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### THE ROLE OF MEDIA IN SCIENCE AND TECHNOLOGY EDUCATION, DEVELOPMENT AND REHABILITATION OF WOMEN AFFECTED BY THE 2004 TSUNAMI IN THE OF THE STATE OF TAMILNADU

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#### ABSTRACT

The great Sumatra earthquake of 26 December 2004 generated a destructive tsunami which devastated coastal communities bordering the Indian Ocean, killing thousands of people in Indonesia, Sri Lanka, India, Thailand, Somalia, Myanmar, the Maldives, Malaysia, Tanzania, Seychelles, Bangladesh, South Africa, Yemen and Kenya. It was one of the deadliest natural disasters in modern history. In India, the death toll and damages were severe, particularly along the southern and eastern coastal regions. Subsequently, central and state government authorities in the state of Tamilnadu - one of the most severely stricken regions - took immediate measures for tsunami preparedness and rehabilitation. The media played a major role in this effort by communicating to the public information related to the science and technology facts of tsunami hazards and to ways of mitigating their impact with better understanding and preparedness. Through its superior ability to communicate effectively information, the media became the role model in helping people make decisions for their own welfare. The present study was undertaken for the purpose of determining the media's role in the post-rehabilitation efforts and particularly in improving the status of affected women of the north Chennai region, who were forced to migrate from Ernavour and Ennore, in Chennai district, in the India state of Tamilnadu, by providing them science and technology communication.

**Keywords:** *India; tsunami; media; preparedness; rehabilitation; post-disaster; education.*

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## **1. INTRODUCTION**

The physical characteristics of tsunamis and their impact on coastal communities are well known and adequately described in the scientific literature (Lorca et al., 1997). Along the coastal areas of south India the 2004 tsunami caused serious damage and numerous deaths. The majority of the victims were women and children. Subsequently and over a period of time, local government authorities searched for solutions to help the people who were adversely impacted by the tsunami, in spite of objections to rehabilitation efforts by various political parties and NGOs.

After the tsunami disaster struck the region, people faced many problems due to lack of information and of awareness about available resources. Their lifestyles had been totally altered by losses of relatives, of properties and by the disruption of daily routine activities. As a result, mass media became the essential form of communication for such people who were in search of survivors and for ways to meet their basic needs for food, shelter and safety. Thus, the media assumed a major role in the post-tsunami rehabilitation efforts in Tamilnadu. Furthermore, through effective and essential communication, the media helped inform and educate people about the tsunami hazard - thus enhancing their awareness and the need for disaster preparedness. The present study analyzes the role of the media in improving the rehabilitation status of women in the severely impacted region of North Chennai by communicating effectively information to those who immigrated from Ernavour and Ennore, Chennai, on Tamilnadu.

### **1.1. The 2004 Tsunami in the Chennai District.**

The great earthquake occurred off the western coast of northern Sumatra on 26 December 2004. The tsunami that was generated devastated coastal communities in Indonesia, Sri Lanka, India, Thailand and many other countries with waves ranging up to 30 m (100 ft)(Nalbant et. al, 2005). The tsunami struck south India and large scale devastation was reported. Tamilnadu was the “worst affected” with possibly over 8,000 people killed. At least 7,910 people were confirmed dead in Tamil Nadu with over 100 more people dead in Chennai alone. According to the Oxfam report, as many as four times more women than men were killed in some regions because they stayed at home caring after their children or were waiting on the coast for the fishermen relatives to return from offshore areas (BBC News, 2005). Chennai was worse hit by the tsunami and its entire Marina coastline was severely affected. According to government estimates, about 44,000 families in the Chennai District faced the direct impact of the destructive waves, losing relatives, their livelihood and their properties. (Rao, 2005)

The inhabitants of Tamil Nadu’s coastal areas had a variety of occupations which included many trades such as fishing, selling fish, domestic help, auto driving, peddlers and hawkers, painters, carpenters and other miscellaneous activities. Many of the women who lost their husbands and sons by the tsunami found themselves heading their remaining families. Thus, special attention was given to women who headed households, as they were no longer able to resume their traditional roles and hence they required specific support in preparing for new livelihoods and assignment of legal inheritor certificates.

