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# **Evolving models of disaster management: A Community based participatory study based on the psycho-social impact of cyclone (Gaja) affected women in Thiruvarur District, South India, Tamil Nadu**

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**Abstract**--The impact of a disaster is experienced differently by different sections of the populations based on various parameters including their social, economic and demographic backgrounds. Women play a crucial role in the rural areas in disaster management. The study aims at understanding the psycho-social impact and the reality responses of women for the mitigation of the disaster. Social vulnerability factors play a significant role on the psycho social impact of cyclones among rural women. Community-Based Participatory Research through Social Mapping Functional Mapping, Case Studies and Focused Group discussions with also a Self-prepared interview schedule was employed to the present study to assess the psycho social impact of disasters (cyclone) among women. Thus, the present study has provided an understanding the psycho-social impact of the sudden disaster and the problems faced by the women in rural areas and also develop insight on the reality perspectives of disaster management among rural women and to provide suggestions for the same. Gaja hit very severely in the delta regions of Thiruvarur research areas constitute the five villages of Thiruthuraipoondi Block of Thiruvarur district in Tamil Nadu severely hit by Gaja cyclone. Through this study the researcher advocates two models of disaster management, namely Strength -based Model of Disaster Management and Women Centric Model of Disaster Management for effective management of disasters in future. The strength Based Model of Disaster Management is rooted on the DFID Model of livelihood promotion while the women centric model is based on the self-help

group-based model in villages. The steps are clearly discussed in the paper.

**Keywords**---Disaster Management, Women, DFID model, Strength Based Model, Rural Women.

## **Introduction**

Disasters leave a strong mark on the lives of the rural poor. The impact of a disaster is experienced differently based on various parameters including their social, economic and demographic backgrounds. Gender is no exclusion for the same. The way in which the disaster is experienced by women differs from the way it is experienced by men. Women play a crucial role in the rural areas in disaster management which leaves a strong psycho social impact on them. The problems faced by these rural women are multifold and has a direct influence on their livelihoods in the longer run. According to UNIDSR (2007), there is a little quantitative evidence available on the long-term impact of disasters on the lives and livelihoods of the people and it is observed that there is a lack of large-scale qualitative studies to understand the measure the gendered impact of disasters especially among the vulnerable sections.

In Tamil Nadu, the cyclone GAJA has severely hit the delta districts of Thanjavur, Thiruvarur and Nagapattinam during November 2018. The Socio-economic dynamics of the people in the study area are dependent on agriculture and allied activities for their main livelihood. Their livelihoods are already challenged by vast disparities in the monsoons and other climatic reasons. The present study aims at understanding the psycho-social impact of the sudden disaster and the problems faced by the women in self -help groups. It is very common to observe the functioning of at least 2-3 self- help groups in every village and these groups are run by non-governmental organizations, governmental organizations and individuals.

The study attempts to understand the reality responses of women during the times of disasters and the preventive and intervention methods adopted by these groups. In terms of disaster management community groups play a significant role in dealing with the impact. Women self- help groups are dynamic community groups in this area and hence the study will be helpful to reflect on the role of self- help groups in disasters and evolving disaster management methods in rural areas.

## **Review of Literature**

Yan Chang et al., (2012) have discussed the resource issue during the reconstruction of the post-disaster environs. The study included clarifying the complexity of the resources available to international workers in the post-disaster recovery by identifying and comparing the impact on access to resources following natural disasters in Indonesia and China respectively. The weak issues that international workers may also face include union power, market power, transport power, and governance and the rule of law.

Raja Swamy (2017) explored the inequality and social challenges, policy changes to overcome the social inequality among fishers community of South India. Disaster risk anthropologists share a widely accepted understanding that the effects of disasters are often worse among economically and socially discriminated in fishing communities.

John T. Watson et al., (2017) study stated the effects of disasters and epidemics spread communicable diseases. It can be managed by providing basic health care service to people. The research dealt about the relation and risk of Communicable diseases eruption post disasters and epidemics.

