GE-International Journal of Management Research
Vol. 4, Issue 9, September 2016 IF- 4.88 ISSN: (2321-1709)
© Associated Asia Research Foundation (AARF)
Website: www.aarf.asia Email : editor@aarf.asia , editoraarf@gmail.com

DISASTER MANAGEMENT WITH REGARDS TO AFFECTED AREAS IN CHENNAI FLOOD -2015

[1]Mrs. B.Jeeva Rekha, [2]Dr.K.Priya
[1]M.Com., M.Phil.,PGDCA., e-com., NET., (Ph.D)., Assistant Professor of Commerce CA Vivekanandha College of Arts and Sciences for Women(Autonomous), Tiruchengode, Tamil Nadu, India .
[2]M.Com., M.Phil., MBA., SET.,Ph.D HOD & Assistant Professor of Commerce CA Vivekanandha College of Arts and Sciences for Women(Autonomous), Tiruchengode, Tamil Nadu, India .

Co - Author
[3]Ms. S. Sugacini ,
[3]M.Com (CA).,(M.Phil)., Research scholar, Vivekanandha college of arts and sciences for women(autonomous), Tiruchengode. Tamil Nadu, India.

INTRODUCTION

Floods are extreme events or actions of nature, in which the flow of water can't be contained within the banks of rivers and or retention areas. It occur most commonly when water from heavy rainfall, from melting ice and snow, or from a combination of these exceeds the carrying capacity, of the river system, lake, or the like into which it runs. Usually the combined flow of several water–swollen tributaries causes flooding along a river bank or shoreline. Accounts of floods that destroyed nearly all like are found in the mythology of many peoples. Not all floods are destructive, however the annual flood waters of the Nile and some other larger rivers historically deposited retile soil along the surrounding flood pain which is used extensively for agriculture. The damming of the Nile and other rivers in modern times, however, often has greatly reduced the deposition.

INTERNATIONAL DECADE FOR NATURAL DISASTER REDUCTION

India is committed to the goals and objectives of the international decade for natural disaster Reduction. A special plan programmer is now implemented for development of human resources, encouraging research and documentation and enhancing community awareness in the field of natural disasters. A strong delegation led by Agriculture Minister participated in the World Conference on Natural Disaster Reduction held in Japan in 1994. Every year world Disaster Reduction Day (falls on 2nd Wednesday of October) is observed in a befitting manner.

A large number of institutes already engaged in the activities related to disaster reduction activities. Some of these are:-

- Department of Earthquake Engineering, University of Rookie,
- Building Material Technology Promotion Council, New Delhi.
- Central Building Research Institute, Roorkee.
- National Civil Defense College, Nagpur.
- National Institute of Rural Development, Hyderabad.
- Indian Institutes of Technology, Delhi, Kanpur, Mumbai.
- Structural Engineering Research Centers, Hyderabad.
- Central Road Research Institute, New Delhi.
- Council for Scientific and Industrial Research, New Delhi.
- Anna University, Chennai.
- Indra Gandhi National Open University, New Delhi.

TYPES OF FLOOD

Flooding can happen can anywhere at any time and can be caused by more than just rain.

➢ REVERIE FLOODING

In reverie flooding, relatively high water levels over top the natural or artificial banks of a stream or river. The nature of reverie flooding can vary significantly in terms of cause, timing and depth between different locations. Coastal rivers with short, sleep head waters often have floods that rise and recede quickly. Inland floods with low gradients have floods that move slowly down the river, sometimes lasting for several months.

- **FLASH FLOODING**

It occurs when soil absorption, runoff occurs when soil absorption; run off or drainage can't adequately disperse intense rainfall , and is usually caused by slow- moving thunderstorms flash floods are generally defined as developing in 6 hours or less from rainfall to onset of flooding.

- **DAM FAILURE**

Although dam failure is rare, their effects can be significant. In Victoria dam safety is monitored and warning arrangements are in place to warn downstream flooding can involve potentially swift flowing water and high amounts of debars.

- **STROM SURGE**

It occurs when sea levels are elevated above the usual tidal limit due to the action of intense low pressure systems over the open ocean. The low pressure causes sea level to rise as there is less air pressuring down on the sea. Combined with gale force on shore .winds, this can lead to flooding of low-lying coastal land.

