

# ASSESSMENT OF MULTI-PURPOSE CYCLONE SHELTERS CONSTRUCTED BY OSDMA AND IRCS IN GANJAM DISTRICT OF ODISHA



*Submitted to:*

**Indo Global Social Service Society (IGSSS),  
Bhubaneswar, ODISHA**



*Prepared by:*

**SCHOOL OF DISASTER MANAGEMENT  
CENTURION UNIVERSITY OF TECHNOLOGY & MANAGEMENT  
BHUBANESWAR, ODISHA**

# CONTENTS

Acknowledgement (1 page).....	
Abbreviations and acronyms (0.5 to 1 page) .....	3
Executive Summary (1 page, maximum 2).....	
Chapter-1: Introduction and Background (2 page, maximum 3).....	4
Chapter-2: Approach and Methodology (2 page, maximum 3).....	5
2.1 Scope of the study.....	5
2.2 Objectives.....	5
2.3 Approach and methodology.....	5
2.4 Study participants' (respondents).....	8
background and profile (types of participants, profile)	
2.5 Limitations in the exercise.....	9
Chapter-3: Current status of the IGSSS shelters as per the scope of the study....	10
3.1 Finding from quantitative study.....	10
3.2 Finding from qualitative study.....	27
3.3 Conclusion .....	39
3.4 Recommendation for strengthening .....	40
Case studies .....	42
<b>Chapter-4: Comparative analysis with Red Cross and OSDMA shelters in terms of strength and learning)</b>	
<b>Annexures</b>	
Study tools.....	48
Photographs	
Assessment of multi-purpose cyclone shelters constructed by OSDMA and IRCS in Ganjam district of Odisha.....	1

## Acknowledgement

Impact Assessment study on the multipurpose cyclone shelters in Ganjam district has been the exciting and enlightening experiences for the team of School of Disaster Management. The study was first of its kind as far as structural and non structural assessment of the MPCs Ganjam. Being the leader of the School of Disaster Management, study of this kind enlightened with the numerous structural, non structural issues and challenges, inputs, suggestion and ideas of the MPCs management body and concern of the block and district administration for building, strengthening and functioning of the structures and non structural elements. These MPCs have been the life line for thousands of people in and around the MPCs especially in pre, during and post disaster situation. The study was mainly focused on three aspects, **one Physical status and functionality of the MPCs. Second to know the functionality of the MPCs management body and to know the status and condition all the life saving tools, equipments and materials provided to each of the MPCs Ganjam and third suggest the road map with activities and strategies for functionality and sustainability of the MPCs in Ganjam and Chatrapur blocks of Ganjam district.**

Major findings exerted by the different stakeholders like MPCs management committee, community members, PRI functionaries, BDOs and district emergency officer are well documented in this piece of work document for reference and perusal of a common man. Recommendation and plan of action opined by the different stakeholders for easy and effective functionality of the MPCs and its sustainability are well placed and shared with the same community members for confirmation and for future course of action.

Before we release this piece of document in the public domain, I acknowledge the immense work done by Mr. Jaya Krishna Behera the Assistant Professor, DM – CUTM who led this study from beginning to till the end. His works on designing methodologies, process, strategies, monitoring interaction with various stakeholders with the specific purpose are commendable as this pieces of hard works are well reflected in this final document.

I also acknowledge the team of professionals like supervisors, communication expert, data analyst and other contributors whose toiling work day in and day out to complete the task within the shortest time was well appreciated.

I thank IGSSS who with trust confident entrusted SDM to work on this piece of work. CUTM and more specifically Prof. Supriya Pattnaik , DVC, CUTM allowed me and guided us as and when we required, without her support and cooperation SDM would not have been able to work on this issue.

All the community stakeholders, MPCs management body, block and district administration extended their bit of support and cooperation timely and that timely support made us to complete this assignment on time.

A.Suchitra  
Director, SDM - CUTM

## Abbreviations and Acronyms

BCC	:	Behavioural Change Communication
BDO	:	Block Development Officer
CS	:	Cyclone Shelter
CUTM	:	Centurion University
FGD	:	Focus Group Discussion
GPEO	:	Gram Panchayat Extension Officer
GoO	:	Govt. of Odisha
IGSSS	:	Indo Global Social Service Society
IEC	:	Information, Education and Communication
MPCS	:	Multi-Purpose Cyclone Shelter

# CHAPTER 1

## INTRODUCTION & BACKGROUND

### Introduction

The state of Odisha as a whole, and more particularly, Ganjam district in specific has been prone to series of disasters experienced over the past decades. The super cyclone in the year 1999, Phailin and Hoodhood have really caused extensive damage to lives and property of innocent industrious yet vulnerable mass inhabiting in the remote and risky areas. The victims of disaster were left homeless and livelihood activities got ruined like anything. One can notice the rehabilitation and sustainability phase still in progress or in requisition utilizing various special schemes of govt. as major means. In this context, the role played by OSDMA is significantly high and crucial which undoubtedly aims at making specific community disaster proof and trauma free. The construction of cyclone shelter and other supportive activities have really geared up the enthusiasm of community in order to fight against disaster with all might. Simultaneously, some selected like-minded agencies also have kept on their strategic initiatives to enhance the coping mechanism of community with a series of capacity building, mobilization, motivation and coordinating action for optimizing the voluntary participation, ownership and involvement of various sections of rural and semi-urban folks. This study largely focuses on getting an overview of the extent of accomplishment and issues associated in fostering the drive of disaster preparedness pursued in the community. It is also expected to reaffirm a need based and conducive approach to carry forward the initiatives till the ultimate intention of making people self driven in the light of disaster becomes a reality in true sense.

As a sample piece of study area, Khallikote block has been selected for and indepth situational analysis on the status of multipurpose cyclone shelter constructed by OSDMA and the impact of supportive measures in terms of rescue equipment, mock drills and capacity building measures. As geographical features, it is situated in the Chhatrapur Sub-Division of the district and is 4 km. from the National Highway No.5 on the road that leads to Asika on its western side near Rambha. Previously it was the seat of Khallikote Zamindari and constituted the northern boundary of the Chennai presidency. The place is well linked with major towns of the district as well as the State capital. The place is served by a railway station of the East Coast Railways. There is a big Jagannath temple built by the ex-rulers of Khallikote estate and Ratha Yatra (Car Festival) of Lord Balabhadra, Jagannath and Subhadra is celebrated here with much joy and pomp. It covers an area of 28.49 sq.km.

**Assessment of multi-purpose cyclone shelters constructed by OSDMA and IRCS in Ganjam district of Odisha.....4**

## **CHAPTER-2**

### **APPROACH AND METHODOLOGY**

#### **2.1 Scope of the study**

The study on assessment of MPCS in Khallikote Block of Ganjam district has been carried out having a definite scope to assert the extent of preparedness of the community and opportunities ahead of time which can be more effectively exploited to achieve the core objectives of preparatory measures put forth by OSDMA and like-minded agencies. Among other things, it is projected to bring down the depth of trauma prevailing among the coastal dwellers and built upon more region specific openings that could make the community more resilient to possible disaster. The study also aims to highlight the strength and pro-activeness of community to act as major stakeholders of change. In this process, they can be shaped into potential resource persons to capacitated the community elsewhere and finally bring down the possible devastating scenario of disaster drastically. Since coordination maintained more effectively serves as a pre-requisite of preparedness drive, the study too looks forward assessing the trend and coming up with fruitful endeavours that could in the long run help the community realize the task with a more rights based approach.

#### **2.2 Objectives of the study**

- To assess the conditions of the MPCS (infrastructures and equipment)
- To assess the maintenance of the MPCS (Infrastructures and equipment)
- To assess the community engagement in management and maintenance of the MPCS
- To assess the usage of the MPCS from inclusion point of view
- To assess the usage of cyclone shelter during the crisis and during the peace time
- To find out appropriate measures for effective management and maintenance of multipurpose cyclone shelters

#### **2.3 Approach & Methodology**

A holistic and field based approach was followed in order to assess the current status of the Multi -purpose cyclone centres constructed in Khallikote Block of Ganjam district by OSDMA. In this sphere, the research team members adopted interactive process of data collection

both qualitative and quantitative where in the felt views of stakeholders in the community was given utmost importance. The approach also stressed upon gather perceptions on knowledge, attitude and practices so far as functioning of cyclone centre are concerned. Since disaster on any sort of severe calamity might be of devastating nature with high velocity, it was endeavoured to figure out how prepared are the community members collectively and families as nuclear ones so as to put up a strategic demonstration of saving lives and properties. In fact, it was one of the core intention of establishing cyclone centres in the respective places as it is reported now. The extent of participation and adherence to the basic norms and principles of effective management of cyclone centres was also deeply assessed through a series of community led interfaces. A gender inclusive approach was also taken care wherein the indigenous women folks also found convenience to narrate their own perception. Moreover, the introduction and usability of Disaster Management Plan was largely focussed upon as to what extent it is being guided, monitored and reviewed by the concerned administrative personnel and PRI members.

A comparative and analytical means of assessment was also followed to assert how far the cyclone centres in Khallikote block are better off as in the case of the same functioning in adjacent Chhatrapur block which itself is the district headquarters of Ganjam district. The core characteristics of cyclone centres treated as pre requisites to term as model ones was also traced out during the study so that this could be replicated during the future course of action as it is intended to ensure all cyclone centres to be entirely assets for people as a whole in need.

The study has been well conducted largely with the whole-hearted support and coordination of Indo-Global Social Service Society (IGSSS) both at the state level and in the operational areas. It was largely by dint of their effective management of field data collection process which made extensive ways for voluntary participation of community members to record vital views of current status and preferred suggestions as mode of improvement mechanism. All these could be accomplished within the given time frame.

### **Methodology**

The specific assessment was equipped with sets of processional tools which were finalized after a series of review, field testing and references. Several intensive preparatory meetings were held in the corporate office of CUTM to shape the tools with high applicability in the field. In this context, the draft questionnaires were substantiated by senior personnel of

IGSSS and CUTM. Furthermore, the research team members contributed their inputs as they are well versed with the region having extensive field level experiences.

Structured quantitative questionnaire was developed to collect household level perception regarding the functioning of CS. The respondents were expected to be in a relax situation while being the part of interview process which was quite feasible with the questionnaire. Informed consent was obtained from the respondents prior to the commencement of actual interview.

As regards to qualitative assessment, appropriate tools for conducting Focus Group Discussion was introduced with the main objective of revealing open ended views of the participants. Various aspects of cyclone shelter, such as physical, technical, managerial and abstract etc. were put forth for generating collective responses which got validated in the venue itself.

It was also equipped with other aspects like local issues, innovativeness, adaptability, ownership, etc. that helped immensely to revive the expectation of community in accordance to the stated objectives of the multi-purpose cyclone centres.

Tools for conducting in-depth interviews with key functionaries at block and district level indicating authenticity of programme were also put into action for collecting critical inputs and feedback for amending future intervention with efficacy. In fact, these tools proved as eye opener in revealing certain administrative issues that could require support from multiple end to ultimately meet with the expectations from community as a whole in enhancing the coping mechanism in tune of disaster.

The field researchers also were instructed to prepare a precise field note along with their personal observation on each scenario which usually stay unreported.

Additionally, four numbers of MPCs were assessed with the given tools in the adjacent Chhatrapur block towards later part of the field work. This was aimed at documenting points of differences in positive sense so far as functioning of cyclone centres in benefitting the community at the time of disaster is concerned. The research team have been efficient enough to probe in such a way that certain key points adopted by stakeholders really worked well to upkeep the created infrastructure and maintained high degree of ownership and participation for making the MPCs as means of insuring lives and property in the toughest situation of life.



A number of photographs were captured to portray actions and assets in the community which really could go on speaking a lot on the extent of preparedness, vigilance and effective management of stakeholders & office bearers in the light of review, analysis, planning and vivid documentation as and when required.

The senior team members from IGSSS and CUTM frequently reviewed the progress in the field, district and state level. Their critical inputs really proved vital to streamline and accumulate desired information from the field as envisaged with the stated objectives of the study.

Information and sheets available from secondary sources were also thoroughly observed by the researchers at different levels in order to ascertain familiarity, involvement and acquaintance of stakeholders in regular affairs of the MPCS.

Last but not least, a Whatsapp group was created among the research team members as a whole. On day to day basis, this was of great help to not only get updated with the progress of the field work but also greatly helped to sort out field issues and confusions from time to time without any delay.

