



KERALA FLOODS JOINT DETAILED NEEDS ASSESSMENT REPORT

2018

Multi Sector Joint Detailed Needs Assessment (MS- JDNA)

As per Sphere India Inter Agency Coordination Standard Operating Procedures (SOP)

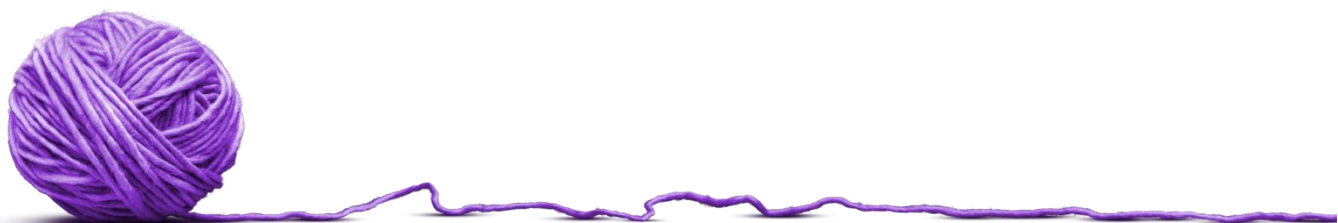
- Joint Rapid Needs Assessment (JRNA) is conducted within 72 to 96 hours of the disaster aiming at first 3 to 4 weeks of emergency response needs across sectors.
- MS-JDNA is conducted after 3 to 4 weeks of the onset of disaster based on a sample survey, Focus Group Discussions (FGDs) and key informant interviews aiming at analyzing recovery needs as 3 months, 6 months and 1 year
- Post Disaster Needs Assessment (PDNA) is a comprehensive damage and needs assessment aiming at analyzing complete rehabilitation, reconstruction and recovery needs.

Disclaimer:

The interpretations, data, views and opinions expressed in this report are collected from various sources including Government of Kerala, NDMA/Government of India, Inter-agency field assessments, organisation level assessments and from media sources. It does not necessarily carry the views and opinions of any humanitarian organisation or Sphere India (National Coalition of humanitarian agencies in India) as a collective directly or indirectly. It is interpreted only for assessment purpose.

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Kerala Floods Joint Detailed Needs Assessment Report

IN THE AFTERMATH OF THE FLOODS IN KERALA | SEPTEMBER 2018



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Acronyms

AAY	Antyodaya Anna Yojna Ration Card
AHD	Animal Husbandry Department
CFW	Cash for Work
DRR	Disaster Risk Reduction
IAG	Inter-Agency Group
ICTI	International Centre for Technological Innovations
IGSSS	Indo-Global Social Service Society
KII	Key Informant Interviews
KSDMA	Kerala State Disaster Management Authority
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
NDRF	National Disaster Response Force
NGO	Non-Government Organization
NPHH	Non-Priority Household Ration Card
NDMA	National Disaster Management Authority
NDRF	National Disaster Response Force
NDRT	National Disaster Response Team
NFI	Non-Food Items
NGO	Non-Government Organization
NIDM	National Institute of Disaster Management
PDS	Public Distribution System
PRI	Panchayati Raj Institutions
SC	Schedule Caste
SDRT	State Disaster Response Team
SHG	Self Help Group
SRC	Special Relief Commissioner
ST	Schedule Communities
UCT	Unconditional Cash Transfer
UN	United Nations
UNDP	United Nations Development Programme
VDMC	Village Disaster Management Committee
WASH	Water Sanitation and Hygiene

1. Executive Summary

With the state receiving 758.6 mm rainfall between 1st August and 19th August, 164% more than the average of 287.6 mm, Kerala faced unprecedented flooding. Kerala received 42% more rains than usual since the onset of the Monsoon in June. By mid-August, there had been 2346.3 mm of rainfall instead of an average of 1649.55 mm. The highest rainfall was in Idukki district, which received 92% more rains. This was followed by Palakkad, which received 72% more rains. The unprecedented rainfall coupled with ensuing floods and landslide had brought Kerala to standstill in the month of August 2018. In all 474 people have been reported to have died, 12.47 lakh people were displaced, and around 20,000 houses seriously damaged.