Nowbodo Cynthia Ebere et al., (2020) research study stated that the growing threat of floods poses a dangerous future for families, especially poor farmers, who often live in geographically fragile areas and rely on climate-sensitive agriculture for their livelihood. Farm households on the other hand should take advantage of self-help organizations and other community structures in their area to maximize their resilience to climate change. To study the reality responses to the sys

#### **Major objectives of the Study are as follows**

- To study the Socio-demographic profile of the respondents
- To understand the preparedness of the respondents to the disaster-Gaja cyclone
- To study the reality responses among the respondents to the system of delivery of the relief services.
- To study the role of women in terms of disaster management
- To develop models of disaster management based on the experiences and suggestions of the respondents.

#### **Study Area and the Context of the study**

The recent cyclone Gaja hit very severely in the delta regions of Thiruvavur. In Tamilnadu, the delta regions of Thiruvavur District. These regions are based on agriculture for their livelihood and hence the cyclone has a devastating effect on these regions. It is very common to observe that there are at least 2-3 women groups in every village in the delta regions under the Mahalir Thittam of the State Government. Disaster management deals with the organization and management of resources and responsibilities for dealing with emergencies, in particular, preparedness, response, and recovery in order to lessen the impact of the disaster. In this regard, self-help groups form an unparalleled form of collective as community groups in mitigation activities. The study aims at understanding the problems faced, their psycho-social impact and the reality responses among the women for the mitigation of the disaster. Women constitute dynamic community groups in this area and hence the study will be helpful to reflect on the role of self- help groups in disasters and evolving disaster management methods in rural areas. Through this research focal convergence can be given to developing the women in self-help groups as active community groups towards disaster management.

Community-based Participatory Research (CBPR) is a collaborative process between the community-and Community - organizations and academic investigators. Community Based Participatory Research has the prospective to make research more responsive to current needs of the community and to enhance the community's ability to address the same.

According to Weiner Janet and McDonald Jasmine. Issue brief there are three models of Community Based Participatory Research (2013).Model 1 is applied for the study.

Model 1

Single theme collaboration between a University Based Centre and Community Groups.

Model 2

Targeted, Area-Based Collaboration between academic researchers and small group community organizations.

Model 3

Broad Based Coalition of Grass root organizations

### **Study Area**

The research areas constitute the five villages of Thiruthuraipoondi Block of Thiruvarur district severely hit by Gaja cyclone and the study employs Community-Based-Participatory- Research method to understand the psycho social impact and reality responses to the disaster. The study will use both positivistic and interpretivistic model of research to understand the experiences of women affected by Gaja cyclone. Apart from the Community Based Participatory Research methods using the Social Mapping & Functional Mapping, Case Studies and Focused Group discussions, a Self prepared interview schedule was employed to the respondents to assess their psycho social impact. Thus the present study will reveal the problems, reality responses and psycho-social impact and suggest modules of dealing with disaster with the help of women groups.

The psycho social impact of women to cyclones (Disaster) is analyses through mixed method approach – Both by Quantitative analysis and Qualitative Analysis. Qualitative analysis is done through Case studies and Group Discussions with observational feedback of the researchers. The keypointsof Discussion for policy making is derived through the Case studies and FGD's.

### Psycho-Social Impact of Cyclones Among Rural Women

Table 1  
Psycho-Social Impact of Cyclones- Idumbavanam

S.No	Psycho Social Impact	Frequency	Percent
1	Fear	32	34.5
2	Loss of livelihood/Despair	18	20
3	Insecurity	10	11
4	Other Depressive symptoms	12	13
5	Stress	14	15
6	Sleeplessness/Insomnia	7	7.5
	Total	93	100

Source: Field Work (Primary Data)