## **2.4 Study Participants**

The sphere of assessment of MPCS in Khallikote and adjacent Ganjam and Chhatrapur Block centered around an inclusive approach. This included the community as a whole who have been witnessing the transformation in the mindset regarding the knowledge, attitude and practices of perceiving the significance of MPCS. Primarily, the study focussed upon men and women in general and the office bearers of MPCS in particular to put forth issues and opportunities in the light of possible disasters. These stakeholders have contributed extensively to the data collection process. In addition, the PRI members such as Sarpanch and Ward Member have also been taken confidence for sharing their valuable views on involvement in the affairs of CS and what really could be feasible to take the MPCS forward in winning the confidence of people and portraying the MPCS as model one in the days ahead. As an umbrella type approach, key functionaries at the district and block levels also

enriched the quality of findings during data collection with appropriate summing up and suggestive points of future intervention required in due juncture of time.

## **2.5 Limitation in the exercise**

The experience group of researchers put their best effort to wind up the study in an effective manner. Looking at the geographical vastness and convenience of the community people, lot of care and attention were given to obtain unbiased and realistic pattern of data for analytical purpose and appropriate usage thereafter. However, the time was fairly limited to accomplish the task meticulously. More such subjective aspects of MPCs still need to be looked into for an authentic outcome as a means of revamping strategic intervention.

The documentary and recordal review and assessment was accomplished to a limited extent due to non availability and possession at different levels as factors. Otherwise the study focuses more on verbal way of sharing about the MPCs.

It would have been more advantageous for the researchers to have availed the scope to interact with key functionaries like Tahasildar at the block level and District Emergency Officer at district level who are major stakeholder to guarantee efficacy of the MPCs. Similarly, the grassroots level functionaries like ANM or AWW have key roles to play in mobilizing women folks to ensure participation and involvement of women in different aspects from time to time.

The supply of rescue equipment should have been ensured earlier so that impact assessment could be more peoples centric. In the same tune, financial transaction and opening of bank account jointly in the name of Secretary and President should have been ensure earlier so that impacts relating to added transparency and accountability of stakeholders could have been accumulated extensively to fortify the outcome of the study.

## CHAPTER 3

### FINDINGS FROM QUANTITATIVE STUDY

#### **Introduction:**

Collection of quantitative data using the structured questionnaire was a major part of the assessment of MPCS in Khallikote block. One to one interview was conducted at household level in villages around MPCS in order to obtain person centered responses pertaining to the impact of cyclone shelter. In this context about 200 household representatives were selected ranging from different age group and occupational status. The data collection process also concentrated on the village where cyclone shelter stands as well as the village which is quite at a distance from MPCS yet is tagged for sheltering people at the time of disaster. The whole purpose was to analyse variation in views as regards access and usage of CS. As many as 10 households per village were covered making the total sample size. Mixed respondents were chosen for interview focussing more often women and those persons who frequently come down to CS in respect of work for any other purposes.

A sample of 10% of the interview schedules were randomly rechecked in the field to authenticate the data collection process and responses obtained from household level. This indicated largely the quality assurance part of the study. Later on these data were enter and analysed using Statistical Package for Social Science (SPSS) software. The quantitative data analysis also has given scope to understand the variation between the status of 16 cyclone centres of Khallikote block in one hand and that of 4 cyclone centres from Ganjam and Chhatrapur blocks on the other.

Specific findings from the study are interpreted in reflection to the graphs and tables, in the following portions. It would be interesting to have a comparative analysis of qualitative and quantitative findings just to sum up the actual scenario prevalent in and around the MPCS.

**Age of the Respondents:** The table highlighted in the following depicts the age group of the respondents. It is revealed that about 39.5% of the respondents interviewed stand in the age group of 36 to 50 years. They are usually married shoulder the responsibilities of the maintenance of the family. Hence their perception about MPCS is considered to be important. The better is the reliance of MPCS in the community, the higher is the chances of people taking shelter in the venue during emergency hour. Similarly, about 26% of the constitute the age group of 25 to 35 years which itself too is the period of responsibility, high consciousness and commitment both to the self, family and

community. Actually, lot more things are expected from them by vulnerable groups in lieu of rescue, relief and rehabilitation at the time of emergency and beyond.

Age (In Years)	Control area		Operational area		Total	
	Number	%	Number	%	Number	%
15-24	2	5.0%	19	11.9%	21	10.5%
25-35	13	32.5%	39	24.4%	52	26.0%
36-50	16	40.0%	63	39.4%	79	39.5%
51-60	5	12.5%	20	12.5%	25	12.5%
>60	4	10.0%	19	11.9%	23	11.5%
<b>Total</b>	<b>40</b>		<b>160</b>		<b>200</b>	

**Marital Status:** The interview mainly covered the married persons to the extent of 84% while the rest 16% are unmarried. It can also be related that the availability of married persons was more actual at the time of field level data collection.

Marital Status	Control area		Operational area		Total	
	Number	%	Number	%	Number	%
Married	36	90.0%	132	82.5%	168	84.0%
Unmarried	4	10.0%	28	17.5%	32	16.0%
<b>Total</b>	<b>40</b>		<b>160</b>		<b>200</b>	

**Occupation :** As regards occupational parameters, it is revealed that about 51.5% of the respondents covered in the household level interview belong to primary sector of occupation. They mainly pursue agriculture, vegetable cultivation, and also working as agricultural labour. On the other hand about 13% of the respondents are categorized under tertiary sector ranging mainly from services in schools and other form of grassroots level institutions. Similarly about 32% of the respondents mainly covered in the interview noticeable pursue household work or studies. It can be also noted that such number of respondents are either housewives or students. In many occasion,

opinion of this group of respondents can be of great insight to understand the impact of MPCs in the community. Only a meagre proportion of the respondents (3.5%) are found to live on petty business and other form of selling products around villages.

Occupation	Control area		Operational area		Total	
Primary	22	55.0%	81	50.6%	103	51.5%
Secondary	1	2.5%	6	3.8%	7	3.5%
Tertiary	7	17.5%	19	11.9%	26	13.0%
HH work/Students	10	25.0%	54	33.8%	64	32.0%
<b>Total</b>	<b>40</b>		<b>160</b>		<b>200</b>	

**Awareness about CS:** There is optimum awareness among all respondents about the establishment CS in their village. It is because the respondents are indigenous inhabitant of those villages. They have witness the CS to come up right from micro planning till construction.

Occupation	Control area		Operational area		Total	
Aware	40	100.0%	160	100.0%	200	100%
<b>Total</b>	<b>40</b>		<b>160</b>		<b>200</b>	

**Location of the CS:** When asked about the location of the CS, as much as 47% mentioned that it is located inside the village. Similarly, about 19.5% mentioned that it is in the outskirts of the village. Only about 5% of the respondents viewed that it is located in another village. Such respondents are mainly from the distant village which is tagged for shelter at the time of disaster. About 28% mentioned that it is outside the village and they feel sometimes uncomfortable approaching the CS more frequently. As per the view of the PRI members, due to certain land acquisition issue, such CS is portrayed outside the village.

Location of the CS	Control area		Operational area		Total	
Within village	30	75.0%	64	40.0%	94	47.0%
At the fringe of the village	6	15.0%	33	20.6%	39	19.5%
Outside village (near)	4	10.0%	52	32.5%	56	28.0%
Outside village (another village)	0	0.0%	11	6.9%	11	5.5%
<b>Total</b>	<b>40</b>		<b>160</b>		<b>200</b>	

**Distance of CS from own home:** it was further asked to know about the actual distance of respondent's house to site of CS. About 62.5% of the respondents expressed with contentment that the CS is located within 200 meters from their own house which itself is a positive sign to assure that the disaster preparedness measures have been chalked out to be more effective. Similarly, about 27.5% of the respondents mentioned that they can find the CS accessible within a distance of 500 meters. This portion of population require strong support of change agents and rescue team to strengthen their confidence on the capacity and facility available at the CS for safety of lives and property.

How far is it from your house?	Control area		Operational area		Total	
Within 200 metre	28	70.0%	97	60.6%	125	62.5%
Between 201 mtr. and 500 mtr.	7	17.5%	48	30.0%	55	27.5%
Between 501mtr. and 1.00 km	5	12.5%	15	9.4%	20	10.0%
<b>Total</b>	<b>40</b>		<b>160</b>		<b>200</b>	

**Knowledge on accessibility to CS:** Unlike the awareness level, as much as 99.5% of the respondents mentioned that they are accustomed on how to get into the MPCS at the time of need. Since they are dwelling close to the CS, they seem to be fairly conversant on this aspect. However, reaching the CS largely implies to reach at the venue rather than in specific instances like getting into the toilet, kitchen room and rooms separately for men and women etc. According to the normal lifestyle, most of the day to day work is carried out with movement on foot. In that tune, almost 96% of them underlined that they too can reach the CS by walk. Very few, about 4% mentioned that bicycle could be good means of communication. It can be derived from the fact that most of the population living around the CS are marginally poor for whom better means of communication is still not within reach. In fact, these sections of people really find the CS as saviour of their lives during high time. There is urgency to focus on such group as preparatory measure for enhancing their coping mechanism and encourage them to lead lives free from mental and physical trauma.

Do you know how to get into there?	Control area		Operational area		Total	
Yes	40	100.0%	159	99.4%	199	99.5%
No	0	0.0%	1	.6%	1	.5%
<b>Total</b>	<b>40</b>		<b>160</b>		<b>200</b>	
<b>How will you go there?</b>	<b>Control area</b>		<b>Operational area</b>		<b>Total</b>	

On foot	38	95.0%	154	96.3%	192	96.0%
By cycle	2	5.0%	6	3.8%	8	4.0%
<b>Total</b>	<b>40</b>		<b>160</b>		<b>200</b>	

### How and when they can access to the CS anytime in the year

Furthermore, the respondents were made to answer as to how and when they can access to the CS anytime in the year. It was good to reveal that about 87% of the respondents find it more convenient to reach the CS. In fact, there is no such caste barrier in reaching the shelter. Only about 13% of the respondents mainly represent the distant villages or women folk having certain conditionality both physical and mental for which they express their reservation in the ability to reach the CS at any point of time. Out of those who really responded “No”, was further asked about the particular time they cannot reach CS conveniently. It was revealed that about 92% of the respondents who cited rainy season when it is difficult to reach at the CS. It can be due to a valid reason that since the CS are not usually connected with electricity or water supply; it is not quite safe for them to reach at shelter for any other purposes. They prefer accomplishing their work more at home or any common work shed nearer to their home.

<b>Do you think you can access to the cyclone shelter all year around?</b>	<b>Control area</b>		<b>Operational area</b>		<b>Total</b>	
Yes	29	72.5%	145	90.6%	174	87.0%
No	11	27.5%	15	9.4%	26	13.0%
<b>Total</b>	<b>40</b>		<b>160</b>		<b>200</b>	

<b>If your answer is no when do you think it is not accessible</b>	<b>Control area</b>		<b>Operational area</b>		<b>Total</b>	
Summer	0	0.0%	1	6.7%	1	3.8%
Rainy	11	100.0%	13	86.7%	24	92.3%
Winter	0	0.0%	1	6.7%	1	3.8%
<b>Total</b>	<b>11</b>		<b>15</b>		<b>26</b>	

**Reliance on CS as place of safety:** It is still encouraging to get assured that the CSs are places of safety as mentioned by the respondents covered under the study(88%). About 10% of the respondents who value their belongingness think seriously about the durability of the shelter would mention that they prefer their own houses as places of safety.

q9:Where would you go to make you and your family safe from its danger?	Control area		Operational area		Total	
	Own house	5	12.5%	15	9.4%	20
Friends or relatives home	0	0.0%	2	1.3%	2	1.0%
Cyclone shelter	35	87.5%	141	88.1%	176	88.0%
School cum cyclone shelter	0	0.0%	2	1.3%	2	1.0%
<b>Total</b>	<b>40</b>		<b>160</b>		<b>200</b>	

**Reasons for going there:** They were further to answer on the reasons for choosing CS as places of safety. About 93% mentioned that CSs are fairly durable. As multiple responses, about 56% cited that they can access more easily. Similarly, about 53% indicated that it is nearer to their houses. A lesser proportion (30%) expressed that the geographical location of CS is at a higher level which according to them is comparatively safer.

