little or no warning signs and the damages on human life and property can be devastating.

In these current times we are living in when disasters are becoming more and more frequent all over the world so, everyone needs to be prepared and equipped in case a disaster should strike in their home or town - so they may be able to help themselves, their families and neighbors if such an event should happen

The Indian subcontinent is among the world's most disaster-prone areas. As per the current seismic zone map of the country, over 59% of India's land area is under threat of moderate to severe seismic hazard. Out of the total geographical area of 329 million hectares (mha), more than 40 mha is flood prone. On and average every year, 75 lakh hectares of land is affected, 1600 lives are lost and the damage caused to crops, houses and public utilities is Rs. 1805 crores due to flood.

Flood is the most common of all environmental hazards. The reason lies in the wide spread geographical distribution of the river valleys and low lying coasts together with the long standing attractions for human settlement. The nature and scale of the flood risk varies greatly, even in the same region. In Asia, river floods damage about

4 million hector of land and crops and affect the life of over 17 million people every year.

Main problems in India with respect to floods are inundation, drainage congestion due to urbanization and bank erosion. The problems depend on the river system, topography of the place and flow phenomenon. Being a vast country, the flood problems in India may be visualized on regional basis.

The Disaster Management Committee which draws up the plans consists of elected representatives at the village level, local authorities; Government functionaries including doctors/paramedics of primary health centers located in the village, primary school teachers etc. The plan encompasses prevention, mitigation and preparedness measures. The Disaster Management Teams at the village level consist of members of youth organizations like Nehru Yuvak Kendra and other non- governmental organizations as well as able bodied volunteers from the village. The teams are provided basic training in evacuation, search and rescue, first aid trauma counseling etc. The Disaster Management Committee reviews the disaster management plan at least once in a year. It also generates awareness among the people in the village about dos' and don'ts for specific hazards depending on the vulnerability of the village. A large number of village level Disaster Management Committees and Disaster Management Teams have already been constituted.

Disaster preparedness is a state of being ready to react promptly and effectively in the event of emergency. Preparedness is key component in Disaster Management. It requires systematic and comprehensive planning. Community as an institution in itself is emerging as the most powerful entity in the entire mechanism of disaster management. In the event of actual disaster, the community well aware, damages will be reduced so the emphasis presently is to reach out the community at the grass root levels and hence community based disaster preparedness are being advocated.

There is greater emphasis on Social work intervention before disaster, during disasters and after disasters. Before Disasters social workers have involved in preparedness work and they can arrange awareness programmes for the vulnerable community. During disasters they can be involved in search, rescue, relief and evacuation work. After disasters they have involved in rehabilitation work like physical rehabilitation,

psychological rehabilitation and social rehabilitation. Very little researches have been conducted in this area.

Eliciting People Participation is important in any programme for it not only ensures success of the programme but also empowers community to help themselves when in need. So this study focuses on knowledge and preparedness of VDMC Members regarding community based disaster preparedness for flood.

MAIN OBJECTIVES

1) To check knowledge of VDMC members regarding Community based Disaster Preparedness for flood.

2) To know about Preparedness for Flood done by VDMC members as a part of CBDP for flood.

SUB OBJECTIVES

1) To know perception of VDMC members regarding different kinds of **trainings** provided for COMMUNITY BASED DISASTER PREPAREDNESS.
2) To explore the knowledge among VDMC members respondents regarding **search, rescue and evacuation**
3) To know participation level of VDMC members in **Community Based Disaster Preparedness work**
4) To study various **non-structured measures** used for disaster preparedness.

HYPOTHESIS

(1) There is significant association between Age and Knowledge regarding flood.
(2) There is significant association between Age and Preparedness for Flood.
(3) There is significant association between Occupation and Knowledge regarding flood.
(4) There is significant association between Occupation and Preparedness for flood by VDMC Members.

(5) There is significant association between Education qualification and Knowledge regarding flood.

(6) There is significant association between Education qualification and Preparedness for flood by VDMC Members.

RESEARCH DESIGN

The study attempts to describe all aspects of knowledge and Preparedness of VDMC for flood, structured and non-structured measures using for preparedness, Village Level Disaster Management Plan (VDMP), search, rescue and evacuation and various trainings for preparedness etc. And also explore the knowledge and Preparedness of VDMC members for CBDP for flood. Therefore research design is Exploratory cum Descriptive**.**

UNIVERSE

The universe of the study includes members of Village Level Disaster Management Committee of all Flood affected villages from six talukas – Anklav, Umreth, Borsad, Anand, Tarapur and Khambhat of Anand District.