## **1.2. Women and the Media**

India is a large and diverse country with equally sizeable and varied media. The mainstream media does not merely “reflect” reality but shapes it, both at ideological and material levels. While at times the media is relatively open to the majority of women’s roles and their contribution, these attempts often remain unseen and unheard of because of much stronger forces of negative messages. However, since the women’s movement of the 1970’s and 1980’s, issues related to women began to be addressed and find their way into mainstream media (Janaki, 2006).

Many issues related to women’s struggles against violence, dowry, rape and their fight to protect the environment, have received a great deal of sympathetic coverage in newspapers and in television channels. Hence, the role of mass media is not just to import information on science and technology to the people but to have a desired impact upon their minds. This is only possible when the people that work for the media are fully aware of the life, attitudes and problems of the people in their communities (Joseph, 2005)

## **1.3. Need for the Study**

The 2004 tsunami was not only disastrous in India but affected people worldwide. While looking deep into the problems related to the tsunami, it is tragic to note that even a natural disaster can be profoundly discriminatory. The majority of those killed were women and children. This entire proposition regarding the intense need to address women’s specific concerns arises by the fact that the tsunami killed more women than men. Women who survived the tsunami but were dislocated faced a numbers of problems. During the post-tsunami rehabilitation period, the various media covered widely such problems and the issues related to the consequences that had affected women’s communities. The nature of disaster created immense changes in the livelihood of women which affected them both economically and psychologically.

## **1.4. Aim**

The purpose of the present study was to identify and evaluate the effectiveness of the media in communicating needed information in the rehabilitation of women that were impacted by the tsunami, and specifically in determining the role of media in helping improve the status of the women that were forced to migrate from Ernavour and Ennore of North Chennai.

## **1.5. Objectives**

The study focused on the following objectives:

- Determining the knowledge and awareness of facts and information about tsunamis provided through the media to women’s groups.
- Analyzing the amount of exposure by the media in communicating effectively tsunami and natural disaster information to women.

- Analyzing the role of the media in public education and in providing solutions that help ed the rehabilitation of women affected by the tsunami.
- Determining media efforts in the overall rehabilitation of tsunami stricken areas.
- Analyze the impact of the media in the rehabilitation of women affected by the tsunami

## 2. REVIEW OF LITERATURE

Most of the studies conducted in India in the field of developmental communication focus on issues unrelated to gender. Very few efforts have been made to study the role of women in mediated development. However, the role of mass media in women's development has attracted the attention of social scientists. Gallagher has produced a most valuable document under UNESCO's sponsorship which clearly establishes that media has offered unequal opportunities to women (Ramanamma, 2005).

The private partners and the media networks were involved at all levels to ensure equal access for women in the area of information and communication technologies. Media would be encouraged to develop codes of conduct, professional guidelines and other self-regulatory mechanisms to remove gender stereotypes and promote balanced portrayal of women and men (Janaki, 2006).

Women in fishing communities are economically weaker than in other communities. Often, such groups suffer more from the direct consequences of a natural disaster because they are less informed, less prepared and less protected. Also, they suffer more from the indirect impact in private and public life as the disaster is transferred and compounded via economic, social, political and family relationships (Rosengren, 1985).

The special protection needs for women require careful consideration. The voices and perspectives of women and women's support networks need to be given visibility in national strategies for relief and reconstruction, by aid organizations and by the media. By responding in this fashion, a crisis can be turned into an opportunity for laying the foundations of a future where all people can live with dignity, security and justice (Ivan, 2005).

Gender is often seen as a narrow, special interest issue far removed from mainstream news coverage. However, gender awareness can actually lead to a better and more holistic understanding of any event and its after-effects. Taking the time and trouble to talk to women and women's groups - even in a crisis situation - can not only yield insights into the larger picture but point the way to special stories that are not only interesting but significant (Sharma, 1987).

The media and its professionals stand to gain by recognizing that during a disaster there is a gender dimension related to every event, process and institution. The information covered by the media originates from the individual experiences of those women - including poor and illiterate women - who have gained information, knowledge and opinions because of actual exposure to hardship (Devadas, 2005; Sharma, 2005).