Reasons for going there	Control area		Operational area		Total	
	Strong Structure	40	100.0%	147	91.9%	187
Easily Accessible	31	77.5%	81	50.6%	112	56.0%
Near Proximity	26	65.0%	81	50.6%	107	53.5%
Higher than other place	15	37.5%	46	28.8%	61	30.5%
Don't Know	0	0.0%	1	.6%	1	0.5%

**Amenities available at CS:** It was tried to obtain available information with the respondents on the basic amenities available in the MPCs. It is important to mention that the CSs located in Khallikote Block mostly lack certain basic facilities due to poor maintenance and non supply of equipment and accessories. On the other hand, the 4 MPCs covered under the study in Ganjam and Chhatrapur block happened to have more of such materials at the shelter for which the respondents answered in a favourable manner. More than 35% of the respondents mentioned that water facility is connected to the CSs and generator set have been provided to CS for mitigating power shortage. About 9% of the respondents mentioned that mobile phone facilities is available with the office bearer to facilitate



communication with near and dear one. Other provisions such as rescue materials, sanitation kit, kitchen item, signal light, life jacket and functional toilet facilities are available as per the views of maximum 29% of the respondents that to more from the control area of the study. About half of the respondents (48%) could not answer specifically on the different amenities available in the CSs. There is need for intensifying IEC/BCC activities to make the beneficiaries vocal on approved provision of facilities available and what all the community people are expected to contribute as matching support to strengthen preparedness measures.

Amenities available at CS	Control area		Operational area		Total	
Water facility	14	35.0%	59	36.9%	73	36.5%
Food	0	0.0%	31	19.4%	31	15.5%
Emergency Power	20	50.0%	59	36.9%	79	39.5%
Phone	4	10.0%	14	8.8%	18	9.0%
Rescue Materials	9	22.5%	12	7.5%	21	10.5%
Sanitation Kit	22	55.0%	29	18.1%	51	25.5%
Kitchen Items	8	20.0%	30	18.8%	38	19.0%
Signal Light	3	7.5%	3	1.9%	6	3.0%
Life Jacket	0	0.0%	1	.6%	1	0.5%
Toilet facility	0	0.0%	13	8.1%	13	6.5%
Don't Know	16	40.0%	80	50.0%	96	48.0%
<b>Total</b>	<b>40</b>		<b>160</b>		<b>200</b>	

#### Awareness on Shelter Management Committee

The researcher tried to obtain information available with the respondents whether they know about the formation and functioning of Shelter Management Committee. It was also tried to figure out whether these committee are working for the betterment of CS and how. Accordingly it was revealed that as much as 62% of the respondents answered affirmatively about the committee in place where as the rest of the respondents are either not aware or could not expressed what really did they mean about the informal institution.

Do you know there is a shelter management committee?	Control area		Operational area		Total	
Yes	31	77.5%	93	58.1%	124	62.0%
No	1	2.5%	8	5.0%	9	4.5%
Don't Know	8	20.0%	59	36.9%	67	33.5%
<b>Total</b>	<b>40</b>		<b>160</b>		<b>200</b>	

**Information on regular management and maintenance of MPCs:** Additionally the respondents were encouraged to share whether they are informed about the provision of regular maintenance and

management of CS. Surprisingly, only about 6% of the respondents were able to say “Yes” to the point. Evidently, the committee formed in each CS should be properly functional with regular sharing of information both in small and larger group so that people irrespective of all cadres should be aware of the management procedure and maintenance norm of the CS. It can be related to personal observation of the researcher that in few cases CS requires immediate attention for repair and maintenance. For instance, the doors are found bended while the cemented plasters portions are seem fragmented. To certain extent, the respondent either do not have time to visit those spots or are indifferent to the fate of the CS.

Do you know there is a schedule for regular maintenance work?	Control area		Operational area		Total	
	Yes	2	5.0%	10	6.3%	12
No	9	22.5%	48	30.0%	57	28.5%
Don't Know	29	72.5%	102	63.8%	131	65.5%
<b>Total</b>	<b>40</b>		<b>160</b>		<b>200</b>	

#### Willing to contribute for regular maintenance of CS

The respondents also answered all the point of extending individual contribution towards the corpus of CS while will be later on used for regular maintenance and repair while about 54% said that they are ready to contribute in terms of labour their financial condition is not sound. About 45% categorically answered that it is a government owned asset and hence the repair and maintenance aspects happens to be the lookout of Govt. It should be borne out of govt. funds.

Willing to contribute for regular maintenance of CS	Control area		Operational area		Total	
	Money	0	0.0%	4	2.5%	4
Labour	26	65.0%	82	51.3%	108	54.0%
Materials	0	0.0%	1	.6%	1	0.5%
No support, Govt. will do	14	35.0%	75	46.9%	89	44.5%
<b>Total</b>	<b>40</b>		<b>160</b>		<b>200</b>	

#### The shelter is served for:

As much as 96% of the respondents are fully aware that the shelter is meant for safety of community people and live stocks. Some of them could narrate that the open space in the ground floor is available for keeping livestock for safety while the first floor having multiple rooms and toilet facilities are meant for accommodating both men and women. As regards kitchen and common utensil they could not speak much.

The shelter is served for:	Control area		Operational area		Total	
Only people	1	2.5%	6	3.8%	7	3.5%
Both people and livestock	39	97.5%	154	96.3%	193	96.5%
<b>Total</b>	<b>40</b>		<b>160</b>		<b>200</b>	

**Is the shelter accessible to persons with disabilities:**

There is complete information among the respondents that the cyclone shelter is also meant to accommodate the person with disability on priority basis. There is a spacious ramp around the MPCs which can be used to rush with such people without any hassle. Out of those who answered negatively further asked to cite reasons for this. It was shared that safety of human life are of first priority while only very few of the respondents cited that they have never been to the CS any time. About 2 persons mentioned that wheel chairs are not available, at the same time no specific person has been entrusted to rescue person with disability if at all any such situation of calamity occurs.

Is the shelter accessible to persons with disabilities?	Control area		Operational area		Total	
Yes	40	100.0%	156	97.5%	196	98.0%
No	0	0.0%	4	2.5%	4	2.0%
<b>Total</b>	<b>40</b>		<b>160</b>		<b>200</b>	

If No, why, give reasons	Control area		Operational area		Total	
Human life first	0	0.0%	1	25.0%	1	25.0%
I didn't get into the building	0	0.0%	1	25.0%	1	25.0%
No wheel chair	0	0.0%	1	25.0%	1	25.0%
Who will bring the person? I don't know the facility for disable person	0	0.0%	1	25.0%	1	25.0%
<b>Total</b>			4		4	

**Is there any permanent display board:**

Almost 3% of the respondents could not recall that there is permanent display board placed with prominence at the CS. Out of those who answered yes was further made to speak out that they know about the emergency contact of key persons associated with regular affairs of CS such as Village leader, personnel from OSDMA, shelter care taker who could be contacted whenever required.

Is there any permanent display board?	Control area		Operational area		Total	
	Yes	0	0.0%	6	3.8%	6
No	40	100.0%	154	96.3%	194	97.0%
<b>Total</b>	<b>40</b>		<b>160</b>		<b>200</b>	

Is there any Emergency Contact No.	Control area		Operational area		Total	
	Village Leader	4	66.7%			4
Personnel from OSDMA	1	16.7%			1	16.7%
Shelter Care Taker	1	16.7%			1	16.7%
<b>Total</b>	<b>6</b>		<b>0</b>		<b>6</b>	

#### Whether the community have seen any indicative sign:

The respondents further were encouraged to mention whether they have at any point of time seen any indicative sign such as location map, emergency exit, etc. Accordingly, it was revealed that about 20% have witnessed hand rails while about 33% affirmed about the access of disability persons, while about 41% fairly viewed that there is a provision of escape route and emergency exist attached with CS.

Is there any Sign of the following	Control area		Operational area		Total	
	Limitation within shelter	0	0.0%	1	.6%	1
Maximum occupancy	0	0.0%	2	1.3%	2	1.0%
Emergency exit	4	10.0%	31	19.4%	35	17.5%
Escape route	10	25.0%	37	23.1%	47	23.5%
Access of disabilities	20	50.0%	45	28.1%	65	32.5%
Hand rails	4	10.0%	35	21.9%	39	19.5%
No sign	20	50.0%	113	70.6%	133	66.5%
<b>Total</b>	<b>40</b>		<b>160</b>		<b>200</b>	

#### Awareness on number of Storied of CS

It was also tried to figure out how many floors are there in the CS, in the tune of respondents. About 45% of the respondents have witnessed that there are two floors while only about 32% could mention that it has only one floor. Most importantly about 23% could not mention anything. It implies that the CSs are seldom visited by majority of the respondents. This affects the familiarity and involvement of people in general in day to day affairs of the MPCS whereby the ownership and participation aspects are at stake.

No. of storied of CS	Control area		Operational area		Total	
1	22	55.0%	42	26.3%	64	32.0%
2	13	32.5%	76	47.5%	89	44.5%
Don't Know	5	12.5%	42	26.3%	47	23.5%
<b>Total</b>	<b>40</b>		<b>160</b>		<b>200</b>	

### Knowledge on dimension of the area of CS

The interviewer also asked the respondent to speak out whether they really know about the dimension of the area where the CS has been erected. It was strange to know that a huge proportion of about 87% of the respondents are not aware of it at all.

Area of the CS	Control area		Operational area		Total	
3000	0	0.0%	3	1.9%	3	1.5%
3500	0	0.0%	2	1.3%	2	1.0%
4000	0	0.0%	2	1.3%	2	1.0%
5000	0	0.0%	2	1.3%	2	1.0%
5625	0	0.0%	1	.6%	1	.5%
7000	0	0.0%	1	.6%	1	.5%
8000	0	0.0%	2	1.3%	2	1.0%
9000	0	0.0%	1	.6%	1	.5%
10000	0	0.0%	6	3.8%	6	3.0%
12000	0	0.0%	2	1.3%	2	1.0%
15000	0	0.0%	2	1.3%	2	1.0%
16000	0	0.0%	1	.6%	1	.5%
Don't Know	40	100.0%	135	84.4%	175	87.5%
<b>Total</b>	<b>40</b>		<b>160</b>		<b>200</b>	

### Knowledge on number of rooms available in CS

When probed about the number of rooms available in the CS, there came mixed responses. As revealed about half of the respondents happen not to be aware about it while about 34% could mention that there are 4 rooms inside the CS. Additionally about 16% of the respondents answered in scatter manner that there are rooms ranging from 3 to 13 are available in the CS.

How many room/Halls inside the CS	Control area		Operational area		Total	
3	1	2.5%	0	0.0%	1	.5%
4	17	42.5%	51	31.9%	68	34.0%

5	3	7.5%	9	5.6%	12	6.0%
6	2	5.0%	16	10.0%	18	9.0%
7	0	0.0%	1	.6%	1	.5%
8	0	0.0%	1	.6%	1	.5%
13	0	0.0%	1	.6%	1	.5%
Don't Know	17	42.5%	81	50.6%	98	49.0%
<b>Total</b>	<b>40</b>		<b>160</b>		<b>200</b>	

Surprisingly about 87% of respondents do not have any idea about the room size in sq.ft. Most of them are illiterate or semi literate who are not much acquainted with the parameters of length and width.

#### Knowledge on area of the room

Room area (in Sq.ft.)	Control area		Operational area		Total	
240	0	0.0%	1	.6%	1	.5%
270	0	0.0%	6	3.8%	6	3.0%
300	0	0.0%	11	6.9%	11	5.5%
360	0	0.0%	2	1.3%	2	1.0%
400	0	0.0%	1	.6%	1	.5%
600	0	0.0%	1	.6%	1	.5%
BIG ROOMS DON'T KNOW SIZE	0	0.0%	4	2.5%	4	2.0%
DON'T KNOW	40	100.0%	134	83.8%	174	87.0%
<b>Total</b>	<b>40</b>		<b>160</b>		<b>200</b>	

#### Whether have toilets in CS

Toilets in CS: The respondent's perception were also obtained in the light of availability of toilet in the CS. Accordingly 93% of them could recall with few moment that the CS are attached with multiple toilets.

Whether have toilets in CS	Control area		Operational area		Total	
Yes	38	95.0%	148	92.5%	186	93.0%
No	0	0.0%	3	1.9%	3	1.5%
Don't Know	2	5.0%	9	5.6%	11	5.5%
<b>Total</b>	<b>40</b>		<b>160</b>		<b>200</b>	

#### No. of toilets in CS

About 51% of the respondents answered that they have no idea about the number of toilets available in the CS whereas about rest 49% answered varied on the number of toilets which ranges from 1 to 20 as depicted in the following table.