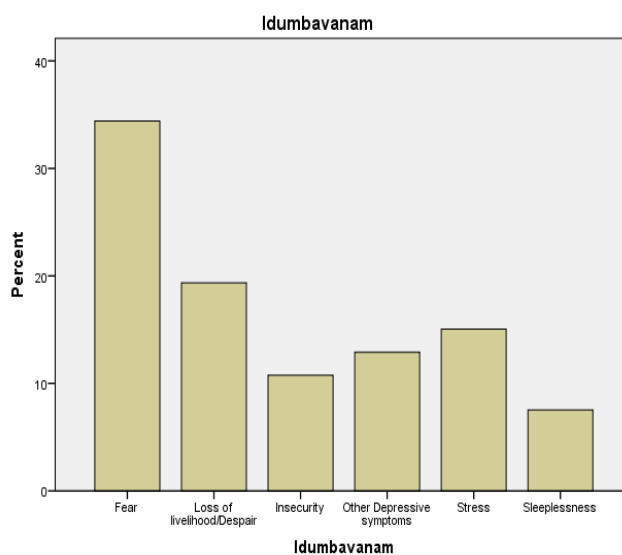


Figure 2

It is understood from above the table that 34.4 per cent of the respondents faced fear after Gaja cyclone which still continues, and 19.4 per cent of the respondents suffered the fear of loss of livelihoods/despair while 15 per cent respondent faced on stress in the post-disaster period, followed by 12.9 respondents who faced other depressive symptoms like anger spells, being reactive in nature etc., Nearly 10.8 per cent respondent who had feelings of insecurity after Gaja cyclone. It is also observed that only 7.5 per cent of people experienced sleeplessness/Insomnia after Gaja cyclone.

Table-2  
Psycho-Social Impact of Cyclones - Thillaivilagam

S.No	Psycho Social Impact	Frequency	Percent
1	Fear	37	40
2	Loss of livelihood/Despair	27	29
3	Insecurity	8	9
4	Other Depressive symptoms	9	10
5	Stress	5	4
6	Sleeplessness	7	8
	Total	93	100

Source: Field Work (Primary Data)

It is clear from above table that 40 per cent of the respondents faced fear after Gaja cyclone and 29 per cent of the respondents had feelings of despair. 10 per cent of the respondent feel other depression symptoms after Gaja cyclone, followed by 9 per cent of respondents feel insecure, while 8 per cent respondent experienced sleeplessness after Gaja cyclone and the remaining 4 per cent of people suffered from severe stress after Gaja cyclone.

**Name of the Village: Thuraikadu**

Table-3  
Psycho-Social Impact of Cyclones-Thuraikadu

S,No	Psycho Social Impact	Frequency	Percent
1	Fear	35	37
2	Loss of livelihood/Despair	13	14
3	Insecurity	10	11
4	Other Depressive symptoms	5	5
5	Stress	8	9
6	Sleeplessness	22	24
	Total	93	100

Source: Field Work (Primary Data)

It is evident from the above diagram that 37 per cent of the respondents faced fear both during and after Gaja cyclone & 24 per cent of the respondents suffered from sleeplessness/Insomnia for a period of not less than 2 months after the cyclone, while 14.per cent of the respondents experienced feeling of Despair due to loss of livelihood and 11 per cent of the respondents felt insecure, whereas 9 per cent of the respondent experienced stress after Gaja cyclone remaining 5 per cent of people felt other depressive symptoms like reactive nature and anger spells after Gaja cyclone.

Table-4  
Psycho-Social Impact of Cyclones- Udayamarthandapuram

S.No	Psycho Social Impact	Frequency	Percent
1	Fear	15	16
2	Loss of livelihood/Despair	34	37
3	Insecurity	5	6
4	Other Depressive symptoms	7	7
5	Stress	5	5
6	Sleeplessness	27	29
	Total	93	100

Source: Primary data

It is understood from the above table that 37 per cent of the respondents had feelings of Despair and 29 per cent of the respondents experienced sleeplessness, while 16 per cent respondent developed fear after Gaja Cyclone. 7 per cent of the respondents expressed other depressive symptoms like being very reactive in nature not engaging in routines and the remaining 5 per cent of people experienced Stress and insecurity of life after Gaja cyclone.

Table-5  
Psycho-Social Impact of Cyclones-Muthupettai

S.No	Psycho Social Impact	Frequency	Percent
1	Fear	24	26
2	Loss of livelihood/Despair	19	20
3	Insecurity	10	11
4	Other Depressive symptoms	9	10
5	Stress	6	6
6	Sleeplessness	25	27
	Total	93	100

A look at the above table clearly showed that 27 per cent of the respondents experienced insomnia after Gaja cyclone, and 26 per cent of the respondents had faced fear 20 per cent of the respondents damaged Loss of livelihood/Despair, followed by 11 per cent of the respondent's village people feel stress after Gaja cyclone.

### Research analysis & Interpretations

Evidences based on the case studies conducted among the rural women in Thiruvavur District draws the following conclusions. The experiences of the respondents are categorized under four major activities of Disaster Management (ie) Preparation, Mitigation, Response and Recovery. Totally 50 cases were selected out of which the case studies with repetitive findings were not recorded. Totally 25 cases were studied and recorded and the findings are recorded as below.

