

## Community Participation in Tsunami Housing Rehabilitation Project in Kerala, India

K. M. Muhammed Anil<sup>1</sup> and T. Sundara Raj<sup>2</sup>

**Abstract:** *Though Kerala coast was considered as a safe zone as far as Tsunami hazards are concerned, the impacts of the Tsunami in 2004 were felt all along the coast of Kerala. The Tsunami caused deaths, damages, injuries and also made thousands of people homeless. A total of 2.8 lakhs persons were evacuated and accommodated in 290 relief camps across the various coastal regions. Fishermen communities were the most affected segment. The focus of this article is the people's participation in Housing Tsunami Rehabilitation Programme implemented for the victims of Asian Tsunami in 2004 at Alappadu Panchayath of Kollam district, Kerala. In post Tsunami phase housing reconstruction was one of the big challenges. Therefore, the Government devised a project for reconstruction using both own fund and with support of the civil society organisations. Thus affected people were rehabilitated in new places by constructing the houses both by the Non-Governmental Organisations [NGOs] and Government Organisations [GOs] in a phased manner. This study is intended to explore the participation of the stakeholders and its impact on that housing rehabilitation project. The article based on the field level study is analysing the interplay between people's participation and Social capital in a wider but specific frame of various related components.*

**Keywords:** Tsunami, People's participation, Instrumental organisations

### Introduction

This article is based on the field level study conducted in Alappadu Panchayath of Kollam District of Kerala State where the Asian Tsunami hit hard in 2004. That devastating Tsunami occurred due to an earthquake in the Indian Ocean in December 2004 that destroyed communities, family networks, homes and livelihoods of coastal people in the area. The post-tsunami Housing rehabilitation strategy implemented by the then government was to relocate and resettle the people to more safe areas by constructing individual houses or housing colonies. In the rehabilitation process, the Government agencies [Grama Panchayath, Public Works Department] and Non-Governmental organizations came into the scene to construct houses for the victims. The plots for reconstruction were earmarked in the same Panchayath and Adjacent Panchayath areas as colonies based on the availability of land. As part of the rehabilitation programme, 6030 houses were reconstructed in and around Alappadu Panchayath of which 1817 houses were constructed by the Government organizations through local self Government and 4213 by Non-governmental organizations.

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<sup>1</sup> Ph. D. Research Scholar, Department of Sociology, Periyar University, Tamil Nadu, India. E-mail: [ajsal2015@gmail.com](mailto:ajsal2015@gmail.com)

<sup>2</sup> Assistant Professor, Department of Sociology, Periyar University, Tamil Nadu, India.  
E-mail: [drsundararaj@periyaruniversity.ac.in](mailto:drsundararaj@periyaruniversity.ac.in)

Approach of agencies viz. NGOs and GOs were different in the rehabilitation mission. In Government agency's process the beneficiaries were entrusted with the approved plan, design of the house along with money in installments and various line departments monitored the construction activity. But the NGOs on the other hand, went along with the standards and norms as approved by the District administration but the construction works were given to agents/ private subcontractors without involving the stakeholder community. Many beneficiaries had no information about their property or house until handed it over to them. That is how in the same area for the same purpose among similar beneficiaries two set of organizations having different and distinct policies and mechanism worked together that too in the state where no precedence of any such disaster is a good learning experience in sociological point of view. Any rehabilitation process though after a dreadful disaster is an opportunity to grow and develop. For which a lot of things has to harmoniously work together to bring a desired productive result. This field level study is conducted 10-12 years after the implementation of housing rehabilitation project. Learning from this process of housing rehabilitation will help to develop a proper strategy for sustainable resettlement of disaster-affected community especially in the context of Kerala.

### **Community Participation in Tsunami Rehabilitation Context**

Beneficiary participation is very much emphasized and encouraged, with many academics agreeing that it is a critical component for the success of any project. It is therefore said that the success of projects depends largely on the success of local community participation. Community participation refers to the involvement of people in solving their own problems or to modify their socio-economic conditions. Mostly participation comes in setting goals, evaluating, preparing and also implementing plans and programs. It has been found that those who have experienced losses due to Tsunami 2004 are more interested to participate in community activities and respond to the natural socio-economic living. Living in a community with a higher proportion of inherited social capital, like fishermen community, increases the probability of engaging in community activities during and after a disaster. Individuals who participate in village-based activities are more likely to undertake community activities compared to those not engaging in similar activities. This implies that encouraging participation in community activities can have positive externalities in disaster rehabilitation.