No. of toilets in CS	Control area		Operational area		Total	
	1-2	0	0.0%	6	3.8%	6
3-5	1	2.5%	23	14.4%	24	12.0%
6-10	9	22.5%	18	11.3%	27	13.5%
11-20	9	22.5%	31	19.4%	40	20.0%
Don't Know	21	52.5%	82	51.3%	103	51.5%
<b>Total</b>	<b>40</b>		<b>160</b>		<b>200</b>	

### Whether have separate toilet for women

As a gesture of gender inclusive approach introduced in the CS, it was tried to obtain ideas from the respondents whether toilets are available separately for women and girls. As mentioned in the following table, about 82% of the respondents are not at all aware about it, either there is no write ups mentioned at the door or the respondents are not literate enough to read the message.

Whether have separate toilet for women	Control area		Operational area		Total	
	Yes	1	2.6%	33	22.3%	34
No	0	0.0%	2	1.4%	2	1.1%
Don't Know	37	97.4%	113	76.4%	150	80.6%
<b>Total</b>	<b>38</b>		<b>148</b>		<b>186</b>	

**Whether CS has water supply facility:** The respondents seem to have limited idea on the availability of water facility at the CS. As related to accessibility issue, very limited number of respondents happened to be visiting the CS more often. In this light, they were further asked to mention whether water supply facility is available in CS or not. Accordingly, about 15% of the respondents could answer affirmatively whereas the rest of the respondents appeared to be stranger on this point.

Whether has water supply facility?	Control area		Operational area		Total	
	Yes	0		31	19.4%	31
No	0		6	3.8%	6	3.0%
Don't Know	40		123	76.9%	163	81.5%
<b>Total</b>	<b>40</b>		<b>160</b>		<b>200</b>	

### Equipments available in CS

Unlike the findings from qualitative study, it has been revealed that barring the cyclone shelter covered in the study in the adjacent Ganjam and Chhatrapur block, there are very limited instances

of equipments being supplied to the CSs so far. As revealed in the following table about 41% are not all aware about it, while the rest of the respondents mostly dwelling in the control areas could speak out on few equipment that they have either heard or seen to have been placed in the CS. This includes generator set, ASKA light, fan, light, etc.

Equipments available in CS	Control area		Operational area		Total	
Aska light and generator	0	0.0%	3	1.9%	3	1.5%
Don't know	12	30.0%	70	43.8%	82	41.0%
Equipments are damaged	3	7.5%	0	0.0%	3	1.5%
Generator	13	32.5%	60	37.5%	73	36.5%
Generator, fan, light	0	0.0%	1	.6%	1	.5%
Generator, utensil, ladder	11	27.5%	0	0.0%	11	5.5%
No (generator stolen)	0	0.0%	1	.6%	1	.5%
No equipments	1	2.5%	19	11.9%	20	10.0%
Not seen	0	0.0%	5	3.1%	5	2.5%
Only Fastaid & generator	0	0.0%	1	.6%	1	.5%
<b>Total</b>	<b>40</b>		<b>160</b>		<b>200</b>	

### Current Status of CS

The updated perceptions of the respondents were obtained in the light of current status of CS. It was indirectly aimed to assure whether the respondents have either visited or talked about the CS any time in any part of the village or elsewhere. Accordingly, about 74% of them indicated that the CS still stands in usable condition. Additionally, about 16% of them could not mentioned anything.

Current Status of CS	Control area		Operational area		Total	
Us able	23	57.5%	125	78.1%	148	74.0%
Usable only in some section of the shelter	0	0.0%	9	5.6%	9	4.5%
Need repairs for use	0	0.0%	10	6.3%	10	5.0%
Under repairing	1	2.5%	0	0.0%	1	.5%
Don't Know	16	40.0%	16	10.0%	32	16.0%
<b>Total</b>	<b>40</b>		<b>160</b>		<b>200</b>	

### Current condition of the shelter cleanliness

As regards condition of cleanliness and upkeep, it was revealed that 61% of the respondents are provisionally satisfied on this aspect, while about 39% of the respondents appeared not to be aware of it or are not all satisfied on the cleanliness condition of CS.



Current condition of the shelter cleanliness	Control area		Operational area		Total	
	Satisfactory	24	60.0%	98	61.3%	122
Not Satisfactory	10	25.0%	52	32.5%	62	31.0%
Don't Know	6	15.0%	10	6.3%	16	8.0%
<b>Total</b>	<b>40</b>		<b>160</b>		<b>200</b>	

### Knowledge on number of doors and windows fitted with the CS

As revealed in the following tables, the respondents answered in speculative manner about the accessories fitted with the CS such as door, windows, etc. Evidently about 80% of the respondents were not able to answer it particulars while the rest of the respondents committed inconsistently on this issue

Total No. of doors exist	Control area		Operational area		Total	
4	0	0.0%	1	.6%	1	.5%
5	0	0.0%	5	3.1%	5	2.5%
6	0	0.0%	3	1.9%	3	1.5%
7	0	0.0%	1	.6%	1	.5%
8	0	0.0%	14	8.8%	14	7.0%
9	0	0.0%	1	.6%	1	.5%
10	0	0.0%	5	3.1%	5	2.5%
12	0	0.0%	5	3.1%	5	2.5%
13	0	0.0%	1	.6%	1	.5%
15	0	0.0%	1	.6%	1	.5%
16	0	0.0%	1	.6%	1	.5%
18	0	0.0%	1	.6%	1	.5%
30	0	0.0%	2	1.3%	2	1.0%
Don't Know	40	100.0%	119	74.4%	159	79.5%
<b>Total</b>	<b>40</b>		<b>160</b>		<b>200</b>	
Total No. of windows exist	Control area		Operational area		Total	
8	0	0.0%	2	1.3%	2	1.0%
10	0	0.0%	11	6.9%	11	5.5%
11	0	0.0%	1	.6%	1	.5%
12	0	0.0%	21	13.1%	21	10.5%
15	0	0.0%	1	.6%	1	.5%
16	0	0.0%	1	.6%	1	.5%
18	0	0.0%	1	.6%	1	.5%
20	0	0.0%	1	.6%	1	.5%
25	0	0.0%	1	.6%	1	.5%
Don't Know	40	100.0%	120	75.0%	160	80.0%

<b>Total</b>	<b>40</b>	<b>160</b>	<b>200</b>
--------------	-----------	------------	------------

**Mark of depreciation at CS:** Available information regarding the physical condition obtained from the respondents. As revealed in the following table, very limited number of respondents could cite particular instances of the structural defects found so far. Only it was noted in 4 cases that cracks found in ceiling, wall of the CS which needs to be addressed by trained mason or contractor assigned for construction.

<b>Cracks</b>	<b>Control area</b>	<b>Operational area</b>	<b>Total</b>
Ceiling crack	0	1	1
Wall crack	0	1	1
Joint of wall and beam	0	2	2

#### **Whether have Shelter management committee?**

Management is inherent part of keeping any structure in usable condition for a longer period. The same thing holds good in case of CS. In this light, it was tried to collect information from the respondents. As revealed in the following table about 38% are found to be aware of it while the rest of the respondents answered sceptical.

As regard to the composition of management committee, it was revealed that 60% of the respondents are not confirmed on the membership of male persons, while that of 75% of the respondents are least informed on the representation of women as members in the committee.

<b>Do you have Shelter management committee</b>	<b>Control area</b>		<b>Operational area</b>		<b>Total</b>	
Yes	13	32.5%	63	39.4%	76	38.0%
No	27	67.5%	97	60.6%	124	62.0%
<b>Total</b>	<b>40</b>		<b>160</b>		<b>200</b>	
<b>No. of men in the Shelter management committee</b>	<b>Control area</b>		<b>Operational area</b>		<b>Total</b>	
10	0	0.0%	5	7.9%	5	6.6%
11	0	0.0%	1	1.6%	1	1.3%
12	0	0.0%	1	1.6%	1	1.3%
15	0	0.0%	1	1.6%	1	1.3%
16	0	0.0%	1	1.6%	1	1.3%
20	0	0.0%	5	7.9%	5	6.6%
21	0	0.0%	4	6.3%	4	5.3%

22	0	0.0%	3	4.8%	3	3.9%
24	0	0.0%	1	1.6%	1	1.3%
25	0	0.0%	2	3.2%	2	2.6%
27	0	0.0%	3	4.8%	3	3.9%
28	0	0.0%	1	1.6%	1	1.3%
31	0	0.0%	2	3.2%	2	2.6%
Don't Know	13	100.0%	33	52.4%	46	60.5%
<b>Total</b>	<b>13</b>		<b>63</b>		<b>76</b>	

No. of women in the Shelter management committee	Control area		Operational area		Total	
	3	0	0.0%	2	3.2%	2
4	0	0.0%	7	11.1%	7	9.2%
5	0	0.0%	7	11.1%	7	9.2%
6	0	0.0%	2	3.2%	2	2.6%
7	0	0.0%	1	1.6%	1	1.3%
Don't Know	13	100.0%	44	69.8%	57	75.0%
<b>Total</b>	<b>13</b>		<b>63</b>		<b>76</b>	

## FINDINGS FROM QUALITATIVE STUDY

Exploratory way of qualitative assessment on the functioning of multi-purpose cyclone shelter was conveniently carried out in Khallikote Block. As many as 16 villages equipped with cyclone shelter were covered under the study. The basic objective of the qualitative assessment was to accumulate unbiased perception of community members in the light of use and utility of such cyclone shelters as they experience in their day to day life. A cordial environment was created for intensive discussion among the stakeholders in the way of open ended narration. The focus group discussion was conducted with a compact group consisting of 10 to 12 members wherein high concentration was laid on the access and usage of cyclone shelter in the light of disaster management, resilience and preparedness.

People friendly guideline for conducting FGDs was aptly designed by professional research experts having extensive field experiences on the disaster management issues in order to ensure smooth moderation the tool was pretested elsewhere and later on added with fair modification. The field researchers were thoroughly briefed on the tool who effectively practised both in the field and in the management unit. More importantly, the convenience and consent of participants was given high degree of respect for which the meeting venue and timing was scheduled accordingly. This really facilitated voluntary participation and in-depth sharing followed by validation from participant's side in the venue itself. The group usually comprised of PRI members, care takers, women folks and representatives from different wards who altogether contributed notable facts as they feel as issues and strengths of cyclone shelter.

At the state level, it was decided to include at least 4 MPCs located in adjacent block viz. Ganjam and Chhatrapur Block wherein the same procedure of data collection and FGDs was to be followed later. The idea was to pick up in magnetic view all those good practices and region specific endeavours that induced as key points to improve upon the functioning of cyclone shelter. It was also intended that cross learning and sharing of ideas in a mutual process would facilitate greatly in branding more cyclone shelter as model ones. In such a way, confidence building measures and larger involvement of youth groups can be harnessed as primary means to consolidate disaster preparedness measures. In these circumstances, FGDs organised in respective villages also reflected the level of coordination among different stakeholders as a mark of convergence and sustainability so as to confirm the word "multi-purpose cyclone shelter" in reality in the days to come.

FGDs were conducted in a strategized manner in all places while the moderators probed effectively in the region friendly language to facilitate spontaneous participation. Extensive running notes were taken by the note taker which later on used for transcription and analysis to obtain specific perceptions MPCs wise. Pre and post movement around the

cyclone centre and inside also opened scope for observing physical condition of the cyclone shelter, assets and safety aspects coupled with maintenance issues. The limited interface created a strong interest among the participants who could realize themselves as major stakeholders for whom the MPCSSs are destined to function effectively as per guideline envisaged. Out of curiosity, the core members of MPCSS in some places also showed available records and documents circulated among them from different sources till date. This also confirmed the extent of official upkeep and periodical interfaces involving designated officials, PRIs and community members both men and women.

In the whole process, the field personnel of IGSSS also coordinated for organising FGDs effectively. Moreover, there was also telephonic interaction with the district level personnel from OSDMA who all the way showed keen interest for documenting the study findings in much realistic manner. The core team members of SDM, CUTM also took part in selected FGDs to ascertain accumulation of people centric views pertaining to utility and acceptance of MPCSS as a gesture of community owned infrastructure defined with a purpose.

Some of the key findings have been analysed and documented with a view to have a grip over the present sphere of prevalence at the MPCSS in Khallikote Block. In addition, it can also be invested for better understanding of revamping strategies for more action oriented intervention.