The Government of Kerala with the support from NDRF, Army, Navy and Air Force worked tirelessly for providing rescue and relief support to the affected population. As per KSDMA in span of 30 days between 1st august to 30th august 339 human lives were lost while 3.4 million people were there in around 12300 relief camps. 10319 houses got fully damaged and over 1 lakh were partially damaged. Over 10,000 KMs of major roads were washed away and 16000 hectare of land was lost. Along with the Government agencies, several civil society organizations, students groups, INGOs and NGOs are responding to the immediate worst affected accessible areas in 9 districts namely Alappuzha, Idukki, Pathanamthitta, Ernakulam, Thrissur, Kozhikode and Wayanad besides parts of Kannur, Palakkad, Malappuram, Kottayam and Kollam.



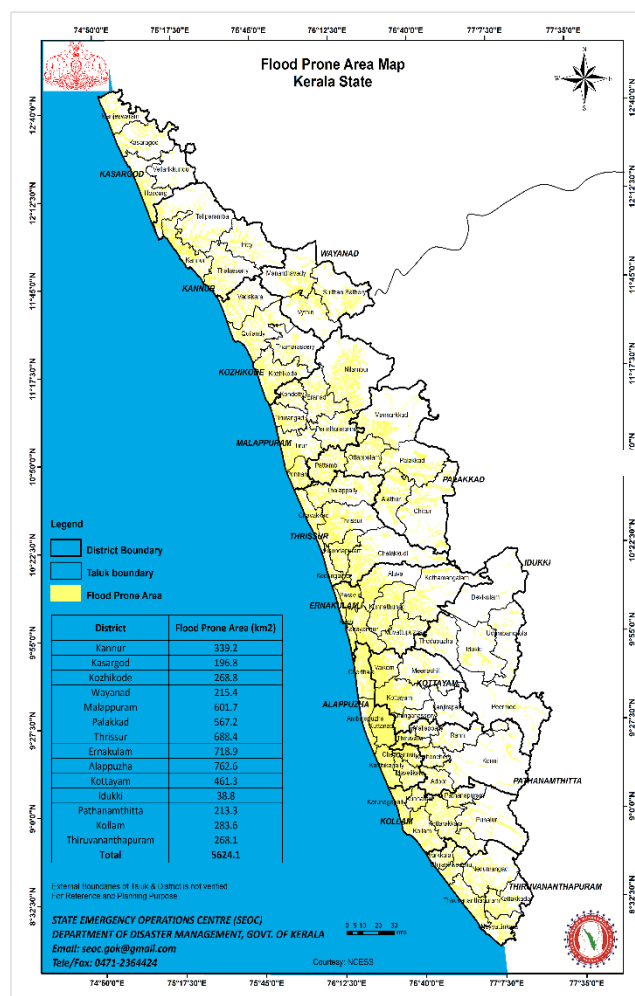
2. Background

The unprecedented rainfall led to massive floods causing death, displacement, and destruction that may take years to rebuild. There has been extensive destruction of roads estimated at 83,000 kilometres blocking early efforts in movement of relief materials and supplies. It has been reported that 221 bridges were seriously damaged, some of them had been washed away.

A series of landslides across the Western Ghats in Idukki, Wayanad, and Palakkad districts added to the impact. Several parts of these districts were left isolated by the landslides. Water pumping stopped in several drinking water projects that depended on rivers adding a drinking water crisis to the problem.

Schools were closed and many were converted into relief camps. A state wide red alert was declared for days during the peak of the floods. Kochi international airport was flooded and damages stopping its functioning, and Kochi metro had to stop operations. Trains were suspended and road transport was disrupted in the flood hit regions. Thousands of hectares of agricultural land with crops in different stages were washed away. These included thousands of hectares cultivated by joint liability groups of women under different schemes. Along with farming, numerous types of different livelihoods have been affected.

The water levels in most of the affected districts have receded although some low-lying areas in Kuttanad continue to be



inundated. While most displaced communities have returned to their homes and started cleaning their homes and trying to rebuild their lives, there are still a few people continue to live in the relief camps as their houses have been completely destroyed/ unfit to live or continues to be in water. The local administration is supporting all affected people who are in the camps. Dry ration, vegetables, health packages, drinking water, sanitation facilities are being supplied. The ICDS is active and they are providing all support to the children in the affected areas.

The table below gives details of the areas that were notified as flood/landslide affected till 29th August 2018.