The thrust of participation of the beneficiaries is even globally understood and stressed. The United Nations (1970) defines participation as the collective action by the various strata of people or interest groups. UN viewed participation as a dynamic group process in which members of a group with an understanding about their strength and weakness contribute, share or are influenced by the mutual sharing of ideas and activities towards problem-solving or decision-making (Banki, 1981). The core focus of community participation is interplay of 'voices and choices' of the individual and collectives. The same will influence growth and development of human, organizational and management capacity to solve problems as they arise in order to sustain the improvements made over the time (Sastry, 2001). Community participation encourages people to work in peer network where people feel a sense of togetherness of community and recognize the

benefits of their involvement. The effectiveness of that participation starts with justifiability of beneficiary selection. A project's success is generally influenced by the knowledge, attitude, and practice of the staff associating with its implementation. This key finding will help the implementing organizations in reviewing their current plans and policies, and is useful in monitoring and evaluating projects. This will also be helpful to redefine the social work education curriculum if required, inculcating the spirit of beneficiary participation.

This study, therefore, contributes to a greater understanding of beneficiary participation in project implementation. It will give guidelines to the local community participation advocates to execute, evaluate and monitor local community participation more effectively with greater understanding. Stakeholders may benefit from this thesis in terms of gaining knowledge in establishing, operating and evaluating successful projects. Developing the research and knowledge base is essential for the social scientists to face the uncertainties of future and complexity of social issues. The present study in a constrained sense may be helpful to professional Social Work and Sociology to fill the theoretical gaps in the operationalisation of a people-centred programme, especially in disaster rehabilitation. It may also be helpful for the development practitioners to plan policies and in its execution.

### **Research Design**

The main objective of the study is to understand and analyze the impact of community participation in the Tsunami Housing Rehabilitation project. To achieve this objective various related variables like Socio-economic status of the beneficiary, justifiability of beneficiary selection, competency of the instrumental organisations [NGOs and GOs] and the project execution were examined. To arrive the conclusion, these variables were tested for its correlation with the most vital focus of the study i.e. Peoples participation. The study was concluded with the result of correlation between people's participation and social capital in the Tsunami housing rehabilitation project.

Basic theory taken for this study is citizen participation theory that defines individuals' opportunity to influence decisions and development. This theory incorporates Arnstein's "ladder of citizen participation" that well defining the comparative perception of the 'makers' of the project and anticipated perceptions of citizen participants. N.J Habraken's participation theory is also considered in the study to examine two different version of involvement of beneficiaries. Murray. G. Ross's definition of community organization as a sequential process is also quite useful both theoretically and practically to define participation. Logical conclusion method of famous researcher John Stuart mill that if two or more instances of the phenomenon under investigation have only one circumstance in common, the circumstance in which all the instances will agree, is the cause or effect of given phenomenon is taken for arriving at a logical conclusion viz.  $A+B+C = Z$ ,  $A+B+ \text{Non } C = -Z$  where, C represents the participation component and Z is the better project outcome and Non C represents the non - participation of the beneficiaries and negative Z is poor result. Thus C and Z are strongly correlated positively.

The sample for the study is taken from the people rehabilitated in and around Alappadu Panchayath in different Tsunami Colonies. As a worst affected Panchayath in the state 6030 houses were reconstructed in 16 wards of Alappadu and Nearby Panchayath. Stratified Random Sampling method is used for the study. Two strata were formed one on the basis of wards or colonies and other on the basis of agency constructed the houses viz. GO or NGO. The sample is taken with the confidence level of 95% and confidence interval of 4%. The level of significance of the sample size is 5% and its Z value is 1.96. Based on this statistical method the total size of the sample is fixed as 632. The sample was randomly chosen from the complete list of beneficiaries using Microsoft Excel software programme.