### **Awareness of Cyclone Shelter**

Undoubtedly, the awareness level regarding cyclone shelter is sufficiently high among men and women. It accrues the fact that they have witnessing setting up process right from micro planning to completion of construction. In some cases, they have been involved voluntary by contributing their labour and keeping watch on the quality aspects of construction and even shifting of materials. It was learnt that the contractor utilised services of local carpenters while on the other hand the masons were deputed on the site mostly chosen in bulk from elsewhere. The MPCSS also portray greater visibility from the point of viewers who often travel to and fro. It was found that majority of participants are aware about the purpose of building cyclone shelter in their habitation. It was shared that several meetings have been organised by the personnel of IGSSS to sensitize people on different aspects from time to time. However, the level of awareness sometimes in many instances is not backed by sufficient involvement of stakeholders in regular affairs and events at cyclone shelter as expected.

The idea of disaster management plan introduced in each MPCSS was less figured out in the tune of participants. The document could not be traced out for reference. As regards the rescue and evacuation plan, people more or less aware about it. In several occasion, mock drills have been organised to practise the process. In general, people know that mostly the

vulnerable population and people from peripheral villages are to be given priority during evacuation. However, little awareness particularly among women was recorded in reference to number of rooms, doors and windows and even toilets (separately for men and women) available in the cyclone shelter. They were also strange about present condition of the accessories when probed. In few cases, it was reported that the water lifting device is not in order which affects running water supply to the structure. The community members in specific MPCs, even suggested to make use of their personal bore wells for lifting water to the shelters as the approved one have gone failure due to geographical toughness.

Participants expressed their eagerness to get conversant with the disaster management plan for their respective villages. They urged that the documents and records should be available in their shelter in proper shape so that this can be referred from time to time to promote participation. It was also revealed that people from distant villages are less involved in the management and operational sphere of MPCs.

Overall suggestions from the participants emphasized upon scrutinizing the participants who are actually able to get involved and invest their time and energy for the betterment of MPCs. Moreover, it was also requested to include additional members from other villages so that equal participation can be ensured with accountability.

It was observed that selected cyclone shelters visited in adjacent Chhatrapur and Ganjam Blocks are better functional from several points of view. There is higher degree of awareness in terms of structural facilities and on-going maintenance of the shelters.

## **Capacity**

There was mixed responses of participants on the capacity of cyclone shelter. Generally, it was viewed that the cyclone shelter has adequate space and amenities to hold sizeable number of families (about 400-500) during the emergency. There is also space beneath to allow livestock for taking shelter. Over the past few years, more and more families have also converted their houses into concrete ones either by various govt. schemes or by incurring loan or selling their belongings. The main objective has been to ensure safety at the time of natural calamity in some FGDs conducted at Keshpur Kaluapadar, the participants seem to be discontented with the quality of construction of CS. They also expressed strong reservation to enter into CS for safety during disaster. The CS is built with poor quality and needs immediate attention for repair and maintenance. Since the shelter is also located in the school compound, the school teachers also insist upon the quality assurance and regular maintenance of the structure. Suggestions also came up to thoroughly make assessment of vulnerable persons in different villages who require immediate attention for rescue upto the CS at the time of disaster. This highlighted those persons and families dwelling in katcha houses and mostly in open spaces where the wind flow is highly risky. There are also few

other structures in complete form such as individual house, community structures like schools and other institutions which are also reliable to some extent. However, early warning system needs to work out more effectively so that people would not assume things lightly as there have been instances during super cyclone, phailin, hoodhood, etc. The bunch of catalysts need to intensify their efforts in the form of mock drill and periodical campaign coupled with counselling measures so that people in general could be accustomed to face the situation of disaster if at all happens in future with all commitment and preparedness.

### **Accessibility**

At the first sight, the shelter looks spacious having all the basic facilities like electricity, drinking water, accessories and others. It was proved to obtain collective views about location of the cyclone shelter. The main intension was to ascertain whether the cyclone shelter built in the site is acceptable to all or not. There was mixed views about this point. But as per the majority of respondents, the cyclone shelter is built in a convenient place. Moreover, it is easier for the people to reach within limited time whenever there is a time of urgency whereby the life and property happens to be in threat. However, it was also viewed that the availability of land with approval was also another factor which largely decided the location of the cyclone shelter. The rural folk on the whole, usually do not feel otherwise so far as location of cyclone shelter is concerned. In very few cases, such as Badapalli and Bania, the CSs are located quite in the outskirts for which frequent movement of people becomes restricted due to high solitude. Based on the discussion and personal observation, it was made clear that there is no such barrier, both physical and social, in reaching the cyclone shelter. For instance, issue of social exclusion or discrimination was not at all found during the interaction in different villages.

In some instances, such as Badapalli, there are 11 numbers of Wards from where people are expected to rush to the CS at the time of emergency. As per the verbal views, the maximum distance from the CS to the village is around 7 KMs. Here it is vital to chalk out specific plan for rescuing the vulnerable population such as children, elderly and the persons with disability. As regards, solution to such issue, it was said by the participants that the rescue equipment should be properly in place while the youth group trained in mock drill should be readily available in high alert so that such vulnerable population can be addressed at high time. Some of the specific findings related to accessibility figured out limited role of women and adolescent girls who were found to be less vocal about the issue. Adding to this, the team conducting research also could not find it convenient to interact with the women folks from the scattered villages which could have added strange to the qualitative study.

The overall observation on accessibility also hinted upon limited initiatives taken up jointly by men and women. Most importantly, the PRI members have contributed a lot towards motivation and mobilization of community to enable people realized the high importance of MPCs in their lives.

### **Perception**

Cyclone shelters have come up in the respective villages as a gesture of boon for the community wellbeing. It is truly an asset to help protect lives and properties in high time. At the same time, it is also a structure in the community that really enhances the fame of the villages. Such were some of the comments shared by the participants in FGD which were uttered spontaneously. It connotes that people in general value the CS as saviour of their lives in the time of emergency.

There were also discussions on the utility of the cyclone shelter in the normal times. It is this activity that promotes maintenance of CS and cultural enhancement by organizing different social events from time to time. Thereby the social harmony is consolidated to stand up for high causes. However, certain disparities were found in the mindset of the people who express their reservation on the aspect of proper use and maintenance of the CS. According to them, the usage is more perceived as lightly and casually. For instance, marriages and other common feasts are organised in different times but there is no record of contribution collected in the corpus which otherwise is specifically mentioned in the guideline of MPCs. If such practice carries forward without amendment, there won't be scope for visible corpus in the account of individual MPCs. The field team conducting FGDs also viewed some of the documents and records issued by the OSDMA, IGSSS and other line departments. It was pointed out that the roles and responsibilities of President and Secretary in several cases is not properly accomplished. It might be due to the poor knowledge of President and Secretaries and other members which otherwise affects the regular maintenance and day to day use of CS for various purposes. It was noticed that in few MPCs the assets and electrical appliances have been stolen by unidentified person which is still is not traced out. In some other cases the key of CS is not available with the concerned villagers. It largely impedes frequent movement to the CS.

There are also good practices being introduced by some villagers like N.Barapalli and Badapalli etc. who have kept on contributing personally to support the cleanliness of MPCs. In another instances, the remuneration of informal caretaker has been borne by the contractor. In such instances, there should be motivational efforts by catalysts to generate fund at the community level. Regular ongoing activities and frequent movements can assure safety and tidiness of MPCs. Suggestions also came on behalf of the participants that there



should be discussions on matters of CS in grassroot level interfaces like Gram Sabha and monthly meeting GP office so that such gaps of irregularity in maintenance can be averted.

The minutes of FGDs also recorded the condition of assets attached to the CS. It was noticed that the wooden doors and windows in the meantime are found with defects, locking systems fails. In some other cases, the borewells have gone defunct while the electricity connection needs to be restored officially. The structure also requires repair and maintenance wherever necessary. In such cases, if the local mason and carpenters are entrusted. It would not only instil ownership and attachment to the shelter but also they could be readily available to render services in a prompt manner.

The point of discussion also included the status of rescue instrument and other assets available at the MPCS. It was revealed that till date only one generator has been supplied to each MPCS which in several situations require maintenance, to be operational at the time of need. In certain cases, the generator is kept in the personal custody in the village on account of safety issue. This was observed in N.Barpalli village of Khallikote block. In reference to the list of equipments provided on behalf of OSDMA, the actual scenario depicted that such materials are still not provided to the concerned MPCS. Most of the participants look strange on this issue. But there was information available with the people that such materials have been approved to be provided to each MPCS. The research team also generated discussion about mock drill practices. It was revealed that periodical mock drills are organised in each MPCS whereby the demo instances of rescue were conducted to convince people that such measures can be immediately taken up in emergency. When probed about the equipment issues, it was shared that mock drill often took place more verbally. In few cases, it was pointed out that the rope ladders and other things were carried by the resource persons for demonstration purpose only. The mock drill also should have been conducted with uniform participation of representatives from all the villages that has supposed to cater to the MPCS at the time of emergency.

The overall excerpts from the FGDs indicated upon the need to intensify coordination among different stakeholders. It was perceived that the MPCS members and the community in general have certain illusions in their mind that needs to be sorted out. It might be in the form of reinstalling the failure borewell, connecting electricity, opening of bank account jointly in the name of President and Secretary, provision of boundary wall and management of assets and equipments at the centre.

In the aspect of maintenance and management point available at the MPCS level, it was learnt that accounts are being opened very recently, the fund disbursement is awaited. In some cases, positive signs have been explored such as spiritual classes are being held in the CS, ICDS department have informally agreed upon using the CS in normal time for fostering vocation practices of SHGs and the local talented youth using the venue as tutorial not only to benefit the people but also to generate some income for themselves. In multiple cases,

Sarpanch and PRI members are found noticeably active in the day to day affairs of the CS who also were a part of the FGD. The team also explored certain concrete structure lying mostly underutilized. Approved measure of innovation could be helpful to reassure utility of the structure in the time of disaster wherever the capacity of MPCS exceeds in accommodating the whole of vulnerable mass.

As a gesture of comparative analysis, both structural and behavioural aspects of MPCS, it was decided to conduct FGDs in 4 MPCSs established in Ganjam and Chhatrapur Block. The level of participation has been at par with Khallikote block where the willingness and attitude of community members to get involved in matters of MPCS has been highly encouraging. Since these MPCSs are fairly older one, the equipment supplied has been ensured along with the transfer of funds to the each joint account of MPCS. It was a pleasure to observe the usage and maintenance of the equipment provided to the CS. The group also narrated that the MPCS belongs to their community which otherwise is a primary responsibility of the people to help in proper upkeep of the structure. The role clarity on duties and responsibility found to be more prominent in such places in comparison to the ones in Khallikote block. The visit of different functionaries and stakeholders is also found to be more frequent which in other way strengthens inter department coordination and supportive supervision. For instance, one CS viz. Satrusole in Ganjam block appears to be a model one not only from the point of view of structural durability, functionality, but also in the aspect of integration with various govt. schemes. In such a sphere, the MPCS is equipped with boundary wall on all side which has been supported by RD department. The stakeholders in the community have put in their labour to develop garden around the shelter with flower pots and shady trees. This gives the MPCS a smart look which is ready to serve people in the time high situation. The people have also constructed a small temple having the idol of almighty in live form. In this way, the religion and cultural belief of the community is kept intact making the MPCS quite homely not only in normal time but in the time disaster too. Such a nice endeavour needs to replicate elsewhere make the drive of disaster preparedness and management more people's oriented and optimal in terms of access and usage.

## **FINDINGS FROM INDEPTH INTERVIEWS WITH KEY FUNCTIONARIES**

A series of indepth interview has been conducted with functionaries and PRIs both at the block level and grassroot level to validate and substantiate the vital points of sharing accumulated through FGDs and structure household interviews, equipment assessment form and personal observation of research team. The idea is to a larger extent serve as eye opener to look into the strengths, issues and possibilities that needs to be taken care of strategically with region specific approach. It was also a valid process restore the felt reactions in the form of feedback and suggestions that could go a long way in improving the fate of MPCs, if at all taken care of empathetically.

The team availed scope to interact extensively with the Secretary and President of the concerned MPCs. It was revealed that they are still insufficiently aware on the defined roles and responsibility. The documents available with them are mostly in English which needs to be facilitated for easy understanding and application in action. The belongingness of such stakeholders could be further strengthened with approaches like collective supervision, internal assessment and interfaces at regular interval in reference to the available records, documents and updates. Training on asset management, fund management and event management at MPCs level would be immensely helpful to ensure all structures fully functional. It was also suggested that the day to day activities of the MPCs should be an agenda for review in the panchayat level meetings which is usually held in every month.