There were a few scattered glimpses in media coverage soon after the disaster struck India of the special vulnerabilities of women in such situations. For example, there was one story about women having been hampered by their sarees in their bid to escape the waves. Another one was about

women being raped and molested in unprotected refugee camps (Oxfam, 2005). Since mainstream media are the main channels in creating disaster awareness and disseminating information about programmes launched by the government for the welfare of the public, a proper understanding of the communication process is indispensable to introducing planned changes in a democratic society like India. In his essay "Designing Messages for Development Communication: An Audience Perception Based Approach" Bella (1991) has critically opposed the 'Dominant Paradigm' and argued for upward movement of communication and development based on active participation of the people.

Media coverage of humanitarian crises is widely believed to influence charitable giving, yet this assertion has received little empirical scrutiny. Using Internet donations after the 2004 tsunami as a case study, shows that the media coverage of disasters has a dramatic impact on donations to relief agencies, with an additional minute of nightly news coverage increasing donations by 0.036 standard deviations from the mean, or 13.2% of the average daily donation for the typical relief agency. Similarly, an additional 700-word story in the New York Times or Wall Street Journal raises donations by 18.2% of the daily average. These results are robust to controls for the timing of news coverage and tax considerations. The analysis using instrumental variables to account for endogeneity bias and the estimates are unchanged. However, it was founded that the effect of news coverage varies considerably by relief agency (Brown and Minty, 2004).

Mainstream media are useful if they promote mass participation as a means or an end. As we know that the tsunami killed more people in 12 countries spanning South-east Asia, South Asia, and East Africa while, according to the Red Cross, more than 1.6 million people were displaced. And yet there is precious little accurate, disaggregated data that shows how many of the dead were women, or how many women were missing or displaced. In Indonesia, four villages in the Aceh Besar district surveyed by Oxfam Community Aid Aboard (2005), shows that "four times as many women as men were killed" and only 189 of 676 survivors were female. Male survivors outnumbered female survivors by a ratio of almost 3:1. In four villages in North Aceh district, out of 366 deaths, 284 were females. Females accounted for 77 per cent of the deaths. In the worst affected village of Kuala Cangko, the ratio was 4:1.

Several criteria were used in assessing the impact of disaster media coverage on viewers. In his report Bandura (2006) notes, "Past correlated experiences heighten vicarious arousal because they make what happens to others predictive of what might happen to oneself"(emphasis added).

Communication is an important part of disaster prevention and management. An important channel is the mainstream media: Newspapers, television, radio and - increasingly important - the Internet. There were also hints of potential gender-related stories in some other early reports. Countless earlier examples of post-disaster and post-conflict situations, including the post-Kargil scenario, have demonstrated that the most vulnerable in society - including women and children - often tend to lose out in this process (Peters, 2005). Hawkey (2006) states: "We live on images and to grasp our humanity, we need to structure these images into metaphors and models." This sounds very much like what communication theorists have been saying about media image and metaphor as they relate to a story.

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Media coverage on disaster issues were presented as text, as process and as mediator of reality. This theoretical development began with the study of media effects in early communication studies. An article entitled “Impacts of media coverage on the community stress level in Hong Kong after the Tsunami on 26 December 2004” (Lau, 2005), suggested a study of media coverage in terms of frequency of coverage, visual images and distressful contents as a strong predictor of stressful responses related to the tsunami. Another article entitled “Human misery is bigger news than a safe population” (Akkam, 2006), emphasized that the media has a significant role in lobbying for administrators to become more responsive and in bringing attention to the fact that the vulnerability of women to disasters depends on their social, cultural and economic status. Another article from the UN 2005 Chronicle entitled “Earthquake and Tsunami in the India Ocean”, revealed that the Indian Ocean tsunami produced some very gender-specific impacts, ranging from women’s traditional role in caring for the sick to increased cases of rape and abuse. Understanding and measuring these differences is essential for an effective post-disaster response and recovery.

### **3. METHODOLOGY**

#### **3.1. Survey Method**

A comprehensive survey was carried out to determine the media role in helping rehabilitation problems of women victimized by the 2004 tsunami. The survey collected opinions and experiences directly from women impacted by the tsunami. The data was analyzed to establish the role of the media and its effectiveness in communicating tsunami issues to women. The survey covered various age groups of both illiterate and semi-literate women from those that migrated from Ernavour and Ennore to North Chennai.