Total Population of Area Affected		35 million
Male		16,027,412
Female		17,378,649
Total Child Population (0-6 Age)		3,472,955
Male Population (0-6 Age)		1,768,244
Female Population (0-6 Age)		1,704,711
Reported Deaths		504 due to floods and landslide; 147 due to leptospirosis ²
Overall Affected Population		Estimated at 23 million
Overall affected Children		Estimated at 07 million
Severely affected Population		3.4 million were in relief camps
Severely affected children		0.3 million
Estimated financial loss		21,000 crore INR (approx. 3 billion USD)
Total		

3. Relief Measures and GO-NGO Coordination

During floods the heroic efforts of the fishermen who rescued more than 65,000 marooned people from some of the worst affected districts and the efforts of the rescue teams from the National Disaster Response Force (NDRF), Indian Army, Navy and the Air Force who evacuated marooned people using boats and aircrafts along with the Government officials, elected representatives and women and youth volunteers showed the resilience of the communities to come together to help each other. The self organising, self driven innovative solutions using inter operable technology platforms, mobile applications, web portals and virtual army of IT savvy youth who designed, developed and implemented innovative solutions to fast track search and rescue, evacuation and monitor rehabilitation and relief distribution etc. showcased several good practices.

- The structured efforts of the state government under the leadership of the Chief Minister has been able to

mobilise Rs. 1620.51 Cr in CMDRF through donations from individuals and groups.

Indian Army, Indian Navy and Indian Air Force have led and contributed to the largest disaster recovery operation. This operation spanned over 16 days and rescued more than 50000 people all over the state. The Indian army also restored temporary access to 26 bridges and many inaccessible roads.

- The Southern Naval Command dispatched four diving teams with dinghies and one Sea King helicopter to Wayanad district to render assistance to the local population. Teams have been augmented by Gemini boats, divers and other resources from both Eastern and Western Naval Commands of the Indian Navy. 92 diving teams have

been deployed at various locations across the affected districts.

- NDRF also contributed to the rescue and evacuation of 535 and 24,000 respectively. 119 animals were also rescued by the force.
- State level forces under 'Operation Jal Raksha' engaged 40,000 police personnel, police boats, coastal police boats, marine commandos, women battalions, coastal police, State Disaster Response Force members who actively participated in immediate evacuation and emergency food aid. Kerala Fire and Rescue Services have deployed 3200 members of the force for rescue operations. A 24 hour control room was opened in Secretariat for coordinating relief and rescue activities.
- Kudumbashree has provided food and collected relief materials from all possible areas and distributed in camps. The cleaning drive was undertaken cleaning of 1.13 lakh residential premises and 3100 public spaces across 10 districts. Each cleaning team had about 20 to 25 women equipped with bleaching and cleaning lotions. A total of 320 Community counselors of Kudumbashree have offered psychological support to over 11,000 affected people. They have also contributed to improved local level coordination. The Kudumbashree members have contributed their one week's savings amounting to Rs.7 Crore to CMDRF.
- The local fishermen of Kerala undertook rescue operations

regardless of torrential rain. They did not think of their safety, their families or any monetary gains from the government as they joined rescue mission. Over 669 boats went out with 4537 fishermen, and they have saved at least 65000 lives.

- As of date, Union Government has supplied 73 MT of essential emergency drugs including 1000 injection Adrenaline vials; 2.25 crore Chlorine tablets (one tablet for chlorinating 20 L of water); 80 MT of Bleaching powder, and 4 lakh units of Sanitary Napkins to the state government besides 1000 liters of Cyphenothrin 5%, 500 kg of Diflubenzuron 25% and 250 litres of Malathion (Tech).
- NIMHANS, Bengaluru has already deployed a 40-member psycho-social team (Psychiatrists, Psychologists and Psycho-social workers), one team for each of the 14 districts for rapid psycho-social assessment and community -based psycho-social care.
- As per the request received from the state, the Government of India sent 30 specialist doctors, 20 General Duty Medical Officers and 40 Malayalam speaking nurses. Also, 12 public health teams, each comprising of 1 public health specialist, 1 microbiologist and 1 entomologist were deployed to assist the State health department in various public health measures.
- Kerala flood relief operations have shown a resurgence of solidarity among people. People from different sections of the society, including students, politicians, groups, NGOs,

Government officials and activists have come forward and participated in various relief and rescue activities.

- Collection and distribution of relief materials was one of the major tasks carried out by the volunteers from all walks of life from within and outside the state. Thousands of volunteers relentlessly worked for several days to restore normalcy in Kerala.
- Social media platforms were used to reach out to the people, to spread awareness, and also to curb the spreading of fake news. Social media platforms became control rooms overnight for relief coordination needs of the state.