SAMPLE & SAMPLING PROCEDURE

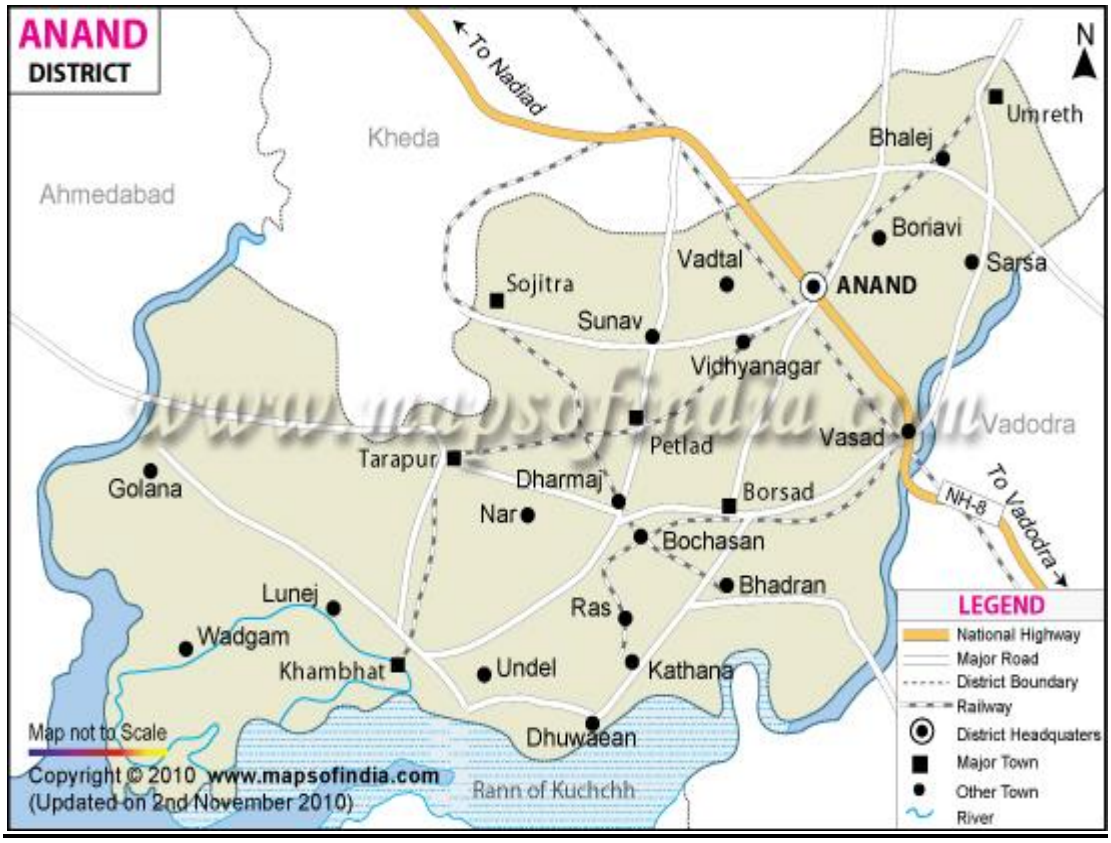
There are 63 rivers in Gujarat from them the most flooded rivers are Mahi and Sabarmati as per the evidence given by GSDMA (Gujarat State Disaster Management Authority). Mahi flows from five districts like Godhra, Dahod, Anand, Vadodara and Kheda so as a sample 6 Talukas (Anand, Khambhat, Anklav, Umreth, Borsad and Tarapur) have been taken from Anand district based on severity of the flood. From 6 Talukas, 41 villages (Khanpur, Kherda, Ankalwadi, Rajupura, Vasad, Vaherakhadi of Anand Taluka, Pratappura, Khorvad of Umreth Taluka, Chamara, Bamangam, Umeta, Khadol, Moti Sankhyad, Kahanvadi, Amrol, Asarma, Bhanpura, Gambhira, Bhetasi vanta, Nava khal of Anklav taluka, Kothiyakhad, Ganjana, Sarol, Kankapura, Nani Sherdi, Valvod, Dehvan, Badalpur of Borsad Taluka, Golana and Pandad of Khambhat taluka, Fatepura, Dugari, Chitarwada, Pachegam, Kasbara, Milrampura, Jafargunj, Rinza, Galiyana, Kanpur, Nabhoi of Tarapur Taluka of Anand District situated at Mahi River Belt and Sabarmati river belt)have been taken as sample. 451

means all VDMC (Village level Disaster Management Committee) members from 41 vulnerable villages have been taken as sample.