#### **3.2. Sampling**

Chennai is the capital of Tamilnadu, one of the most important, densely populated and fast developing states in India. The survey was conducted randomly on North Chennai. Two hundred women were selected as a representative sample from the total population and the surveyors used individual questionnaire forms to collect and record views and opinions from the respondents. On the basis of this survey, a comparative analysis was done to find the lack of communication and awareness on tsunami rehabilitation issues among the tsunami affected women.

The questionnaire consisted of two parts. Part I dealt with the personal information of women, such as age, religion, education, marital status, family size, children, occupation and income before and after the tsunami struck. Part II contained questions pertaining to their media exposure in communicating tsunami information before and after the disaster struck.

#### **3.3. Case Study**

The present study is one of depth rather than breadth. It was essentially an intensive investigation with the objective of determining factors that could account for behavior-patterns of the

given unit as an integrated totality. Thus, the study was undertaken to understand women's problems after the tsunami and to analyze media exposure in communicating the necessary information related to tsunami rehabilitation of the women adversely affected.

#### 4. FINDINGS AND DISCUSSIONS

The following section provides the results of the survey and an analysis of the collected data.

##### 4.1. Occupations before the tsunami

Table 1 summarizes accurately the occupations of the women in the surveyed group before the tsunami struck. Nearly 49% were daily wagers, 22% were housewives, 19% were small entrepreneurs, and 10% were employees.

Table 1. Occupations before tsunami

S.No	Occupation	No of Women	Percentage
1.	Housewives	47	22
2.	Small scale business Entrepreneurs	39	19
3.	Daily wage workers	102	49
4.	Employees	21	10

##### 4.2. Occupations after the tsunami

Table 2 summarizes the occupations of the same women in the group after the tsunami struck. The survey shows that 52% were daily wagers, 23% were small business entrepreneurs, 14% were employees and 11% were housewives. Comparison of Table 1 and Table 2 clearly identified that after the tsunami the percentage of housewives decreased and more women had to go to work. This also illustrated graphically by Figure 4.1(a).

Table 2. Occupations after Tsunami

S. No	Occupation	No of Women	Percentage
1.	Housewives	25	11
2.	Small scale business Entrepreneurs	48	23
3.	Daily wage workers	109	52
4.	Employees	27	14

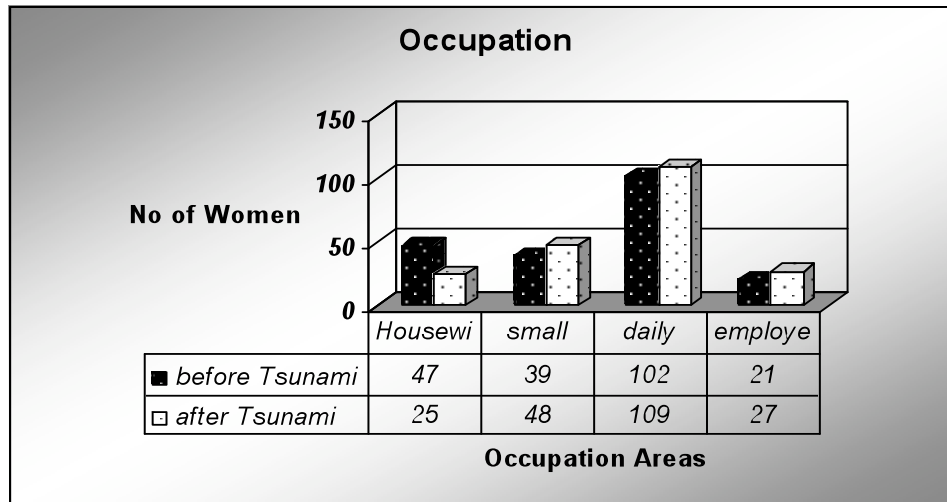


Figure 4.1(a). Occupational status of women respondents before and after Tsunami

### 4.3. Annual Income before the Tsunami

Table 3 provides data on the income distribution of the women in the group prior to the tsunami. The survey determined that 30% had annual income ranging up to Rs.10,000, while 20% had annual income ranging up to Rs.40,000. About 17% of those surveyed belonged to Rs.10,000 – Rs.20,000 group, 17% belonged to the Rs.20,000 – Rs.30,000 group and 16% belonged to the Rs.30,000-Rs.40,000 group. It became clearly evident from the survey that the majority of the women who had been victimized by the tsunami belonged to the lower income groups which did not have sufficient economic support from small scale business and daily wages.