4. Field Assessment

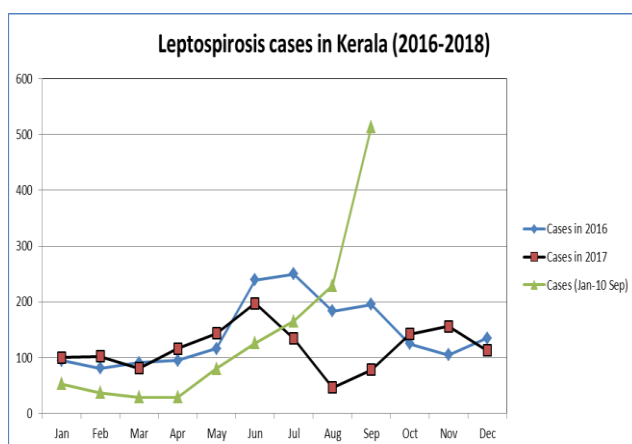
Sphere India coordinated a Multi-Sectoral Joint Detailed Needs Assessment (JDNA) in the 10 worst affected districts namely Alappuzha, Ernakulam, Idukki, Kottayam, Kozhikode, Malappuram, Palakkad, Pathanamthitta, Thrissur and Wayanad in 11 sectors each led by one of the Sphere India sector expert organisations. The objective of the assessment was to analyse the extent and impact of the disaster in the core sectors of WASH, food security, nutrition, shelter, health, education, gender, livelihood, protection, heritage etc. The outcomes of the assessment are presented in the following sections.

S.L No	Name of the District	No of Household Covered	No of Village Covered	No. of GPs Covered	No of FGDs Completed
1	Alappuzha	80	08	10	02
2	Palakkad	95	10	10	10
3	Malappuram	106	10	10	10
4	Idukki	81	08	06	08
5	Ernakulam	77	08	06	05
6	Thrissur	65	08	05	08
7	Kottayam	66	08	06	
8	Wayanad	88	10	05	06
9	Kozhikode	80	08	04	08
10	Pathanamthitta	80	08	04	08
TOTAL		818	86	66	65

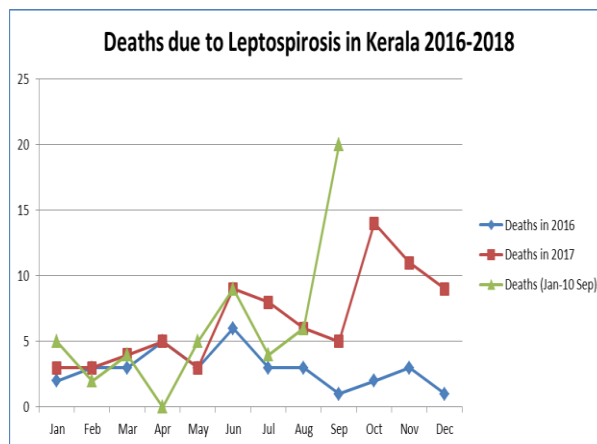
5.1 HEALTH

Key Findings

- Patients of NCD (Diabetes & Hypertension) have lost their medications and medical records. Drugs were not available to them.
- Patients of chickenpox are increasing due to crowding at homes.
- Fear of spread of leptospirosis, malaria and dengue leading to high OPD load in most of hospitals. More load in the evening
- Children are prone to malnutrition in district with relatively high rates of malnutrition (Wayanad / Palakkad)
- Sleep disturbance and mental health problem noted in many districts
- Diarrhoea cases also coming in large number in all hospitals and camps



The leptospirosis cases have increased 2 fold this September than previous 2 years: 2016,2017



Comparable number of deaths in Kerala, still higher than the previous years.

Key Recommendations

- Availability of NCD drugs needs to be improved
- Evening OPD & Lab tests throughout the day especially in evening
- Restart & recovery of all Anganwadis as soon as possible
- Mental health services in district hospitals needs strengthening
- Nutritional & Health assessment of Pregnant Women and lactating mothers & Children in districts with vulnerable population (Tribal, fishermen & Dalit)
- WASH condition needs urgent intervention e.g cleaning of wells & decontamination of drinking water sources
- Districts with high malnutrition rate and major infrastructure damages require Vitamin A supplementation for all children between 9 months to 5 years.
- Restoration of routine Immunization Services as soon as possible in all the districts especially in forest areas.
- Detailed assessment of each health facilities for damage and functionality post floods is urgently required.
- Vulnerability assessment of all health facilities towards floods and cyclones.
- Training of health workers on nutritional assessment and treatment of malnourished children in communities and inside health facilities.