## **Preparation**

- It is evident that lack of preparedness to the disaster is a major reason for the psychological stress experienced by the women in rural areas.
- Social Vulnerability factors like family economy, gender, household income, infrastructure facilities of the family and the village in the pre disaster scenario play a significant role in determining the psycho-social impact of the disaster. Since they are already experiencing a hand to mouth existence, fear of cyclone and the stress and anxiety caused to them is relatively higher.
- It is apparent that community-based disaster risk reduction has proven more successful in managing the disaster during the time of disaster. The respondents have sought support in the nearby well-built homes for immediate recovery.
- Rural women were totally unprepared to meet the disaster despite warnings of the Government through the news and other channels.
- One major reason explained by the respondents is that they thought that the cyclone will not be so severe. There respondents have felt that they can manage the cyclone as they do not have any previous experiences of the severe cyclones earlier like Gaja Cyclone.
- Awareness at the pre-disaster phase is very minimal/ almost nil.
- It is evident that the women did not even take minimal necessities when they moved to the relief centres.
- The women have struggled to manage the children and the elderly due to lack of preparation. Lack of preparation is a major reason for the sufferings of these women in the relief centres.
- There is a need to understand the local conditions and risks associated with disasters in every village to plan further.
- There is a need to Promote Disaster risk communication at the local level since preparedness will play a significant role in disaster risk mitigation.
- The most critical consequence of disasters like cyclones is rural – urban migration. For example 2 families whose major source of income was livestock herding has migrated to some other town since they lost almost all the live stocks due to cyclone. Further details about those families are not available.

## **Mitigation**

- Mitigation efforts have been taken by the Government and the voluntary organizations during and before the cyclone. But the role of the local government in disaster mitigation is not felt by the respondents. It is also true that through the District administration efforts were taken to mitigate the impact of the disaster in rural areas. But due to the poor roads and lack of transports, it was even difficult for the service delivery agents to reach the vulnerable sections as they are already pushed to the corners unreached. Especially the people of kamaraj Nagar, Idumbavanam village are still facing the impact of the disaster/cyclone in their daily life. The walls have fallen during the cyclone and a mason named Mr. Ramu has lost his life and his family has migrated somewhere.

- The villagers were moved to the nearby school by the Government authorities when the cyclone was severe. But all men and women were made to stay together and there was completely no sanitation facilities in the relief centre. Women have suffered very badly due to menstruation and they use to cross through the tough roads and reach their houses/ open area for toilets which resulted in urinary infection and other related health issues.
- There was regular medical check up in their village in the post disaster phase.
- It is felt by the people that the government authorities did not reach inside their houses to actually check the real damage of the cyclone. Though the house looked better from outside, it is observed by the researcher that the house still remains with lot of repairs and damages caused by the cyclone till date.
- Since food supplies were provided by the ration shop, women could manage their livelihoods in the post disaster phase. Due to the damage caused to the agricultural fields, they could not get any agricultural labour work also.
- The relief amount was disbursed with lot of delay and continuous follow up. Out of the assured relief amount of RS. 9000/- only Rs. 4000/- has been received by them. It is observed that in few cases, the women expressed their agony and pain since their families were not covered for the benefits to repair their house as they had a own house. But their food stores were already spoilt due to the cyclone.

### **Response**

- Awareness on listening to news and other warnings has been felt important by the people which will help to promote better preparedness in disaster management.
- Livelihood impact is very high in terms of food security.
- Livestock care homes are to be set for every village.
- Every village should have a well-equipped relief centre.
- There was no electricity for nearly 2-3 months in the village in the post disaster phase, which increased the fear of reptiles during night times.
- Immediate community networks like schools, charity workers and voluntary organisations work has been felt significant by the people.
- It is observed that the people were supportive to each other during the disaster. Immediate social networks have supported them till they moved to the relief centre.
- It is evident that the community-based disaster risk reduction has been very effective.
- It is also apparent that the preparedness toward a disaster has increased among the women, to a considerable extent in the post disaster phase.
- Women have felt the important of having well built houses with toilets and storing food supplies for immediate needs.
- Community have been effective is rebuilding their village to normalcy by setting things in place.
- Delivery of relief materials did not reach this village many times due to lack of proper road to the village. The roads were muddy.