Table 3. Annual Income before Tsunami

S.No	Income	No of Women	Percentage
1.	Upto 10,000	63	30
2.	10,000 to 20,000	36	17
3.	20,000 to 30,000	35	17
4.	30,000 to 40,000	33	16
5.	40,000 and above	42	20

### 4.4. Annual Income after the Tsunami

Table 4 reveals that up to 19% of the surveyed women belonged to Rs.10,000/- annual income group and 22% belonged to the Rs.40,000 group. About 14% belonged to Rs.10,000 – Rs.20,000 group, 25% in the Rs.20,000 – Rs.30,000 group and 20% in the Rs.30,000-Rs.40,000 group. This also confirmed that majority of women affected by the tsunami belonged to the lower income groups.



Table 4. Annual Income after Tsunami

S.No	Income	No of Women	Percentage
1.	Upto 10,000	39	19
2.	10,000 to 20,000	29	14
3.	20,000 to 30,000	52	25
4.	30,000 to 40,000	43	20
5.	40,000 and above	46	22

#### 4.5. Family Size

Most of women affected by the tsunami were married. Usually, early marriages are more common in areas where illiteracy rate is higher. The survey indicated that the family size ranged between 3 to 5 members (Table 5), but about 15% had six members in their family.

Table 5. Family size

S.No	Income	No of Women	Percentage
1.	2 members	14	7
2.	3 members	25	12
3.	4 members	93	44
4.	5 members	45	22
5.	6 members	32	15

#### 4.6. Mass media preference before tsunami

In regard to the mass media preference, Table 6 indicates that more than half i.e., 59% of women affected by the tsunami preferred television because it is the most powerful medium of mass communications in the electronic age, since it provides visual as well as technical background information. Whereas 16% of the more literate women preferred newspapers, 19% stated that radio was their preferred media and 6% stated showed magazines because of the easy of accessibility.

Table 6. Mass Media preference before the tsunami

S.No	Medium	No of Women	Percentage
1.	Newspapers	34	16
2.	Magazines	12	6
3.	Radio	39	19
4.	Television	124	59

#### 4.7. Mass media preference after tsunami

In regard to preference of mainstream media after the tsunami, the survey data in Table 7 shows that 61% of the women affected by the tsunami preferred television because it is the most powerful medium of mass communication - which also helps create opinions and perceptions. Television broadcasts specifically emphasized information messages related to tsunami rehabilitation. Also, the survey determined that 10% of the respondents in the group preferred newspapers, 24% preferred radio and 5% preferred magazines. Comparison of Tables 6 and 7 - graphically illustrated by figure 4.7 - clearly indicate that more than half of the women respondents preferred television and that there was an increase in preference by 4% after the tsunami. The data indicates strong public support of all media resources during the tsunami disaster. The variation in the preferences is mainly due to the availability and accessibility of certain media and also in difference of understanding the messages. Thus, the mainstream media – and particularly television - played a significant role in communicating information to the tsunami affected women which helped with their efforts of rehabilitation and further development after the disaster.

Table 7. Mass media preference after the tsunami

S.No	Medium	No of Women	Percentage
1.	Newspapers	24	10
2.	Magazines	09	5
3.	Radio	49	24
4.	Television	127	61