5.2 Gender Analysis

Key Findings- Overall assessment findings indicate that women, girls, children, elderly people, disabled, people with prolonged illnesses are most vulnerable. Lactating mothers and pregnant women with less/no care and no special attention for their specific needs is making them more vulnerable.

Head of Household

Based on survey response, 70% of the families had male heads of households and approx. 30% had female heads of households. Transgender head of household was seen only in one household.

Gender Based Violence

There were no cases of gender-based violence reported by the persons surveyed. In certain areas such as Thiruvalla in Pathanamthitta, adolescent girls shared that they feel uncomfortable due to comments from boys when they go out in public places. In another village girls shared about their fear of trafficking. Their parents do not allow girls to play in public places. They are however allowed to go to school. Some girls and boys have stopped going to schools as their school material has been lost.

Perceived risk to children

The greatest concern of more than 40% of families is the safety of girl children. Others were concerned about safety of both boys and girls while traveling alone due to incidents against children and danger from wild animals. There were also concerns around damage from shelter. 5% of the respondents confirmed that there were incidents of violence and abuse against children that they are afraid of.

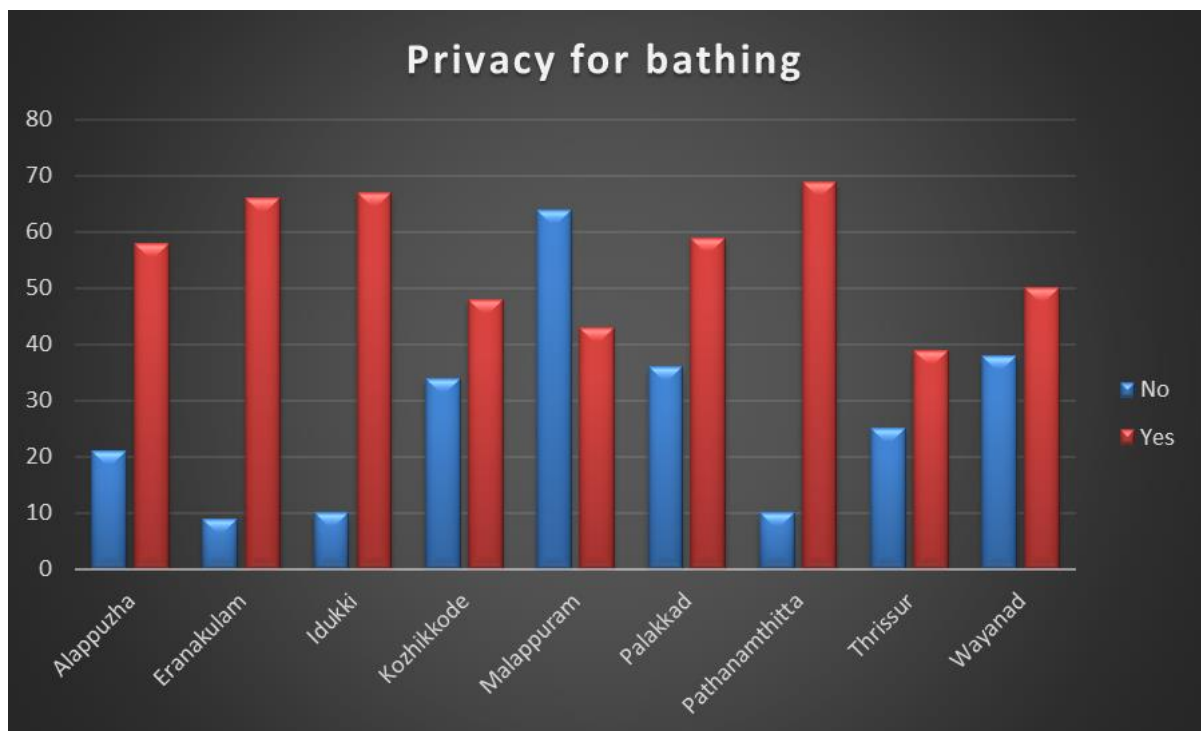
The focused group discussions with children groups also revealed that many children are scared that they can be hit by floods again. Some are concerned about how long it will take for their family to recover. They want to watch television but TV has been broken/damaged due to floods.