Thus the respondents are selected by adopting Multi-Stage, Purposive and Census Inquiry sampling methods.

PROFILE OF ANAND DISTRICT

ANAND DISTRICT MAP:



- Date of Formation: Anand District was carved out of Kheda District on 2nd October 1997.
- Anand is Located near Gulf of Cambay in the southern part of Gujarat.
- The district has 8 taluka of which the major ones are Anand (district headquarters), Umreth, Anklav, Borsad and Khambhat.

Geographical Location	**22.07 to North (Latitude)** **72.15 to 73.18 East (Longitude)**
Average rainfall	777 mm
Rivers	Sabarmati, Mahisagar, Shedhi
Area	2,951 square km.
District Headquarters	Anand
Taluka	8
Population	1,856,782 (As per 2001 census)
Population Density	711 Person per square Km.
Sex Ratio	910 Females per 1000 male
Literacy rate	85.79% Male: 93.23 % , Female: 77.76 %
Language	Gujarati, Hindi, English
Seismic Zone	Zone III

INFORMATION OF VILLAGES OF ANAND TALUKA

NAME OF VILLAGE	TOTAL POPULATION	EDUCTION RATE	BPL FAMILY	PRIMARY SCHOOL	PRIMARY HEALTH CENTER
KHANPUR	3504	68%	73	Yes	No
KHERDA	2478	78%	198	Yes	No
ANKALVADI	3046	71%	166	Yes	No
RAJUPURA	4165	76%	294	Yes	No
VASAD	14384	84%	865	Yes	Yes
VAHERA-KHADI	8282	66%	517	Yes	Yes

UMRETH TALUKA

NAME OF VILLAGE	TOTAL POPULATION	EDUCTION RATE	BPL FAMILY	PRIMARY SCHOOL	PRIMARY HEALTH CENTER
PRATAPPURA	4333	67%	381	YES	No
KHORVAD	3905	69%	488	Yes	Yes

ANKLAV TALUKA

NAME OF VILLAGE	TOTAL POPULATION	EDUCTION RATE	BPL FAMILY	PRIMARY SCHOOL	PRIMARY HEALTH CENTER
CHAMARA	5505	67%	803	Yes	No
BAMANGAM	8201	70%	1233	Yes	YES
UMETA	3689	63%	571	Yes	No
KHADOL	2010	64%	119	Yes	No
MOTI SANKHYAD	3181	67%	463	Yes	No
KAHANVADI	6394	66%	1110	Yes	No
AMROL	5268	68%	881	Yes	No
ASARMA	3678	76%	443	Yes	No
BHANPURA	1512	72%	114	Yes	No
GAMBHIRA	7939	74%	878	Yes	No
BHETASI VANTA	5304	66%	588	Yes	No
NAVAKHAL	5368	66%	657	Yes	No

BORSAD TALUKA

NAME OF VILLAGE	TOTAL POPULATION	EDUCTION RATE	BPL FAMILY	PRIMARY SCHOOL	PRIMARY HEALTH CENTER
KOTHIYAKHAD	2771	76%	357	Yes	No
GANJANA	2773	82%	426	Yes	No
SAROL	10808	67%	1421	Yes	No
KANKAPURA	10104	68%	1843	Yes	No
NANISERDI	2014	71%	269	Yes	No
VALVOD	7640	63%	1005	Yes	No
DAHEVAN	10880	67%	1525	Yes	No
BADALPUR	5396	73%	1343	Yes	Yes

KHAMBHAT TALUKA

NAME OF VILLAGE	TOTAL POPULATION	EDUCTION RATE	BPL FAMILY	PRIMARY SCHOOL	PRIMARY HEALTH CENTER
GOLANA	**2773**	**82%**	**426**	**Yes**	**No**
PANDAD	**2894**	**66%**	**110**	**Yes**	**No**