## Recovery

- The socially vulnerable communities especially women have not yet recovered from the psycho social and economic impact of Gaja Cyclone.
- Since they depend on agricultural labour as their major income, Gaja Cyclone perplexed their income base as even the land owners were severely affected by the cyclone.
- Community networks have played a vital role in recovery phase of the villages.
- There is still problems of water and sanitation for the village women.
- Most of the toilets are half built and not in use.
- Girl children face the problem of security during and after the cyclone as they had to manage in the common rooms provided in the relief centres. They were psychologically just stuck to their mothers in fear and anxiety.
- Women are still juggling in poor households with children in broken houses with lot of debts and finding means of better standard of living. Rural women experience fear of livelihood on a daily basis while a disaster makes it more projected and evident.
- Review Syntheses clearly reveal that there are no participatory studies carried out in the present study area exclusively with women focussing on their psycho- social Impact, reality responses and the problems faced by the women Thus the present research proves its significance both by its approach and findings.
- There is a need for technology transfer to rural areas on disasters.
- Socially vulnerable groups are the most affected facing major impact both psychologically and Socially.
- There is a need to strengthen the women in the vulnerable socially backward areas to meet / deal with disaster with enough preparedness.
- There is a need for a professional management of disasters at the rural level.

The findings of the discussion give valuable insights on various aspects of the damages caused by the cyclone. The level of knowledge of the respondents varied as did their perception and understanding of the impacts of the cyclone. The findings of the focussed group discussions clearly indicates the need to

- Build a disaster management shelter in areas more exposed to such calamities frequently.
- A broader sensitization about such disasters and calamities should reach even the grass root sections.
- The economic support for flood affected families should be stressed upon. There is need to identify the poorest of the poor and then distribute the relief materials.
- Basic necessities should be promptly provided for the affected areas.
- Increase in the unemployment after a natural disaster and the need to tackle it.

## Research outcome

### Study-based findings & suggestions

#### ***Psycho social symptoms experienced by women***

**Fear:** Women fear increased as the distance to the sea decreases. The location of the village is a major determinant associated with fear among women on the impact of the cyclones.

Many women have narrated the

**Sleepness-** almost 98% women experienced sleepness due to the economic and psychological impact created by the cyclone. In the pre-disaster phase the sleepness may be attributed to the fear of facing the disaster.

**Insecurity**-is observed to be high (87%) among the residents of the interior villages which may be attributed to the delivery of relief services and networking at a faster pace than the roadside villages.

**Other depressive system**-symptoms include anxiety, anger spells, lack of motivation, reactive in nature, which directly have an impact on their daily routines like cooking, child care etc.,

Socio-demographic analysis of the respondents in the study area reveals that an unexpected disaster without proper preparedness and planning makes the poor become poorest and it increases the family indebtedness to a greater extent which results in migration and homelessness at a larger level.

- It is observed that they do not have enough savings to get ready for the disaster management.
- More than 90 percent of them depend on agricultural labour/ daily wage as their source of income. So they were not prepared for a period of joblessness due to rain and cyclones.
- It is understood that the district and state authorities and the people are not working in the same direction. The disaster mitigation planning need a higher degree of participation of the people.
- Participatory study on the preparedness of the respondents to the disaster reveals that they were not totally prepared to meet the cyclone and the few warnings they heard is through the public address system in two villages while others watched news and came to know about it.
- The Livestock care has been a major problem faced by the women as they are the caretakers of the livestock all through the year. Almost 90 percent of the houses do not have proper sheds for the livestock.
- Specific discussion focused on psycho social impact reveal that these women were immediately stuck and stressed by loss of house, lack of income and they were really worried on where to start to rebuild. Daily needs were met due to the minimum reserves for 3-5 days after which they had no other go but to depend on the support of the government, voluntary organizations and charity.
- It is very clear that the women in the study area are psychologically highly vulnerable and due to multifold sufferings of hunger, physical work, lack of sleep. Caretaking of children and the aged and insufficient facilities in the relief camps during the disaster and they are physically and mentally they are in a burnout situation, which results in delaying of the Disaster recovery process. It is found that the Depression was very high for these women affected