Involvement in Income generation activities

Women shared that men are involved in construction work and women lack the skills to undertake major household repairs and construction. This will impact negatively the elderly, widows and female headed households. They may be unable to purchase or transport shelter materials and tools or draw on the labour needed to help them rebuild or repair houses. Cleaning their house once they go back will be also difficult for this group of women.

Privacy for Bathing

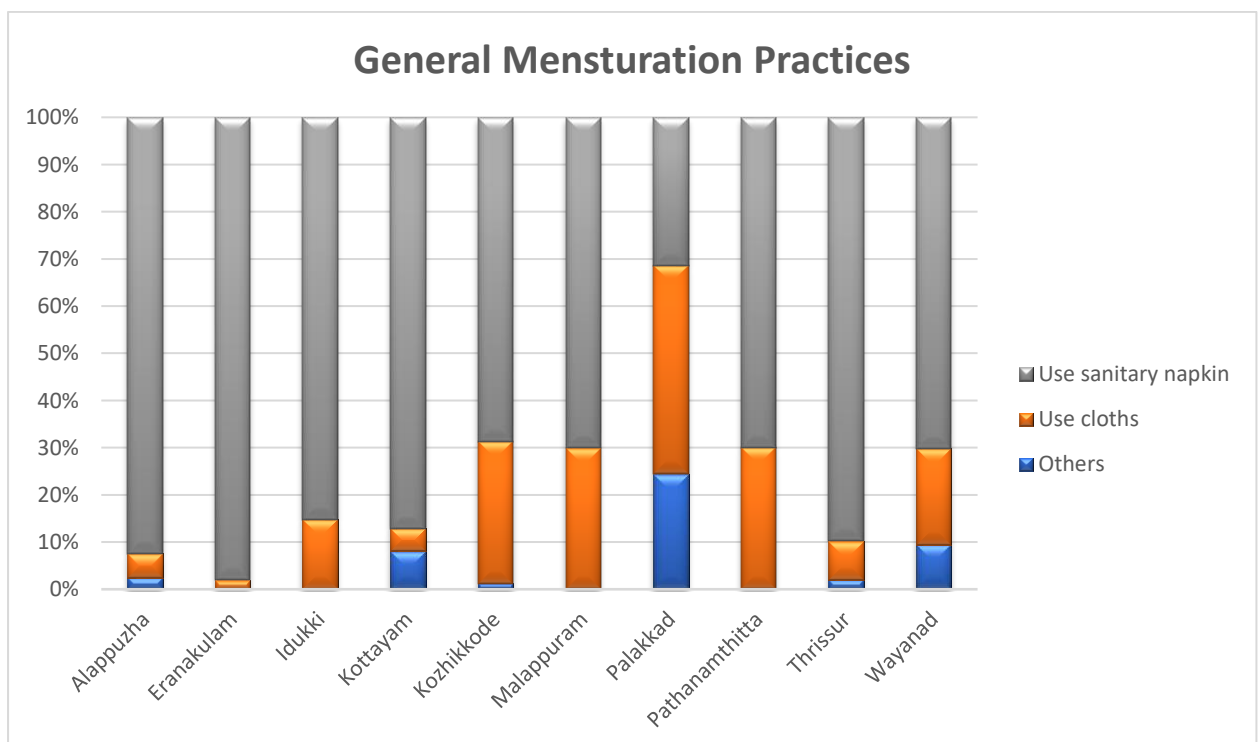
Post floods in Kerala, the private spaces for bathing have also been affected and women and girls are facing a challenge. Women and adolescent girls are facing a challenge due to lack of private space for latrine. 34% of respondents do not have access to private space for latrine, and another 30% do not have adequate space for bathing. To maintain personal menstrual hygiene, more than 70% of women and girls in reproductive age use sanitary napkins, while the rest use cloth and



other material. A district wise analysis shows that the challenge of privacy for bathing is highest in Malappuram, Wayanad and