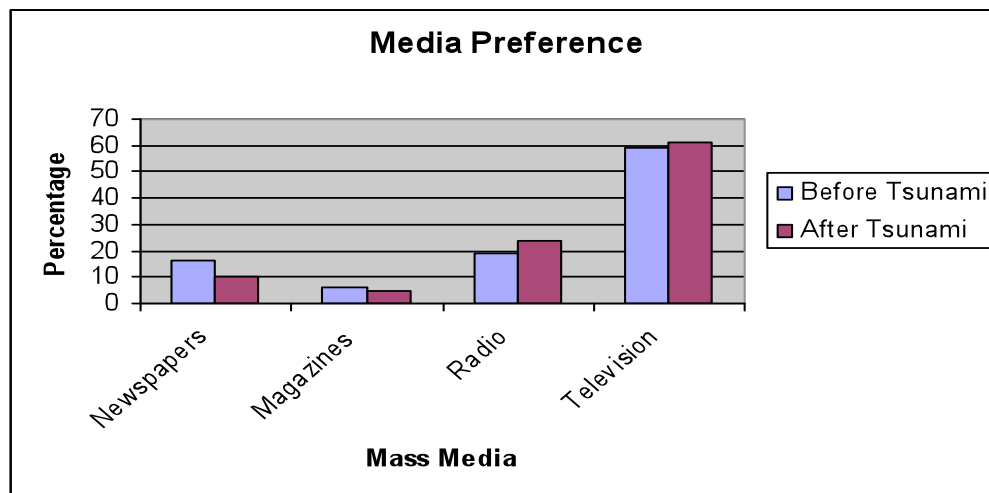


Figure 4.7 – Media Preference of Women affected by the Tsunami

#### 4.8. Help rendered by different media to Respondents

Table 8 summarizes the results of the survey as to which of the media provided information that was most helpful to the women affected by the tsunami. Again, 61% of the women respondents identified television, 10% identified newspapers, 24% identified radio and 5% identified magazines. Overall, it was clear that the mass media plays a significant role in communicating useful information. In fact, because of their exposure to the media many of the respondents in the survey got job opportunities or gained other economic help from the government and NGOs.

Table 8. Help rendered by different media to the respondents

S. No	Most helpful Medium	No of Women	Percentage
1.	Newspapers	23	10
2.	Magazines	07	5
3.	Radio	51	24
4.	Television	128	61

#### 4.9. Most of the supportive Programmes in Television media

From the above data, it becomes clear that television played a major role in communicating information for tsunami rehabilitation. 83% of the respondents stated that news bulletins were particularly helpful during and after the tsunami struck by updating needed information (Table 9). Also, it became clear that news bulletins were the most helpful programs in helping the women affected by the 2004 tsunami. The national television channel “Doordharsan” telecasted a special programme about tsunami rehabilitation – as pointed out by most of the women respondents. However, 12% mentioned that special interviews in certain local regional channels communicated effectively tsunami-related issues, 7% mentioned special programs and 2% mentioned documentary material by a few local channels. In some cases it appeared that language difficulties among the respondents may have been a barrier for effective communication by the media.

In conclusion, mass media plays a significant role in the perception of modernization and helps significantly by including Job opportunity messages. In fact, because of exposure to the media many respondents got jobs or other economic help from Government and NGOs.

Table 9. Most of the supportive programmes of television media

S.No	Most helpful Programmes	No of Women	Percentage
1.	News Bultins	173	83
2.	Special Interviews	25	12
3.	Special Programmes	7	3
4.	Documentaries	4	2

#### 4.10. Case Study

As previously stated the study involved a comprehensive survey of women affected by the 2004 tsunami in north Chennai. The study required an intensive investigation, careful observations and analysis of women's rehabilitation issues, as well as the women's knowledge and awareness of media communications, of their family backgrounds, of lifestyles, of psychological behaviors and of their economic status before and after the disaster. Also, the study was undertaken in order to better understand women's problems after the tsunami and to analyze and evaluate the media exposure in communicating necessary information related to their rehabilitation. This is one of the pioneering studies that attempts to find out the perspectives of mediated developmental communication as focused on and understood by the tsunami affected women in North Chennai. It has also focused on the relationship between media and women in the development context of North Chennai.