The GPEO of Khallikote Block was also interacted by our research team at the panchayat samiti office. He is found to be keenly interested to invest his time and energy for improving the site and sphere of MPCs. In the mean time, he has coordinated the mock drill session organised at each MPCs in Khallikote block. As regards impact, he advocates that the mock drills should be organised with using the equipments available in the shelter. In addition, his suggestions also came in the light of visiting the MPCs more frequently which is of course not happening as expected. As more points, he suggested that the official correspondence and interfaces of OSDMA, IGSSS and other agencies should go on in due coordination with panchayat samiti and more particularly the GPEO who is better to be involved from time to time. He also cited indirectly on certain political issues associated with the MPCs level for which stakeholders are not able to put up strong team effort in terms of usage and maintenance of cyclone shelter.

The research team was privileged enough to discuss in depth with the BDO and Additional BDO in one level. The BDO, being newly posted, has been keen enough to listen to the some of main observations that the team have accumulated through the process of data collection and field visit. He has assured to focus upon the points of improvement required to be looked into for ensuring functional aspects of MPCs. On the other hand, the Additional BDO shared his experiences extensively based upon the field visit and review. Among other

things, he focussed upon the accountability and transparency aspects that could prove most effective to minimise the gap between contractor and the community. Furthermore, he suggested that since financial transaction is expected at the MPCS level along with the maintenance of valuable assets. Selected Govt. functionaries such as Panchayat Executive Officer(PEO) should be assigned officially to take care of record maintenance and onsite supervision. He can be an asset to the President and Secretary of MPCS whenever it is required to furnish statement of accounts and records of performance, since he is based at the GP office. As an added point of validity, he also suggested that the periodical review on the status of MPCS should be organised at the block level preferably on quarterly basis so that the gap can be addressed and the best practices can be shared and replicated. Such interfaces should have the participation of the district representative of OSDMA, coordinating personnel from IGSSS, prominent PRI members, resource persons conducting mock drills and the officer bearers of each cyclone shelter. A clear cut agreement should be expected to promote maintenance of the CS and depreciation of the assets. On the whole, he has expressed his positive views on the mobilization initiatives adopted by IGSSS and increased level of participation by the community at different MPCS for whom the preparedness measures have become visible and the drive has been underlined. The points suggested by the block level officials are of crucial importance to strategy further action at the MPCS level in a comprehensively coordinated manner.

The senior researchers deputed from state level intensively studied about 8 numbers of MPCS in Khallikote Block to obtain indepth view on the functioning, impact and issues associated with the structures. These findings have been put in black and white in the form of matrix which is based upon the guidelines introduced to conduct FGDs at MPCS level. The matrix is documented with a view to obtain a comparative view of selected CSs on specific aspects which are depicted in nutshell.

### Findings from qualitative Study

Name of MPCS overviewed	FACETS OF IMPACT						
	Awareness level of CS	Capacity	Accessibility	Perception	Coordination	Participation and ownership	Issues
1. Kumuripur /Badpalli	<ul style="list-style-type: none"> <li>Both men and women are aware in general</li> <li>Little knowledge on how to venture into CS in the light of disaster</li> <li>DMP is not available with the community</li> <li>Mock drill organised with limited impact</li> <li>Eagerness for enhanced involvement</li> </ul>	<ul style="list-style-type: none"> <li>As many as 11 wards expected to be catered to</li> <li>Capacity of MPCS not enough to accommodate whole mass</li> <li>Villages in the outskirts are in threat which is about 7 Kms. distance</li> <li>Fate of vulnerable section is not figured out clearly for rescue</li> </ul>	<ul style="list-style-type: none"> <li>Location is hardly people's centric who have to walk down to the solitary place</li> <li>Distance, privacy and security are instances of barrier</li> <li>Instance warning system can hardly help prompt evacuation</li> <li>Limited rooms are accessible for common use</li> </ul>	<ul style="list-style-type: none"> <li>MPCS is a blessing for the community</li> <li>It has motivated several families to construct houses in concrete form</li> <li>Durability is assured</li> <li>Basic services like water and electricity is still unavailable</li> <li>Handed over the community, but very few are aware</li> <li>Keys with the contractor who keeps paying the ad hoc caretaker</li> <li>Rescue equipment still not provided excepting only one generator</li> </ul>	<ul style="list-style-type: none"> <li>Community level coordination is feasible</li> <li>Inter departmental coordination needs to be revamped</li> <li>Most of the communications happens verbally</li> <li>Records and minutes are not available</li> <li>Former Sarpanch found more active than present one</li> <li>Women have potential to carry on regular vocational activities</li> </ul>	<ul style="list-style-type: none"> <li>PRI community leader found proactive</li> <li>Need to involve representatives from far off villages</li> <li>Caretaker to be figure out on regular basis rather than ad hoc</li> <li>Bank Account just opened</li> <li>Waiting for fund receipt</li> <li>Authentic handover required</li> <li>Calendar of activities at MPCS needs to be in place</li> </ul>	<ul style="list-style-type: none"> <li>Handover process not clarified till date</li> <li>Records, minutes and assets missing</li> <li>Influence of contractor till persists</li> <li>Meeting and interfaces held rarely</li> <li>Very little coordination with block and other stakeholders</li> <li>Equipment not supplied till date excepting generator</li> <li>No boundary wall, electricity and water facility</li> </ul>
2. Pana Nuagaon	<ul style="list-style-type: none"> <li>Completed in first phase (2015-16)</li> <li>Diminishing level of awareness</li> <li>Sick of attending repeated meetings without remedy</li> <li>DMP is not available</li> <li>Low involvement of women folks</li> </ul>	<ul style="list-style-type: none"> <li>People from same village feel insecure to take shelter</li> <li>Strength of cyclone shelter is not issue rather the dilapidated condition is a matter of concern</li> <li>Location is within reach</li> <li>No discrimination found among people</li> <li>Rescue plan is not well acquainted</li> </ul>	<ul style="list-style-type: none"> <li>Committee is not fully functional</li> <li>Irregularity in periodical status assessment</li> </ul>	<ul style="list-style-type: none"> <li>MPCS is a right step to avoid disaster</li> <li>Only structure cannot do</li> <li>Larger awareness, sensitization highly required</li> </ul>	<ul style="list-style-type: none"> <li>Diminishing participation</li> <li>Mock drill organised without equipment</li> <li>Mobilization is not backed by solution and needful intervention</li> </ul>	<ul style="list-style-type: none"> <li>Unilateral participation in many instances</li> <li>Women members' input and care lacking</li> <li>Fearfulness in the light of forthcoming disaster</li> </ul>	<ul style="list-style-type: none"> <li>Electricity, water supply, security are big issues</li> <li>Equipment of rescue are still not supplied</li> <li>Operational mechanism in black and white is not practised fully</li> </ul>

3.N. Baraplli	<ul style="list-style-type: none"> <li>• Healthy involvement of both men and women</li> <li>• Awareness of larger section</li> <li>• Conversant on usage of MPCS</li> </ul>	<ul style="list-style-type: none"> <li>• High degree of sensitization on who to be rescued from where</li> <li>• Strength is moderate</li> </ul>	<ul style="list-style-type: none"> <li>• Location of MPCS in the school premise is favourable</li> <li>• Catalyst advocates for helping people to avail pucca house under IAY</li> </ul>	<ul style="list-style-type: none"> <li>• It's a great asset in the community</li> <li>• Regularization of basic amenities could add strength to the image</li> <li>• Community contribution for maintenance is noticed</li> </ul>	<ul style="list-style-type: none"> <li>• Govt. officials visit often, but hardly issue based</li> <li>• PRI members highly concerned about functioning MPCS</li> <li>• ICDS department verbally agreed to use the cyclone centre in normal time on contribution</li> </ul>	<ul style="list-style-type: none"> <li>• Community level coordination is feasible</li> <li>• Remuneration of ad hoc care taker met from people's contribution</li> <li>• Villagers as a whole are attached to the centre in their day to day affair</li> </ul>	<ul style="list-style-type: none"> <li>• Electricity, water supply, security of CS</li> <li>• Only 1 generator supplied till date</li> <li>• Equipment not handed to the community, yet mock drill takes place</li> <li>• Most of the records are kept elsewhere</li> </ul>
4.Mathura/ Badakatha A	<ul style="list-style-type: none"> <li>• Gross awareness level is satisfactory</li> <li>• Low women involvement</li> <li>• Located inside the village</li> <li>• Safety of co-villagers underlined due to MPCS</li> </ul>	<ul style="list-style-type: none"> <li>• Durability and strength of MPCS assured to accommodate nearby population</li> </ul>	<ul style="list-style-type: none"> <li>• Located inside the village</li> <li>• Can function as per guideline if supervised properly</li> </ul>	<ul style="list-style-type: none"> <li>• Community highly valued the MPCS in their lives</li> <li>• Often being used for marriage and other functions without contribution</li> </ul>	<ul style="list-style-type: none"> <li>• Very little coordination perceived</li> <li>• Line of management needs to be strengthen</li> <li>• Being used for spiritual classes for children</li> </ul>	<ul style="list-style-type: none"> <li>• Low participation in maintenance</li> <li>• Looks untidy</li> </ul>	<ul style="list-style-type: none"> <li>• Electricity and safety are issues</li> <li>• Water supply gone defunct</li> <li>• Regular maintenance not found</li> <li>• Youth group found misled on proper use of MPCS</li> <li>• Equipment till not supplied</li> </ul>
5.Keshpur (Kaluapadar)	<ul style="list-style-type: none"> <li>• Villages have casual attitude towards CS</li> <li>• General perception indicates unsafe condition of CS</li> <li>• Usage and utility of CS appears to be unclear</li> <li>• Located inside the school campus, within reach of community</li> </ul>	<ul style="list-style-type: none"> <li>• Although close to Keshpur and Rly. Station, visibility of MPCS is in poor state</li> </ul>	<ul style="list-style-type: none"> <li>• It is located within the school premises</li> </ul>	<ul style="list-style-type: none"> <li>• Structure is highly unsafe for people to take shelter in disaster</li> <li>• Remedial measures needed urgently</li> </ul>	<ul style="list-style-type: none"> <li>• Visit of officials is hardly agenda based</li> <li>• Stakeholders of MPCS committee are hardly intact</li> <li>• Roles and responsibility is not actualized</li> </ul>	<ul style="list-style-type: none"> <li>• Fishing community use the MPCS as a dumping yard for keeping their assets</li> <li>• Women are highly concerned on proper use</li> <li>• School teacher found disheartened with low departmental coordination so far as care of MPCS is concerned.</li> </ul>	<ul style="list-style-type: none"> <li>• Fast depreciation of infrastructure due to poor construction</li> <li>• Equipment are not supplied</li> <li>• Electricity, water supply missing</li> </ul>