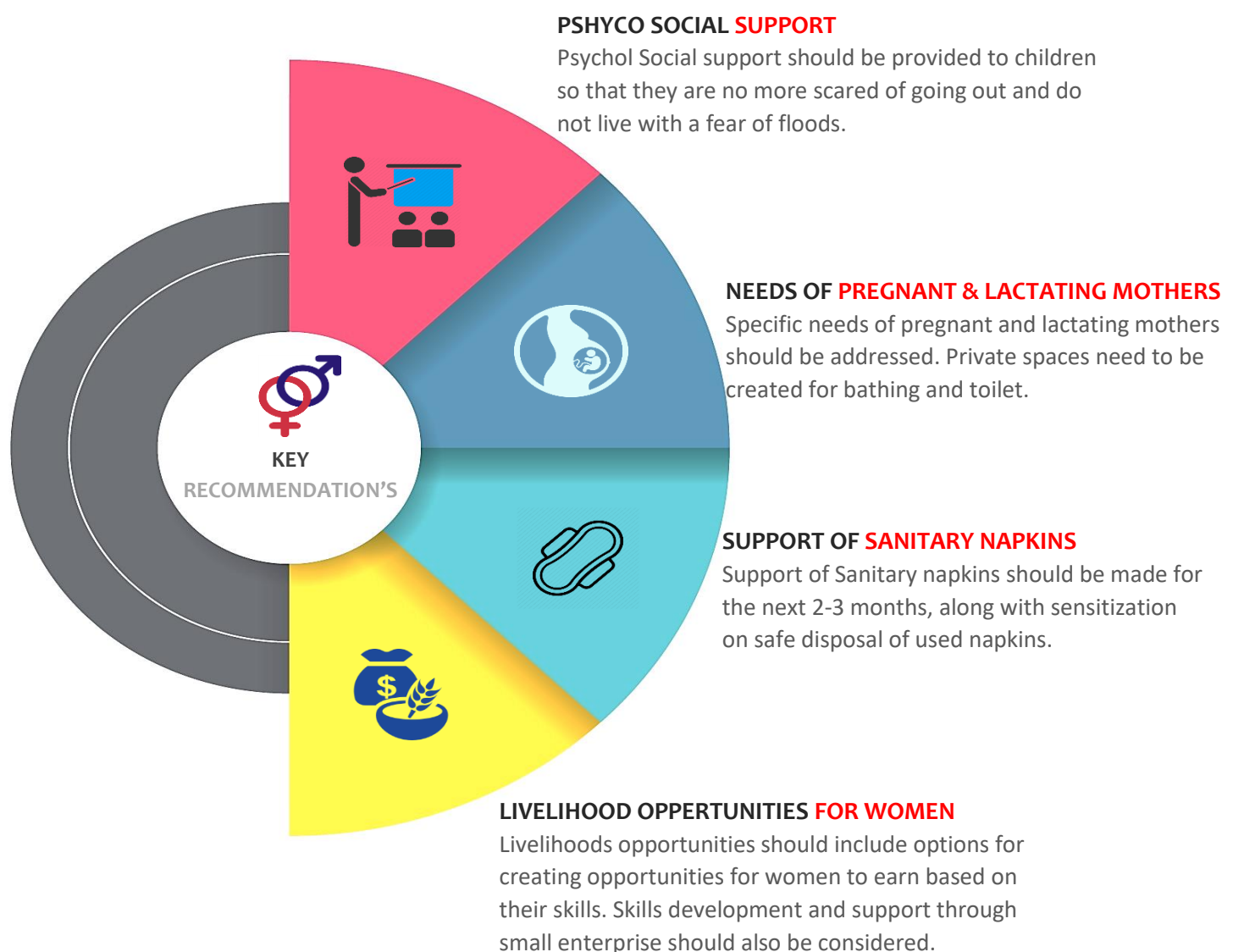
Palakkad followed by Kozhihokde and Alappuzha.

Personal Hygiene: Women and girls in reproductive age are the struggling to maintain personal menstrual hygiene as the sanitary napkins received as a part of relief assistance are used and more are required. Some have not received any assistance and are managing with cloth.



Menstruation Practices: In majority of families women and girls use sanitary napkins. However, there was also a difference in practice observed in certain age groups. It was observed that most of the adolescent girls were using sanitary napkins while some women above the age of 40 were using cloth for menstrual hygiene purpose. The use of cloths and other material was highest in Palakkad, while the use of sanitary napkins was highest in Ernakulum, Alappuzha and Thrissur.

Disposal of sanitary napkins and used cloths: Majority of respondents shared that the used sanitary napkins are thrown in heap of solid waste or household waste. Approximately 10% also shares that they throw the use napkins in water and damp marsh in the village surrounding. A small number also burn the cloth and napkins post use.