The tsunami affected people in Ernavour and Ennore were forced to migrate to North Chennai because of lack of basic necessities at home where the impact of the disaster had been severe. Nearly, 75 percent of the people in these areas depended on fishing for their livelihood. Furthermore, their socio-economic conditions were generally low along with a very low literacy rate. Most people – even the young – were semi-literates. The delay in permanent rehabilitation for many of the tsunami victims in the state led to loss of livelihood and resulted in serious socio-economic problems – some even selling their kidneys to make living. The share autos were doing a brisk business moving people to collect relief material - cooking utensils and plastic pots – provided by Karunalaya, an NGO in Tondiarpet, Chennai. Indian women traditional wear sarees and blankets which were tied to poles to serve as makeshift shelters for the residents (The Hindu, 21/06/2005).

In addressing the problem of the people in the tsunami affected areas, Government and NGOs like Karunalaya constructed semi permanent houses in Kathivakkam and Ernavour of Shennai. Because of tsunami safety considerations the semi permanent houses were constructed inland and at great distance from the coast where most people worked.

In official meetings with government officials, NGOs pointed out the difficulties of the affected people by stating that over a period of 10 months, they were forced to return to their original place even though it was nearer to the sea (The Hindu, 9/8/2005). Malathi, a 36-year old woman who lost her husband and children to the tsunami stated that the semi-permanent houses that were hurriedly constructed were not sufficed to live because there was no water, drainage and air circulation. The issue was covered by the media in order to bring the problems to the attention of the government, of the NGPs and of the general public, so that the steps could be taken to reconstruct better houses.

Another problem was the location of schools which were spread across Kasimedu, Kalmandapam, Thiruvottiyur and Toll Gate, quite far from Ernavour. NGOs sponsored daily bus transportation for about 100 children to school (The New Indian Express, 07/06/2007).

Kanaga, a 17-year old commented that they received permanent houses three years after the tsunami and that houses were built small in one particular area, which characterized them as the tsunami affected people in the community. The government allotted 991 permanent houses in Tondiarpet in Chennai for tsunami victims - conveniently located near hospitals, government schools; a police station, the railway station, a bus stand and a market. Mainly this issue was covered as news by television stations and newspapers.

In summary, the tsunami had created chaos and confusion in the minds of the people in the region that was struck. Many of the women had lost husband, children, parents, brothers and sisters. Since they had lost the people on whom they were dependent, they now had to take care of raising single handedly their children and planning for the future. Women were forced to work in all kinds of trades to make ends meet. Some began selling fish, flowers, vegetables, fruits or worked as house maids. Others did cleaning work at hospitals, worked as masons, managed marriage halls, did construction work, worked for export companies or ice companies. Still others began work in animal husbandry or as clerks in all kinds of shops selling a variety of things.

Community teachers worked for a non-government organization “Karunalaya”, a social service organization, working with slum children. At Tondaiyarpur, the organization performed welfare work for the people that had been affected by the tsunami. Also the teachers helped the media people to assess accurately the status of the affected women – work for which they were commended by the government of Tamilnadu. Community teachers working for NGOs stated that, due to lack of proper job opportunities, nearly ten women were forced to become sex workers and others became gamblers or engaged in illegal activities. Such behaviors created stresses among the affected women in the community. Community teachers stated that since the tsunami of 2004, there was an increase in teen marriages, in alcohol use and in women going into the sex trade.

The issue of child marriage after the tsunami became the to focus of media only in August 2007 (The Hindu, 2007). According to Rita, a community teacher from Karunalaya, the girls were married off early because their parents were without work and believed that their teenage daughters were “safer” in an early marriage, rather than in staying alone at home. According to teachers such incidents rose after the sudden 2004 disaster because the communities were experiencing a high degree of insecurity. Mental depression led numerous women into an increase use of alcohol. Some women were forced to sell their kidneys to pay for the high debt or to make a living. This issue was also given attention and discussed by the various media. Ms. Thilakavathy, a woman in her mid-30s with three young children was quoted as having her kidney sold for Rs.40,000. After her photo was published in newspapers and television she got some amount of money from an NGO. That amount was helpful to keep a shop of her own and to continue to support her children. Apparently the media, by focusing on such predicaments, was able to help suffering people and get them help.