6.Badapalli	<ul style="list-style-type: none"> <li>• Strong involvement of community</li> <li>• Awareness level is quite high</li> <li>• MPCS highly valued as a prime community asset amidst poverty and scarcity</li> </ul>	<ul style="list-style-type: none"> <li>• High degree of contentment on the capacity</li> </ul>	<ul style="list-style-type: none"> <li>• Is located within the village</li> </ul>	<ul style="list-style-type: none"> <li>• Community friendly feeling on usage of the CS</li> <li>• Community contribution in terms of labour and cash helps upkeep of the MPCS</li> </ul>	<ul style="list-style-type: none"> <li>• Basic facilities are functional</li> <li>• Women participation is noticed</li> <li>• Records and documents are signed without clarification, mostly in English</li> </ul>	<ul style="list-style-type: none"> <li>• Core members found very active</li> <li>• Youth Group eager to serve people in need</li> <li>• Joint bank account is opened</li> </ul>	<ul style="list-style-type: none"> <li>• Unauthorized Electricity connection</li> <li>• Supply of equipment not accomplished</li> <li>• Lack of clarity as a whole</li> </ul>
7.Bania	<ul style="list-style-type: none"> <li>• Big gap between the MPCS and community</li> <li>• Extremely low level of awareness as to who to take shelter and how</li> <li>• Location not user friendly</li> </ul>	<ul style="list-style-type: none"> <li>• Moderate capacity to hold people in emergency</li> <li>• Village is noticed with good number of concrete houses to withstand</li> </ul>	<ul style="list-style-type: none"> <li>• It is located in the outskirts</li> <li>• Less preference to make use in emergency</li> </ul>	<ul style="list-style-type: none"> <li>• MPCS is a remedial asset to withstand disaster</li> <li>• Is managed by selected few</li> <li>• Low level of maintenance</li> <li>• Contribution from people is rare</li> </ul>	<ul style="list-style-type: none"> <li>• Sarpanch is high active</li> <li>• Some assets missing due to the theft cases</li> <li>• FIR lodged, did not help</li> <li>• Functioning of committees is not regular</li> </ul>	<ul style="list-style-type: none"> <li>• The structure is externally used more often</li> </ul>	<ul style="list-style-type: none"> <li>• Security of CS is a big issue</li> <li>• interface with stakeholder is rare</li> <li>• Rescue equipment till not supplied</li> <li>• Electricity, water supply defunct</li> </ul>
8.Nutan Berhampur	<ul style="list-style-type: none"> <li>• Situated in close proximity to block HQs.</li> <li>• Being utilised on ad hoc basis</li> <li>• Doors and windows portray poor quality</li> <li>• Difference of opinion between main village and the scattered ones</li> <li>• Negligible participation of women</li> <li>• Lack of security</li> </ul>	<ul style="list-style-type: none"> <li>• Durability and strength of MPCS assured to accommodate nearby population</li> </ul>	<ul style="list-style-type: none"> <li>• Located inside the village</li> <li>• Can function as per guideline if supervised properly</li> </ul>	<ul style="list-style-type: none"> <li>• Community highly valued the MPCS in their lives</li> <li>• Often being used for marriage and other functions without contribution</li> </ul>	<ul style="list-style-type: none"> <li>• Very little coordination perceived</li> <li>• Line of management needs to be strengthen</li> <li>• Being used for spiritual classes for children</li> </ul>	<ul style="list-style-type: none"> <li>• Low participation in maintenance</li> <li>• Looks untidy</li> </ul>	<ul style="list-style-type: none"> <li>• Electricity and safety are issues</li> <li>• Water supply gone defunct</li> <li>• Regular maintenance not found</li> <li>• Youth group found misled on proper use of MPCS</li> <li>• Equipment till not supplied</li> </ul>

## CONCLUSION

The Relevance of effective and needs specific disaster preparedness measured has become an integral part of human life. With the passage of time, the risk of possible disaster becomes much alarming to everyone. People in most vulnerable category are always and will always be at high risk. These folks may be dismantled by the stroke of disaster if certain lapses are not bridged up with a war footing approach. Equally, the community also has obligatory duties to look into the fate of such category of people which in turn can avert the high negative impact of disaster. With similar projection in mind, the OSDMA has constructed fair number of Multi Purpose Cyclone Shelter in Ganjam district as major to enhance the coping mechanism of community as a whole. There have been visible achievements in the similar lights such as reshaping the physical gesture of villages with more concrete structures that makes people think up highly to avert disaster. Moreover, equipping the structure adequately and capacitating human resource more frequently have been demonstrated as appropriate accessories of renovating the mindset of the people to put up a gallant fight against any disaster that might be forecasted in future. Hence it is high time to systematically put everything in place so that desired functionality of the system becomes operational with a SMART approach. Last but not the least the community more particularly, women folks need to put in their best involvement for consolidating the disaster preparedness measures as one of the core necessity of their lives. There is also need for adequate inter departmental coordination so as to keep a vigilant eye on the transformational effect of preparedness initiatives keeping the core stakeholders in focus.



## RECOMMENDATION

The systematic and analytical outcome of assessment of MPCS has eventually come up with certain valid recommendations that can further boost the drive both in the grassroots and at various levels of stakeholders. These recommendations are based upon the study findings and personal observation of the researchers which have been reasserted through a series of review and suggestive interfaces at the state level. Some selected recommendations are herewith mentioned for further decision and actions at appropriate ends.

- There is high need to make the structure functional. It implies official handover to the community with a louder tone that is periodical large group interfaces involving various stakeholders and component of MPCS Management Committee.
- Appropriate means of Behavioural Change Communication can prove highly effective in mobilizing the community in a more target oriented manner.
- Supportive supervision at multiple end can be of much help to alert the community on their specific roles and responsibilities.
- Introduction of toll free number at each and every cyclone shelter along with the contact details of key officials can minimize the distance of community with apex body of OSDMA and help clarify rumours, illusions and confusions relating to the implementation process. It also will serve as great help in circulating warning system and activation of different groups entrusted with specific responsibilities.
- Proper introduction and practising of Disaster Management Plan would be of great help to make the people conversant on the different aspects of disaster and its preparedness measures.
- Time bound and accountable mode of repair and maintenance of the MPCS would help avoid depreciation of the structure
- Meticulous process documentation at each MPCS level and in the consolidated form could serve as vital document to figure out key lessons learnt and replication of good practices elsewhere.
- Introduction of MIS at cyclone shelter could be additional advantageous in maintain records, documents, assets and activities in the MPCS level whereby larger involvement of community can be encouraged.
- Periodical capacity building of stakeholders can help realise their roles and responsibility with clear cut and demarcated follow up measure on site.

- Specific assignment and involvement of block level staff like GPEO, ABDO, BDO and GP level staff like PEEO could be of additional advantages in guaranteeing financial transparency and asset management.
- Initiatives of exposures of various stakeholders to selected MPCs which are functional as model one elsewhere would serve as concrete resources for the community members to be guided and driven in the similar path with a motivational approach.
- Systematic reviews at block and district level keeping the issues of MPCs as core agenda will be of much help in ensuring right progress of such preparedness measures.
- Introduction of news letter, audio visuals in region specific tone can highlight the good practices and record the initiatives of individual and collective stakeholders for cross learning at various stages.
- Periodical Midline assessment on KAP of community in respect of MPCs can help figure out the trend of achievements and otherwise formulate need based strategies to fortify the pace of disaster preparedness drive.

# CASE STUDIES

Assessment of multi-purpose cyclone shelters constructed by OSDMA and IRCS in Ganjam district of Odisha.....42

### **Case Study 1: Community led maintenance of MPCS is a distinct feature of Badpalli village**

Badpalli is a revenue village categorized under Bania GP of Khallikote Block. This village is characterized by the simplicity and commitment of the inhabitants. On behalf of OSDMA, a cyclone centre was constructed in the village to make the lives disaster proof in the year 2016-17. This looks in a better situation in comparison to others built in the block. There are about 90 families in the village who seem to have taken personal interest to make use of the cyclone centre in their day to day lives. For instance, the elderly people take rest on the floor which indirectly helps in maintaining the cleanliness of the structure. Till date, electricity is not connected to the centre yet the office bearers and the leading members manage to connect electricity from nearby pole. For this act, they have been warned by the department staff but later on they got their soft corner.

The toilets and the rooms look tidy and functional with the electricity appliances in running condition. A small tutorial is going on for the students who seem to be regularly absent from the school by an educated young man. However, there is no contributory amount collected for this activity.

Women participation looks healthy. The elderly women often do their day to day work in the shelter like food processing, maintenance of SHG records, etc. Women hardly feel insecure while being in the shelter. In the meantime, bank account has been opened jointly in the name of Sarpanch and Secretary of MPCS. Right now, the remuneration of care taker is being paid with contribution from the villagers. The MPCS committee also sits regularly to discuss on general and specific issues of their cyclone centre. On the whole, the villagers are happy that they are a step ahead in facing any sort of disaster with the permanent structure. A genuine request from the villager includes transfer of funds, connection of electricity and frequent interface with community, PRI and officials. During the FGDs, higher response came from women regarding the access and usage of MPCS.

## **Case Study 2: Kandha Pradhan is a change maker for N.Barapalli village of Khallikote Block.**

Sri Kandha Pradhan lives in N.Barapalli village with his family. He is about 56 years old. By profession he is a farmer, but by passion he works for the betterment of people dwelling around him. When asked on the reason, he gladly cites that it is always a great satisfaction for him as somebody takes life positively by dint of his effort. In the meantime, all the 67 families living in N. Barpalli village have already availed pucca houses under IAY scheme. The village looks decent with all houses in concrete form.

Kandha Pradhan also have taken great effort to help built the MPCS in the village with all durability. Right from the site selection till the completion of the structure he has devoted maximum time as a watch dog. He has been organizing people to contribute physically and otherwise towards maintenance and management of cyclone centre. Although there is no approved care taker yet, the villagers led by Kandha Pradhan hardly hesitate to pay for the minimum monthly remuneration by collecting contribution personally. Kandha Pradhan says that it's a prestige of our village to upkeep the cyclone centre often. The shelter is located inside the school campus having overhead water tank. He has been trying several times to connect the shelter with electricity. In the light of issues like supply of rescue equipments, need for frequent interfaces and coordination, he tries to coordinate with stakeholders without hesitation. His wife being a PRI member always supports his generous initiative at the cost of personal pleasure. Even today, Kandha Pradhan urges the cyclone shelter to function in a better way as always expected. In the meantime, he has negotiated with ICDS department for holding SHG activities in the shelter. In exchange they have provisionally agreed to contribute some amount to the fund of MPCS. Simultaneously, the villagers also extends contributory sum regularly. Looking at the shortcomings of the cyclone shelter, Kandha Pradhan and the villagers have kept their generator set in their personal custody.

Kandha Pradhan also is a strong supporter of widening education for children and adults. He has opened an informal school to help many under privileged children avail the scope of learning. During the mock drill session at MPCS, his role is always found to be prominent. The local Sarpanch often takes his suggestion not only on the issue of MPCS but also in various other social security issues. It will be great if more like minded persons would be explored as in case of Kandha Pradhan who could create a chain of campaign for making their villages disaster resilient.

### **Case Study 3: Ensuring Safety of assets in MPCS is a prime responsibility**

Bania is a GP headquarters village situated at a distance of around 20 KMs from Khallikote Block. It is well connected by road and equipped with basic amenities. A cyclone shelter is located in the outskirts of the village built in the year 2016-17. On the day of visit of the study team, there happened extensive discussion among the PRI members and the members of MPCS Committee. It was revealed that the location of cyclone shelter is not satisfactory. Most of the villagers, more particularly women, seldom feel convenient to step in to the shelter at the time of need. There is another concrete structure adjacent to cyclone shelter which also stay neglected.

Few months back, there was a serious theft case at the MPCS. As many as six ceiling fans and other electrical appliances were stolen. It is strange that till date, the culprits are not traced out. The committee members including Sarpanch lodged FIR in the nearest Police Station. They also informed about the matter in the Panchayat Samiti. As a matter of fact, they often look blank as to what really could be done. It is affecting the drive of people to look after the MPCS properly.

Very soon the committee members are expected to receive a set of approved rescue equipments meant for their MPCS. Lots of confusion and apprehension surrounds among the members that what could they do to ensure safety to such assets. There is no assigned care taker to look after the structure nor there any electricity connection to the MPCS and water supply facility. In such a juncture, it is urged that the way of functioning of MPCS committee should be desirably revamped looking at the geographical and social constraints. Only then it could be ascertained that cyclone shelter could serve them at the time of need in any frequency.

#### Case Stud 4: The concept of model MPCS becomes a reality in Satrusalya village

Satrusalya is a revenue village enlisted under Subalaya GP of Ganjam Block. It is inhabited by about 90 families leading a purely agrarian life. As a gesture of improving the coping mechanism of this community, a cyclone shelter was constructed in this village in the year 2016-17. One can notice at first sight a high degree of belongingness of the community with the cyclone shelter. It looks fairly recent in terms of physical appearance. There are committee members who have got their defined roles to serve the CS. There exists a temple in the campus of cyclone shelter to respect the cultural and religious belief of the community. With their own effort, the villagers have developed a small garden around the CS with colourful flower plants. Essential services like electricity and water supply are well connected with the CS. As part of record keeping and frequent interfaces, the CS is noticeably better than others. There is a care taker to ensure cleanliness at the CS. A corpus has already been deposited in the joint account of MPCS as per the existing guideline. Women participation is highly encouraging.

There is an interesting story behind the decision of constructing cyclone shelter in this village. Notably this village is surrounded by hills on multiple sides. In the year 2013, Phailin caused extensive damage in many villages. In search of safety, as many as 450 families from Malud village which is around 30 Kms. from this village, rushed all the way to protect themselves. Due to esteemed generosity, people of this village provided them food and shelter for several consecutive days without



expecting any outside support. In the post Phailin days, this sort of people centric act was noticed by the senior functionaries and PRI members which later on induced them to apply for a cyclone shelter so that many such people could be safely evacuated for safety of life and property. This is the final view of the village that cyclone shelter proves as a valuable assets for all. In the meantime, the district administration has supported funds from Department of Rural Development to construct boundary wall around the shelter. The villagers from their side have contributed labour to develop garden in the campus with ornamental plants. The rescue equipment, records and assets are properly maintained in the shelter which itself is testimony of enhanced discipline and commitment of people towards improving preparedness measures in view of natural disaster forecasted at any point of time in future. Hence it is a pledge for the larger community to adopt good practices as witnessed in this village.