STATEMENT OF THE PROBLEM

Floods are extreme events or actions of nature, in which the flow of water can't be contained within the banks of rivers and or retention areas. As a result it outflows into areas with human settlements infrastructure into areas with human settlements, infrasture facilities, and economic activities. Floods become a disaster when such areas become exposed to the hazard without, adequate warning and or without means of taking defensive actions and the community suffer loss of life, assets, livLihood, and environmental securities. The river or streams that provide sustenance to the surrounding population also renders these populations vulnerable to disasters by periodic flooding. Floods can arises from abnormally heavy precipitations, dam failures, rapid snow melts, river blockages. In India, Flooding has spoiled many places including Tamil Nadu. Mainly areas such as Chennai, Rameshwaram, Kanyakumari, kadalore were prone to flooding during the past years. Hence, to find the reasons and problems of flood is an important for any researcher. Herewith the researcher has gathered data relating to the Chennai flood 2015.

SCOPE OF THE STUDY

India is one of the most disaster prone countries in the world. Over 65% of the land area vulnerable to the earthquake, 70% of land under cultivation prone to drought, 5% of the land (40 million hectares) to floods, 8% of the land (8,000 km coastline) to cyclones. The major disasters occur every 2-3 years. 50 million people affected annually one million houses damaged along with human, social and other losses during 1885-2003. The annual average damage due to natural disasters has been estimated at 70 million US dollars. Chennai has been recorded as one of the city which is prone to disaster due flood during 2004 and 2015. Hence, the researcher has chosen the area of study towards Chennai flood 2015. In this study, we can find the depthless, reasons, consequences and preventive measures to be taken and rescue methods for the flooding.

OBJECTIVES OF THE STUDY

The main objectives of the study were;

- To find the demographical and economical status of flood affected people in Chennai.
- To assess the damages occurred for durable and non-durable goods of the sample public.
- To assess the loss towards properties and outflows of flood.
- To state the rescue and preventive methods during flood.

HYPOTHESIS OF THE STUDY

- $H_{0:}$ There is no significant relationship between demographical and economical status of the respondents.
- H_1: There is significant relationship between demographical and economical status of the respondents.

RESEARCH METHODOLOGY

The present study has been an empirical one. The field survey method and personal interview technique have been adopted for the collection of data from the sample respondents of flood area.

SAMPLING DESIGN

If the population from which the sample is to be drawn does not constitute a homogenous group, then stratified sampling techniques is applied so as to obtain a representative sample. In this technique, the population is stratified into number of overlapping sub population or strata and sample items are selected from each stratum. If the item selected from each stratum is based on simple random sampling is known as stratified sampling. The stratified sampling results in a more reliable and detailed information. The researcher uses convenience sampling for selection of items from each stratum. Total affected areas are 32. For the purpose of the study, 14 areas were selected as most affected areas. From the total affected population a sample of 200 respondents were selected for the study.

PRIMARY DATA

The primary data of the study is to know about the Disaster management with regards to flood in Chennai city. The required data were collected based on the structured questionnaire by conducting interview schedule. In this regard, the targeted groups of respondents were given with a separate interview schedule personally and necessary terms were explained clearly to fill up the questionnaire.

FLOOD RELIEF BY TAMILNADU GOVERNMENT

Tamil Nadu Chief Minister J Jayalalithaa has requested Prime Minister Narendra Modi to release special package for building houses for the flood-affected. She has also requested PM to ask Ministry of Housing and Urban Poverty Alleviation and Ministry of Rural Development to accord it urgency and sanction expeditiously. She has requested in a letter a special scheme of constructing 50,000 houses for the urban poor who are to be resettled from water courses and water bodies at a total cost of Rs 5,000 crore, as the existing schemes are not viable. "Hence, it is very essential that a special programmed is approved for the construction of houses at alternative locations for the 50,000 flood affected families residing along the Chennai water courses, with substantially enhanced Government of India contribution,".

In Chennai city, about 50,000 families were already been surveyed and identified living along the banks of the Adyar and Cooum Rivers and the Buckingham Canal. Out of this, the Tamil Nadu government would be able to accommodate 25,000 families in tenements already constructed and under construction by the Tamil Nadu Slum Clearance Board and the resettlement of these people is expected to commence within two weeks and to be completed in phases within a year. For the remaining 25,000 families, particularly those residing along the Buckingham Canal and for a further 25,000 families residing in the vicinity of other water courses and water bodies in Chennai city and its suburban areas, affected in the recent flooding, the state government has prepared a project to construct 50,000 multi-storied tenements on various pieces of land that are available with the state. .