- by Gaja cyclone. As soon as they came back home also, they suffered almost for 1-2 months to get back their power supply and proper water for home.
- Though there is a Disaster Management Building maintained by the Department of Disaster Management of the Thiruvavur district at Idumbavanam, it is a one big hall without any partitions for women and men. Moreover, the number of toilets and bathrooms are not proportionate to the number of people who stayed there during Gaja cyclone. It is also observed that there are no Disaster management buildings available in Thillaivilagam and Thuraithoppu.
  - While these people stayed in a nearby village called Thondiakadu. While these people were moved to the short stay homes, the livestock remained in the same villages as there are no protected options for them, which resulted in the loss of livestock to a greater extent. It is observed that there is a total loss of livelihood due to loss of livestock due to Gaja cyclone. In a case study conducted at Thillaivilagam it is observed that there was a loss of around 15 goats in one family, which has seriously impacted their livelihoods and till date they have not received any compensation from the government.
  - It is observed that the benefits announced by the Government of Tamil Nadu for relief and recovery of Gaja cyclone has not been released completely till date. Out of 9000/- Rupees promised to be supported for repair of their houses, only Rs. 4000/- has been credited in most of the cases.
  - There is a need to revive the indigenous skill set available with the villagers which varies from village to village. For example, the pettai temple area people are experts in “coconut leave roofing’s for the houses”.
  - It is a notable observation that the people who stay in Pettai temple area of Thillaivilagam do not hold Patta for their households (nearly 150 Households) and hence they are ineligible for any kind of government support.
  - It is observed that the charity work by the affordable members of the community has supported the women to a greater extent as of food security during and after the cyclone is concerned.
  - Though the voluntary agencies have come to support the villagers in their immediate relief work by engaging in activities like providing food, water bottles etc., the interior areas of the villages remained aloof.
  - Regarding the psycho social impact of the women due to the cyclone, it is observed that it has immediately caused a food and economic insecurity among the rural women which resulted in multi-variant expressions and impacts.
  - Feeling of Insecurity is a major expression due to unavailability of food stocks, damaged household and lack of power supply.
  - Major Fear symptoms experienced by the women due to cyclone are as follows.  
Fear of cyclone – Before Disaster  
Fear of loss of livelihood – During disaster  
Fear of death
- Most of the women expressed the feeling of despair and worry that they had a question in their mind that “What will happen to my children if something happens to me?”
- Since it took almost 1-2 months to get back the power supply in the rural areas, they faced the fear of reptiles after they went back to their houses from the disaster –Relief Camps.

- Physical infrastructure for disaster management is not readily available in the areas.

**Specific policy actions to support the rural women affected by disasters - key recommendations made in the report include:**

- Systematic inclusion of generating gender and age disaggregated data at the grassroots level from every village
- Integration of village women representatives in disaster resilience-related programmes,
- Identify the roles of women in pre- post Disaster Management and give due training for the same by the District Authorities.
- Explore, locate and maintain short stay homes for every block for short-stay homes during disasters to be utilized with proper sanitation, security and other issues.
- Promotion of Village level Disaster Management Unit with representative women from each village in a block.
- Village level Disaster Management Unit should be given consistent training in Disaster Management and immediate reporting and call for action through the district level authorities to be enabled. Strength based approach should be applied to understand the profile of the women in each Block and accordingly Disaster Management efforts are to be taken.
- Establish links of Disaster Resilience-Preparedness and long-term implications for these rural women.
- Develop a set of best practice case studies on gender integrated disaster management programmes.
- There is a need to understand and take responsive action of the environmental stress, financial and food crises, migration and other factors of 'disasters' and how they are experienced by women and men, girls and boys needs to be understood as a cross cutting issue in policy formulation.
- There is a strong need to provide safe drinking water to everyone in the relief camps.
- There is a need to provide separate rooms and wash rooms for women and children.
- There should be clear instruction on the various set of emergency health care kits specially to address the health needs of women and children.
- There is a need for health care facilities to the inmates in the relief camps, to prevent communicable diseases.
- The relief camps should be stocked with all basic health and sanitation facilities like availability of hot water, first aid kits, sanitary napkins, etc.,
- The interior villages should be noted down by the authorities to ensure reach of the same for relief activities during the times of the disaster as it is observed that the road side villages avail the benefits of the services of multiple agencies while the interior/remote locations are deprived of the services and the information's.
- The primary health centers and the sub centers should immediately act on identifying the potential patients and provide the list to the District Disaster Management Authority.