Sl. No	Particulars	Total population	GO	NGO	Sample size	
					GO	NGO
1	Housing Scheme	6030	1817	4213	195	437

Data collection was done using interview schedule, FGDs, interview guide, observations and transacts walks after a pilot study and pre-test. The analysis was done using SPSS [Statistical Package for Social Science -Version 21]. The statistical analysis techniques such as descriptive methods like Mean and Standard Deviation, Inferential statistics-Paired t-tests were also applied for the analysis of data. ANOVA test, Tukey simultaneous comparison for post hoc analysis, Discriminant analysis, Linear regression analysis, Karl Pearson coefficient correlation analysis, Uni-variate general linear model analysis were also used for arriving at statistical conclusions.

#### **FINDINGS OF THE STUDY**

This study aims to understand the present socio-economic status of the Tsunami victims those who were rehabilitated in single houses, and clusters in different areas of the Alappadu Panchayath and adjacent Panchayath. The communal heterogeneity in the rehabilitation process looks very positive especially in an era of volatile religious polarization. On a closer look at the employment pattern a commendable change is visible after the Tsunami. More than two third of the rehabilitated fishermen left from fishing after Tsunami.

The impact of the Peoples Participation was analyzed statistically through single factor ANOVA test and Ranking method. It has been found that those who participated or involved in the process truly build-up the social relations and developed a unique perspective in many aspects. The study has shown that those who participated in the process could recover sustainably from the tremors of disaster. The beneficiaries involved in the process have a strong sense of ownership and satisfaction in their day-to-day living. Peoples Participation has a high positive correlation of 73.5 percent on the justifiability of the selection process, 55 percent on the competency of the instrumental organization and 66.9 percent on the execution of the project. Competency of the instrumental has strong positive correlation of 53 percent on the justifiability of the beneficiary selection. The result shows that people's participation is most vital part of the project among all the components as effects beneficiary selection, institutional competency, and execution. The Durban

Watson test is 1.604 showed low positive overall correlations among the variables. The OLS equation is being explained below

**Execution of the project = -632 + Justifiability of selection process [0.225] + Instrumental organization [0.23] + People's participation [0.626].**

In this study, it is clearly shown that, the more educated people made use of the different components of the project effectively. A clear edge for the educated people in acquaintance, understanding, and assessment is found in the study. Same positive impact of education is found in behavioural, attitudinal and social responses of the beneficiaries.

In the correlation matrix of impact of the different components of the project implementation following findings are note worthy.

**A] Justifiability of the beneficiary selection process has a very high positive correlation of 73.5 percent with people participation of the project and having a mean value of 2.5 in the statistical analysis. This means 1-degree standard deviation change in people's participation corresponding standard deviation change would be 73.5 percent on the justifiability of the selection process and vice versa.**

**B] The competency of the instrumental organisation too has a very high positive correlation of 55.5 percent with people's participation of the project and having a mean value of 3 in statistical analysis. This means 1-degree standard deviation change in people's participation corresponding standard deviation change would be 55.5 percent on the competency of the instrumental organisation and vice versa.**

**C] The execution of the project has a very high positive correlation of about 66.9 percent with people's participation of the project and having a mean value of 2.8, ranked three among four components in statistical analysis. This means 1-degree standard deviation change in people's participation corresponding standard deviation change would be of 66.9 percent on the execution of the project and vice versa.**

Therefore, in any project implementation, justifiability of beneficiary selection, the core competency of the instrumental organisations and execution of the project both in the policy and practice level is very vital for the beneficiary participation. It is clearly visible in the study that the government organization set an appreciable benchmark status in the implementation by setting standards. One of the major strategic differences between the GOs and NGOs was found to be the involvement and participation of the stakeholders.

Finally, the social capital output of both the beneficiaries of Government and the Non-Governmental organization was analyzed. In the analysis of 16 related variables the mean value of GO [2.90] was found well ahead than NGOs [2.31]. The regression equation for social capital is as given below

### **Social capital of beneficiaries of NGO = 0.4240+ Social Capital of Beneficiaries of Government Organization [0.7724]**

Multiple regression analysis was performed to predict the dependent variable execution of the project. Accordingly, the independent variables selected are people's participation, competency of the instrumental organization and justifiability of the selection process. To test the model fit ANOVA test was performed. ANOVAs value is 329.27,  $P = 0.000 [P < 5\%]$ , and the model is found fit. This implies the fact that 3 independent variables can be used to predict the dependent variable. The regression value of the model summary is 61.1 percent. This is heartening for the present model with help of independent variable; the dependent variable can be predicted 61.1% to be true. The Durban Watson test was 1.604-showed positive overall correlation among the variables. The regression equation is explained below