DATA ANALYSIS AND INTERPRETATION

TABLE No.1.2

TYPE OF HOUSE

Gender Vs Type of house for living	Single house	Flat	Quartos	Multiple house	Total
Male	50 (40)	15 (30)	12 (11)	23 (19)	100
Female	30 (40)	45 (30)	10 (11)	15 (19)	100
Total	**80**	**60**	**22**	**38**	**200**

Source : primary data

Factor	Calculated x^2 Value	Table value	Significance level	Remarks
Gender Vs Type of house for living	-2.003	7.81	5%	H_1 accepted

The table states that the calculated value (-2.003) is lesser than the table value. So, it is concluded that alternative hypothesis H_1 is accepted and null hypothesis H_0 is rejected. Therefore there is significant relationship between gender and type of house for living of the respondents.

TABLE No.4.31

RELIEF FUND BY ORGANIZATIONS

Relief fund Vs Supporting organizations	State govt.,	Central govt.,	NGO's	Other voluntaries	Total
Yes	15 (24.9)	20 (16.65)	40 (36.07)	36 (33.3)	111
No	30 (20.02)	10 (13.35)	25 (28.92)	24 (26.7)	89
Total	45	30	65	60	200

Factor	Calculated x^2 Value	Table value	Significance level	Remarks
Relief fund Vs supporting organizations	0.991	7.81	5%	H_1 accepted

The table above states that the calculated value (0.991) is lesser than the table value. So we concluded that alternative hypothesis H_1 is accepted and null hypothesis H_0 is rejected.

Therefore there is significant relationship between relief fund receiving details and supporting organizations during flood time of the respondents.

LIMITATIONS OF THE STUDY

- The study is focused only on the most flood affected areas in Chennai district.
- The respondents of the study belong to the disaster management with Chennai flood.
- The sample public was not mentally and physically prepared for answering.

.

FINDINGS

- 131(65.5%) of the respondents earns below Rs.20, 000, 35(17.5 %) of the respondents earns above Rs.20, 000 – Rs.30, 000, 12(6%) of the respondents earns above Rs.60, 000, 10(5%) of the respondents earns above Rs.50, 000 – Rs.60, 000 and the remaining7 (3.5 %) of the respondents earns above Rs.30, 000 – Rs. 40,000.

- 62.5% of the respondents two wheelers were damaged, 17.5% of the respondents four wheelers were damaged, 12.5% of the respondent six wheelers were damaged and 7.5% of the respondents other machineries were damaged.

SUGGESTIONS

- Dams should be properly constructed and properly maintained with specialist for dam constructing work. Government must control land deviation for the purpose of constructing buildings. Water reservoirs must be cleaned and well constructed.
- Government should conduct various awareness programmes regarding natural hazards such as flood, earthquakes, heavy rain and any other disasters.
- The Tamil Nadu government has to check whether forecasting regards to flood and any other natural disaster signals. The government must provide warnings to peoples and rescue measures at correct period.
- Many private organizations or NGO's, hospitals and government organizations should come forward to help the affected people. The government should release enough funds from the government bills.

CONCLUSION

It is impossible to anticipated natural disasters such as flash floods. However, disaster preparedness plans and protocols in the civil administration and public health systems could be very helpful in rescue and relief and in reducing causalities and adverse impact on the human life and socio economic conditions. However, health systems in India lack such disasters preparedness plans and training.

REFERENCES

1. Topper, E. F. (2008). How safe is your library? *New Library World, 109*(3/4), 182-184. Doi: 10.1108/03074800810857630

2. Topping, D., & Evans, G. (2005). Public libraries in Belfast and the troubles, 1969-1994. *Library Management, 26* (6/7), 373-385. Doi: 10.1108/01435120410609789.

3. www.livescience .com/23919-flood-facts

4.www.infoplease.com>encyclopedia>earth & the environment>geology & ceanography>geology & oceanography.

5. www.quora.com

6. www.environment.nationalgeography.com