TARAPUR TALUKA

NAME OF VILLAGES	ANGANWADI HAVE OWN BUILDING	EMPLOYMENT UNDER MGNREGA	MARGINAL LABOUR	FARMERS MORE THAN 10 Hector)
FATEPURA	1	200	500	0
DUGARI	2	0	612	98
CHITERVADA	1	110	420	0
PACHEGAM	2	163	201	155
KASBARA	1	100	265	40
MILRAMPURA	2	58	315	30
JAFERGANJ	1	0	515	5
RINZA	3	400	424	8
GALIYANA	2	0	589	125
KANPUR	1	100	478	0
NABHOI	1	0	289	0

TOOL OF DATA COLLECTION

QUANTITATIVE METHOD

Interview method

1) Primary Source

- Interview schedule. An interview schedule of questions was prepared by referring the available literature from the field of Disaster Management. The schedule includes the questions related to Knowledge and Preparedness about Village Level Disaster Preparedness.
- Observation

2) Secondary Source

- Available literature of GSDMA like Village Level Disaster Mgt plans. (41 vulnerable villages from 6 talukas of Anand district situated at Mahi and Sabarmati river belts.

QUALITATIVE METHOD

Focused Group Discussion with VDMC Members of Khanpur village from Anand Taluka and Rinza village from Tarapur Taluka of Anand District.

VARIABLES

There are mainly two variable which are considered in the study.

Independent Variables:

In this study the independent variables are personal information of the respondents such as, Age, Education qualification, Economic background, marital status, employment etc**.**

Dependent Variables:

In this study dependent variables include various aspects related to knowledge, Preparedness, various trainings, awareness generation programmes and role of members at the time of Flood etc.

Treatment of Data:

Considering the nature of the data, processing tabulation of data was Software packanotge. Focused Group Discussion (FGD) have been recorded and summary of the FGD has been prepared.

Limitation of the Study

Study was time bound as all districts nearer to Mahi and Sabarmati river bank like Dahod, Godhra, Vadodara and Kheda were not considered as a sample districts.

OPERATIONAL DEFINITIONS:

Knowledge:- Knowledge refers to what one knows through training and understanding.

Disaster: - Disaster is the alteration in people, material resources and environment caused by a natural phenomenon or by human activities, that exceeds the local responses and capacity of the affected community.

Disaster Management: - Disaster management is a body of policy and administrative decision and operational activities which pertaining to the various stages of a disaster at all levels.

Flood:- Flood is a natural disaster caused by too much rain or water in a particular location, which is caused by many different sets of condition like prolonged rainfall, a storm, rapid melting of large amount of snow or swelling rivers from excess precipitation, upstream and cause wide spread damage to the downstream areas and the bursting of manmade dams.

Disaster Preparedness: - Disaster preparedness as “a series of measures designed to organize and facilitate timely and effective rescue, relief and rehabilitation on

operations in case of disaster. Measures of preparedness include among others, setting up disaster relief machinery, formulation of emergency relief plans, training of specific groups to undertake rescue and relief, stock piling supplies and earmarking funds for relief operations."

Community Based Disaster Preparedness: - CBDP means Preparedness at local grass root level and increased resilience against disaster at local community.

VDMC (Village Level Disaster Management Committee):- The Disaster Management Committee which draws up the plans consists of elected representatives at the village level, local authorities; Government functionaries including doctors/paramedics of primary health centers located in the village, primary school teachers etc.

VULNERABILITY

Human vulnerability is the relative lack of capacity of a person or community to anticipate, cope with, resist, and recover from the impact of a hazard. Structural or physical vulnerability is the extent to which a structure or service is likely to be damaged or disrupted by a hazard event. Community vulnerability exists when the elements at risk are in the path or area of the hazard and susceptible to damage by it.

OUTLINE OF RESEARCH REPORT

Chapter - I

Introduction:

The first chapter contains the introduction regarding the topic of the study and information pertaining to Community base disaster preparedness for flood.

Chapter - II

Research Methodology:

It contains the title, significance of the study, objectives, research design, universe, sample, sampling procedure, tool of data collection, limitations of the study and operational definitions.

Chapter - III

Review of Literature:

This chapter deals with the major findings and conclusion derived by scholars with an aim of supporting the present work or signifying it as an explorative study.

Chapter - IV

Data Analysis and Interpretation:

- Data will be analyzed by the help of uni- variate tables.
- Graphs will be used wherever necessary

Chapter - V

Findings, Conclusion and Suggestions:

The fifth chapter contains the findings of the study and the conclusion derived from the findings. A section is also devoted to a few suggestions.