The present in-depth study determined that many girls younger than 18, were forced to drop out of high school and get married. Others got menial jobs for a short period, then got married. The life that they started at such young age created many economical and psychological problems in their families. These issues were also covered by various newspapers and television channels and were brought to the attention of communities, suggesting solution for the affected women. Based on such reporting by the media, the government and the NGOs acted more effectively in instituting changes for post-disaster rehabilitation. Similarly, by repeated media commentary about the predicaments of the women affected by the tsunami, the government of Tamilnadu undertook necessary steps to provide housing for suffering families (The Hindu, 09.08.2005).

The above study represents only a qualitative analysis of the role the media played in improving the status of tsunami affected women through rehabilitation. Both the print and the electronic media played a major role in communicating significant information to government officials to the women impacted by the 2004 tsunami disaster and to the general public.

#### **4.11. Results**

According to the findings the following results were obtained.

1. With regard to the mass media preference, more than half of the women affected by the tsunami opted for television because it is the most powerful medium in communicating information for tsunami disaster rehabilitation.
2. The news features in television was most helpful. Nearly 83% of the responders to the survey stated that the facts and announcements on availability of resources helped them track some emergency information about the tsunami and about the rehabilitation problems.
3. From the analysis it was determined that early marriage for women (under age 18) increased after the tsunami and that coverage by the media brought attention to welfare committees and to the government to proscribe such early marriages.
4. The violence against women and the sexual harassments they suffered after tsunami was reported by the media, but the issues were not adequately focused to help resolve them.
5. Teen marriages, prostitution and alcohol use among women increased in north Chennai since the tsunami of 2004 and such problems have been widely publicized by various print media.
6. Problems, like poor hygiene and sanitation due to insufficient facilities, were pointed out by media to create awareness on needed improvements on public health.
7. Media presentations helped to educate the affected women about the tsunami risk factors and on the need for improved awareness and compliance to tsunami warnings.
8. The television and the print media reported on scientific and technical information about tsunamis, on post-disaster rehabilitation and on the need to find solutions that would benefit the general public as well as the women who had been adversely affected.
9. Present information about the impact of tsunamis and the safety of buildings and of areas have not yet been properly addressed. Currently available tsunami inundation maps are not appropriate for code or guideline applications. While rebuilding Ennore, the need for taking tsunami-related precautions must be emphasized and promoted by the media.
10. There is lack of livelihoods opportunities for women in the Ennore region in fisheries related

occupations and agricultural reclamation of saline lands. The media can play a vital role in motivating the affected women in the region to receive training in new skills that will help them improve their livelihood – and also bring to the attention of the government this need to provide training.

## **5. CONCLUSIONS**

During and after the 2004 tsunami disaster, the media provided support to the affected people and contributed vital information for disaster relief and amelioration. Before and especially after the disaster, the media's role and responsibilities expanded in many and various ways in helping women by communicating to them essential information pertaining to the tsunami hazard. Also, by providing good coverage of issues and of specific problems, the mainstream media influenced government and non-governmental organizations to act promptly to help improve the economic status of women that had been victimized by the tsunami. As a result of media help and financial government support these women were able to cope with the hardships, improve their lives, enjoy closer family relationships and a higher degree of gender freedom. Thus, the mainstream media played a significant role in this process. However, in spite of such positive developments, there is still room for improvements that policy-makers must act upon to improve further the conditions for groups of women victimized by the tsunami disaster. For example, the creation of the fast tracked Self Help Groups (SHGs) and the manipulation in membership in different groups and their accommodation in temporary shelters must be better addressed and acted upon. The media revealed that such shortcomings still exist but so there is hope that policy-level changes will be made to correct the inequities and improve conditions for the victimized women.

In conclusion the media - with its reach and power - played a very important role in improving the life styles of affected women after the tsunami. However, the progress in media communications should not be limited to disaster periods only but should be expanded to help improve preparedness for future events that may occur. Sustainable society development with emphasis on safety from disasters, should be an extensive and substantial process that needs to be continuously supported by the mainstream media.

### **5.1. Suggestions**

1. The media should report on women's mental health - which is an essential factor for better livelihood.
2. Protection issues related to women – particularly the younger ones - should be given special attention. Perspectives and opinions of women and of their support networks need to be given greater visibility by the media in broadcasts related to national strategies for relief and reconstruction.
3. Issues pertaining to food security, health care and the needs of women and children must be addressed adequately by the media.

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