### **Case Stud 5: Cheerfulness regain by arrival of rescue equipments at MPCS**

An intensive process of data collection, both qualitative and quantitative, was carried out by a team of experienced researchers deputed at the state level. Optimum participation was ensured in the field to make the interactive session more lively and unanimous. On the quantitative survey conducted at household level, the perception of individual, both men and women were taken in unbiased manner. In case of qualitative interview, the key informants were invited in their convenient time to seek for a thorough discussion as to what all they feel in proactively of MPCS and what is actually required as marks of improvement. With the progress of the study, the information about study process was circulated in high pace among similar stakeholders in other MPCSs. With the improved communication technology, i.e. mobile phone, the communication gradually intensified. This also impacted upon the key functionaries of Govt. at block level and district level. The PRI members in certain cases also happened to interact with the researchers by revealing their personal observations which is perceived as bottlenecks in fair functioning of MPCS. Among other issues the prominent one was supply of equipment and transfer of funds etc.

In this juncture of time, there came telephonic message from the district level functionaries or OSDMA, mostly of the PRI members and Office Bearers of MPCS that the approved equipment supply to MPCS is expected any time in coming days. They are told to stay vigilant for receiving the assets. The research team members guided by the Director, School of Disaster Management, CUTM availed the scope to witness the arrival of rescue materials in truck load in one of the MPCS at Bania village which is also the panchayat headquarters. Fortunately, the Sarpanch and the Secretary were in the FGDs being conducted by the researchers. On the request of office bearer, the researchers also reached at the MPCS campus and observed some of the rescue kit being received by the committee. The materials included things like mega phone, Almirah, ropes, big aluminium lader, furniture, etc. The checklist of materials supplied, carried the heading as "Material supplied by agencies (M/s Tirupati Rickshaw Traders, Nagpur) approved by OSDMA. Gradually, there was a huge crowd gathered at MPCS out of curiosity. Most of them promptly supported physically to unload and store the materials in the premises of the MPCS at first floor. It was interesting to observe the Sarpanch who suggested his counterpart to match the particulars and type of materials as specified in the checklist.

When the research team were on the way to block headquarters, they happen to meet with the Secretary of Bania MPCS who was found with about 8 sets of lock and keys purchased from Khallikote market. When probed for more information, he mentioned that it is their duty to guarantee safety of rescue materials henceforth. That's why the Sarpanch paid the amount and insisted locks to be in place with the rooms. Furthermore, the Secretary mentioned that the multiple master key set will be kept at multiple level with greater responsibility. It should be expected that a meticulous safety and maintenance measure to be introduced with a series of interaction meetings at different MPCS by senior functionaries whereby the interest and delightful state of mind of community members as a whole will be kept undisturbed as a mark of healthy disaster preparedness measures. All appreciations are coming from the panchayat and block level to OSDMA and IGSSS for helping the community get equipped with approved rescue materials.



# STUDY TOOLS

**ASSESSMENT OF MULTIPURPOSE CYCLONE SHELTERS  
CONSTRUCTED BY OSDMA AND IRCS IN GANJAM DISTRICT OF ODISHA**

***Household questionnaire: Parents/Adults***

Questionnaire Sl. No. 

--	--	--

Name of the Respondent: \_\_\_\_\_

Village : \_\_\_\_\_

Ward/ Revenue village : \_\_\_\_\_

Q.NO	QUESTIONS	CATEGORY	CODE	SKIP TO
<b>Awareness of Cyclone Shelter</b>				
Q1	Are you aware of the cyclone shelter in your community?	Yes	1	
		No	2	Q9
Q2	Where is it?	Within village	1	
		At the fringe of the village	2	
		Outside village (near)	3	
		Outside village (far)	4	
		Outside village (another village )	5	
Q3	How far is it from your house?	Within 200 metre	1	
		Between 201 mtr. and 500 mtr.	2	
		Between 501mtr. and 1.00 km	3	
Q4	Do you know how to get into there?	Yes	1	
		No	2	
Q5	How will you go there?	On foot	1	
		By cycle	2	
		By motor bike	3	
Q6	Do you think you can access to the cyclone shelter all year around?	Yes	1	Q8
		No	2	
Q7	If your answer is no when do you think it is not accessible	Summer	1	
		Rainy	2	
		Winter	3	
Q8	Why?	Flooding	1	
		Road is destroyed	2	
		Others(specify)_____	9	
Q9	If a strong cyclone occurs again, where would you go to make you and your family safe from its danger?	Own house	1	
		Friends or relatives home	2	
		Cyclone shelter	3	
		School cum cyclone shelter	4	
Q10	Please give reasons for going there	Strong structure	A	
		Easily accessible	B	
		Near proximity	C	
		Higher than other places	D	

		Others (specify) _____	O	
Q11	What do you think are available in the shelter ?	Drinking water	A	
		Food	B	
		Emergency power	C	
		Phone	D	
		Rescue materials	E	
		Sanitation kits	F	
		Kitchen items	G	
		Signal light	H	
		Boats	I	
		Life jackets	J	
		Blankets	K	
		Other _____	O	
Q12	Do you know there is a shelter management committee?	Yes	1	
		No	2	
		Don't Know	3	
Q13	Do you know there is a schedule for regular maintenance work?	Yes	1	
		No	2	
		Don't Know	3	
Q14	Would you be willing to contribute for regular maintenance of the shelter?	Money	A	
		Labour	B	
		Materials	C	
		Others(specify) _____	O	
Q15	The shelter is served for	Only people	1	
		Both people and livestock	2	
Q16	Is the shelter accessible to persons with disabilities?	Yes	1	Q18
		No	2	
Q17	If No, why, give reasons			
Q18	Is there any permanent display board?	Yes	1	
		No	2	Q20
Q19	If yes are there any emergency contact of the following	Village leader	A	
		Police station	B	
		Hospital	C	
		Fire brigade	D	
		Red Cross	E	
		OSDMA	F	
		Shelter care taker	G	
Q20	Are there any sign of the following	Location of the map	A	
		Limitation within shelter	B	
		Maximum occupancy	C	
		Emergency exit	D	
		Escape route	E	
		Access of disabilities	F	

							Hand rails	G	
Q21	How many storeys in the shelter		_____						
Q22	Areas of the shelter (square feet )		_____						
Q23	How many rooms/ halls		_____						
Q24	Room width and length (in feet)		_____						
Q25	Are there toilets in this cyclone shelter?		Yes				1		
			No				2		
Q26	If yes number of toilets		_____						
Q27	Separate toilet for women		_____						
Q28	Water supply availability		_____						
Q29	Please describe the current condition of the shelter		Usable				1		
			Usable only in some section of the shelter				2		
			Need repairs for use				3		
			Under repairing				4		
Q30	Current condition of the shelter cleanliness		Satisfactory				1		
			Not Satisfactory				2		
Q31	Doors and windows status		<b>Doors</b> Total Number: _____ Needs repair : _____ <b>Windows</b> Total Number : _____ Needs repair : _____						
Q32	<b>Crack/Losing plaster</b>	<i>Ceiling</i>	<i>Wall</i>	<i>Column</i>	<i>Beam</i>	<i>Other</i>			
	Crack								
	Losing Plaster								
Q33	Do you have Shelter management committee		Yes				1		
			No				2	END	
Q34	If yes how many are there in the committee		Men : _____						
			Women : _____						

Signature of the Interviewer: \_\_\_\_\_ Date: \_\_\_\_\_

General Observation of the Interviewer:
---



### **Capacity**

1. People from which villages/area do you think would come to seek refuge shelter in the wake of a cyclone/storm surge? (also ask the name of these villages)
2. What would be the total number of people who might be seeking refuge at the cyclone shelter?
3. If the shelter cannot accommodate all those who would want to seek refuge there, what is the plan of the community?
4. What would happen to those who do not have a chance to seek refuge there?

### **Accessibility**

1. How do you feel about the location of this shelter?
2. Is it within your reach all year round? Why?
3. If people cannot have access to the shelter in certain months of the year, what are the barriers and how should they be overcome or Is there no way to overcome these barriers? Why?
4. Do you think the shelter is also accessible to vulnerable populations such as children, elderly and the persons with disability? (If you have time for 6 hours) Why?
5. Do you think the shelter is also accessible to vulnerable populations such as children, elderly and the persons with disability? (If you have time for 6 hours) Why?

### **Perception**

1. How important is this cyclone shelter for you and local people (in times of emergency and normal time)? Why?
2. How much do you feel safer for having this cyclone shelter in your village? Why or why not?
3. What about for children, elderly and the persons with disability?
4. How do you describe the current maintenance condition of this cyclone shelter? How could it be improved?
5. Are you willing to contribute to the maintenance of this cyclone shelter? How?
6. What other (community) buildings do you think could be turned into cyclone-resilient structure? Why? How? How much do you think will it cost?
7. What do you suggest for making your community more disaster resilient? Or what do you think should be done to improve the community's feeling of safety?
8. What are the lessons learnt from having this cyclone built in your community?

## **ASSESSMENT OF MULTIPURPOSE CYCLONE SHELTERS CONSTRUCTED BY OSDMA AND IRCS IN GANJAM DISTRICT OF ODISHA**

### **INDEPTH INTERVIEW WITH DISTRICT LEVEL & BLOCK LEVEL OFFICIALS**

- We would like to know about the number of cyclone centres in your district/block constructed by OSDMA &. IRCS.
- In your view are all people dwelling around fully aware about it. How is such message conveyed to them?
- What are the bottleneck or gaps?
- To what extent people have access in the event of disaster?
- What is your view about availability of disaster management plan at grassroots level & issues associated with this?
- Do you feel that cyclone centres could accommodate targeted people in the event of disaster? What are the next best shelters in the adjacent area?
- Is there any problem associated with accessibility, casteism, social exclusion?

#### **Functionality aspects**

1. Electricity, water supply, door & windows indicating privacy & security.
2. Preference for vulnerable sections.
3. Availability and maintenance of rescue equipment?
4. In your opinion how important are these cyclone centres in the lives of people who are prone to disaster?
5. What is your feedback on monitoring and supervision, extent of community interfaces from time to time, transect walk to affirm functionality of structures.
6. Any mechanism introduced to review status of CSs at district/ block level.
7. Do you think that the shelter centre in your village has added value to the coping mechanism of this community in any event of disaster that might occurred in any time in future?
8. We would request your valuable feedback and suggestions on improving structures and participation of community as a whole.

Thank you for your views and feedback.

## Infrastructure Assessment Form

Name of the inspected NGO:

Date of visit:

Name of the MCS/ MFS:

Name of the Village:

Name of the Block:



Shelter level Tools, Equipment & Accessories (TEA)					
Sl No.	Equipments	Stock Position			
		Planned (in no.)	Existing (in no.)	Receiving Date	Condition (U-RR-D)
1	Generator	2			
2	Lifebuoy	2			
3	Life Jacket	2			
4	Foldable Stretcher	1			
5	Pulley	1			
6	Big rope	2			
7	Middle rope	11			
8	Nylon rope	4			
9	Small rope	21			
10	Tower Light	2			
11	First Aid Box	1			
12	Wood Cutter	2			
13	Mat (Dari)	1			
14	Aluminum Ladder ( 30 ft)	1			
15	Water Filter	1			
16	Safety Spectacle	1			
17	Gum Boot	2			



18	Notice board	1			
19	Black board	1			
20	Gloves	2			
21	Plastic Chair	5			
22	Inflatable Emergency light -Aska light	2			
23	Rain Protection Cover	2			
24	Wind support set	2			
25	Tool kit	2			
26	Lamp with requisite control gear	2			
27	Blower	2			
28	Trolley	2			
29	Storage Box	2			
30	Water tank (200 ltr)	1			
31	Mass Kitchen Utensil Set	1			
32	Hand held Megaphone	1			
33	Siren	1			
34	GI Trunk	1			
35	Radio	1			
36	Search Light	1			
37	Rope Ladder	1			
38	Fire Extinguisher	1			
39	Solar Lantern with charger	1			
40	Flexi water tank (100Ltrs)	2			

**N.B: U-Usable / RR -Requires Repairing / D - Damaged or Defunct**

Source of Electricity Supply :

Status of Toilet :

Status of Pump (water ) :

**Major Issues:**