- The list should include village wise details of the pregnant women, single mothers, children, elderly etc., so that their health needs can be attended immediately during the times of disaster.

### **Strength –Based Model of Disaster Management**

There is a need to reconceptualize vulnerability protecting the humanitarian values especially in times of disasters. There is a need for comprehensive Disaster management policy at the village level and informalization of provision of care especially to the women and children during the disaster. The procedures on the books should be translated to actions which are realistic and need based to reach the poorest of the poor.

### **The researcher advocates Strength –Based Model of Disaster Management on the basis of the DFID Model of livelihood promotion**

The strength of each village, each community will differ and accordingly their assets also. There is a need to understand the strength of each community and accordingly plan the research. Some villages are strong in physical capital, while some other villages are strong in financial/ Economical Capital. Few villages may be rich in their natural capital. Hence the researcher suggests a Capital Survey in each village and then based on the asset pentagon the villages may be classified and disaster management activities can be planned.

### **Steps in Strength Based model of Disaster Management**

1. Identify the strength of the capital (natural, physical, economical, social etc.) in each village.
2. Complement the mutual strength of nearby villages.
3. Vulnerability analysis in the pre –disaster phase will give the most needy list for relief services.
4. Address the most vulnerable first and then others through the complementary strength of nearby villages.
5. For example one village will have good buildings and infrastructure
6. Another village may be strong in social capital and neighbourhood links.
7. Another village may have lot of natural resources.
8. Through proper planning, natural resources can be stored in the village with better infrastructure and people can support each other.
9. Wealth ranking to be conducted for every village and poorest of the poor to be identified and supported first.

### **Women-Centric-Model of Disaster Management**

Community Based Participatory research on the problems and reality responses of the rural women insists the need for Women-Centric-Model of Disaster Management, since dealing with family as a whole becomes more appropriate if women lead the disaster management process as their care taking share holds a higher percent in the rural households. This will address more sensitive issues of women like menstrual care, Pregnancies during disasters, Child care, old age care with specific focus and realistic understanding with minimal resources at the

rural level. Since there already exists organized women groups in almost all the villages in the form of self-help groups. This model addresses immediate needs at the household level and the secondary needs at the community and society level as a whole. Single Women, Women with young children, Women in Despair, Young girl children, their safety and security during a disaster, Menstrual issues, Primary health care issues, can be addressed and reported immediately much better by women than by men.

### **Conclusion**

There is a need to reconceptualize vulnerability protecting the humanitarian values especially in times of disasters. There is a need for comprehensive Disaster management policy at the village level and informalization of provision of care especially to the women and children during the disaster. The procedures on the books should be translated to actions which are realistic and need based to reach the poorest of the poor. Thus it is observed that the cyclones have worse impacted the psyche of the women in the rural areas thereby creating an insecurity of food, shelter and income. It is apparent that the Government has tried to support the people through the administration at the local level. However, it is clear that there is a need for a professional system of local administration to address the vulnerability index of women in every village without the influence of caste, creed or any other aspect which is a pre-requisite for effective disaster management at the rural level. Thus, the present study clearly indicates the psycho social impact of cyclones of the women in the rural areas is influenced by the social vulnerability factors of the respondents in the pre-disaster phase. The responses recorded under the four major areas of the problems of the women like Infrastructure, psycho-Social Impact and response and recovery aspects revealed that the time for recovery is indirectly proportional to the economic status of the respondents. Social vulnerability factors play a significant role on the psycho social impact of cyclones among rural women. Hence it is important for the policy makers to have a clear list of vulnerable population village-wise and poorest of the poor should be the first set of population to receive the benefits provided by the government and non-government authorities. There is need for professional administration of disaster management at the village level despite all other factors of influence. There is a need for strict monitoring of the response and recovery activities to ensure speedy delivery of disaster recovery services and to avoid unethical practices in relief services. Thus the present study has provided an opportunity to understand the reality perspectives of disaster management among rural women and to provide suggestions for the same. As suggested in the study, Strength based model of disaster management and women centric model of disaster management will help them overcome their vulnerability during times of distress like disasters.

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