**Execution of the project = -632+ Justifiability of selection process [0.225] +Instrumental organization [0.23] +People's participation [0.626].**

The individual effect of an independent variable is also analyzed with the help of t-test. Accordingly, the whole p values were statistically significant. This showed the fact that the individual independent variables can also be used to predict the dependent variable execution of the project. The beta coefficient is high for people participation, which is calculated as 0.522. Hence the effect of people's participation is much higher than the other two variables to predict the execution of the project. It is also clearly found in the study that the social capital having desired benefits will increase with the increased level of community participation. The same desired benefit was found visible in the qualitative and quantitative outcome of the Tsunami Rehabilitation Housing Project.

### **Discussion**

This study is a first step in measuring success for local community participation and disaster rehabilitation, in particular, Alappadu Tsunami Housing Rehabilitation cases. Using the results of this study, the findings should be able to facilitate further research. The researcher encourages the practical application of the indicators that have been developed from this thesis. It is envisioned that the work from this thesis can be put to use not only in assessing the performance of local community participation in Housing scheme alone but developing specific indicators in any development projects related with various other components in project implementation. The performance of a project implementing agency and local community participation processes are quite critical to any disaster rebuilding process, or any activity in any development segment.

The present research study analyzed different aspects of community participation implemented to accomplish a basic need of the community through two unique instrumental organizations. The study is unique in the sense that the way in which a society survived a massive disaster especially in a state with

people having high aspiration and no precedence of disaster. The development researchers always highlighted the rigidity of the government system and the flexibility of non-governmental initiatives. But the study revealed the facts of management tactics and its output gained by the government organizations through a consorted effort involving beneficiaries. The study also unearthed the way in which justifiability of the selection process, the core strength of instrumental organizations, involvement beneficiaries magnanimously influenced the viability and desired output. A basic understanding and pooling of the existing social capital are proved in the study with its multiplying and complementary impact between and within the participation and social capital. The strategic involvement of beneficiaries in the project implementation successfully and positively influenced both the qualitative and quantitative result of the project. The study well proved the fact that truly social capital must be considered at par with financial capital to evolve a successful model in development.

### **Recommendations**

- A comprehensive policy with distinct guidelines specifically in Disaster management for GO-NGO partnership is highly essential.
- Any external agency should be invariably linked with similar nodal agencies of the State government and there should have a common platform to share best practices and lessons learned from the initial stages of implementation. The state-specific and local-specific resources must be considered in the execution process.
- Transitional and long-term changes in cultural, occupational and living needs must be considered in any rehabilitation program.
- Beneficiary participation must be treated as the key factor of any community based disaster rehabilitation project, with a clear conviction of available social capital and in no way, the same should not be compromised for any other reasons like Budget, timeliness etc
- The instrumental organization must be made competitive, a task force of personnel in every department must be trained, and inclusiveness should be ensured for effective beneficiary participation.

### **Concluding Remarks**

It is found in this article that it is not at all important that whether the agency is NGO or GO but the focal crucial point behind the success of any development project is the involvement of its stakeholder. It is clearly visible in the analysis of data that the government organization, unlikely, set an appreciable benchmark in the implementation mainly by mobilising and involving the stakeholders Tsunami housing rehabilitation project. Viability parameters clearly had shown the impact of people's participation in

result level. Various components of the Tsunami housing rehabilitation project like beneficiary selection process, competency of the project implementing agency, its execution in tune with people's participation has been analysed and it is clearly found that the Peoples Participation has a high positive correlation on justifiability of the selection process, competency of the instrumental organization and in the execution of the project. In result level also it has been found that those who participated or involved more in the process truly build-up the social relations and developed a unique perspective in many aspects. The study showed that those who participated in the process could recover sustainably from the tremors of disaster. The social capital of the individuals rehabilitated in the project is also examined it is found that the social capital base of the beneficiaries is much higher than that of NGO beneficiaries. In sum and essence result showed that people's participation is most vital part of the project for successful implementation and sustainable outcome.

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### **Web link**

<http://www.ifrc.org/en/what-we-do/disaster-management/about-disaster-management/>

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