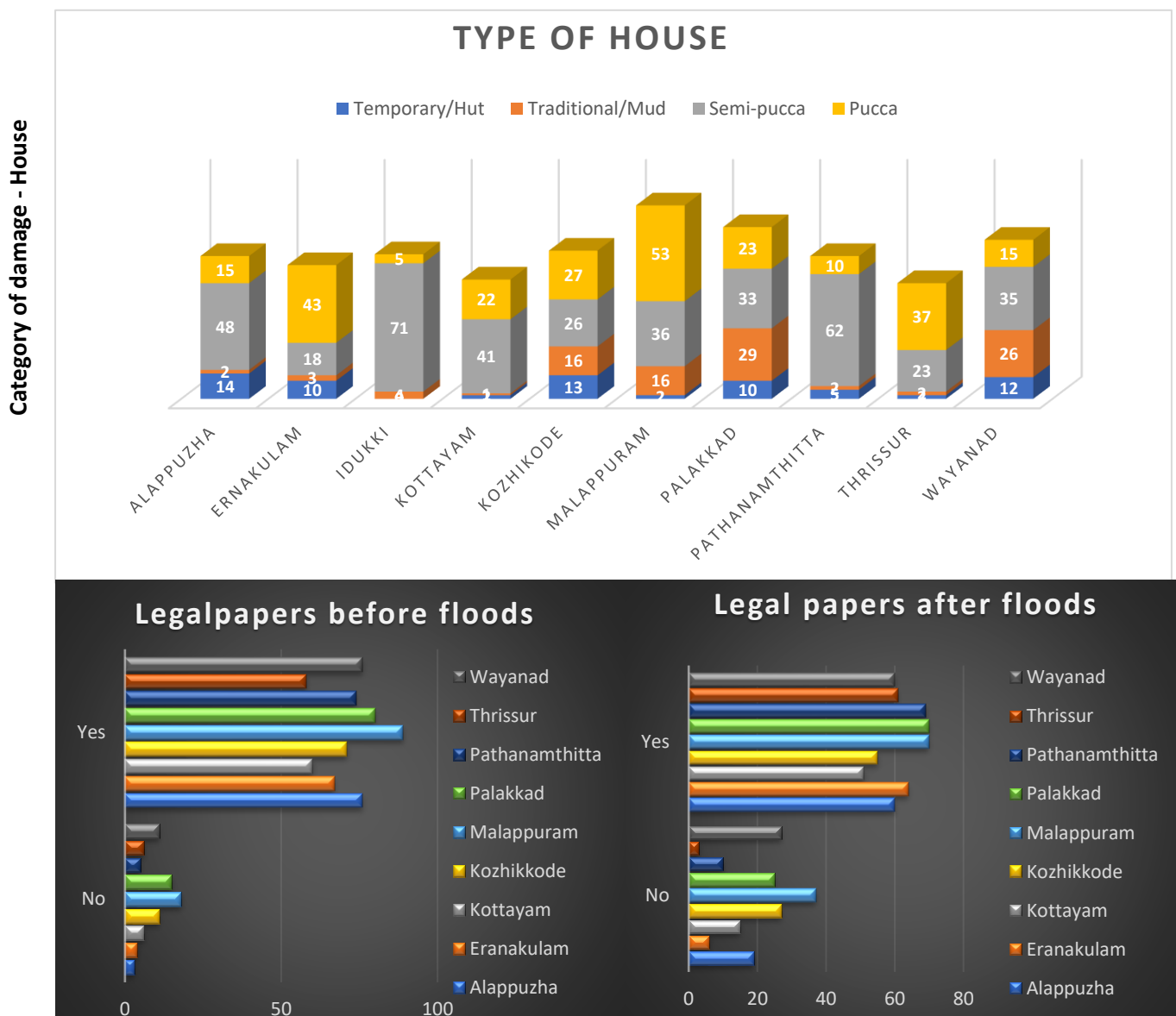
5.3 Shelter

Floods in Kerala have impacted shelter in various ways. The impact ranges from complete collapse of house to partial damage and minor damage. Following floods since most of the people have returned to their homes from relief camps, they have initiated repair and rebuilding activities. The poor and marginalized groups however, need assistance to help them recover from the impact of flood.

Type of houses: Before floods, the affected population in the areas surveyed, were living in different types of houses. Overall, based on the survey 21% of houses in affected areas

were traditional mud houses/huts. 48% were semi-pucca, and 31% were Pucca houses.

District wise analysis of types of houses in areas having highest impact of floods shows that highest number of temporary huts and houses made of traditional mud are in Wayanad, Palakkad and Kozhicode. The highest number of floods affected Semi-Pucca houses are in Pathanamthitta and Idukki followed by Alappuzha. Highest number of Pucca houses in flood affected areas were found in Malappuram, Ernakulum and Thrissur.

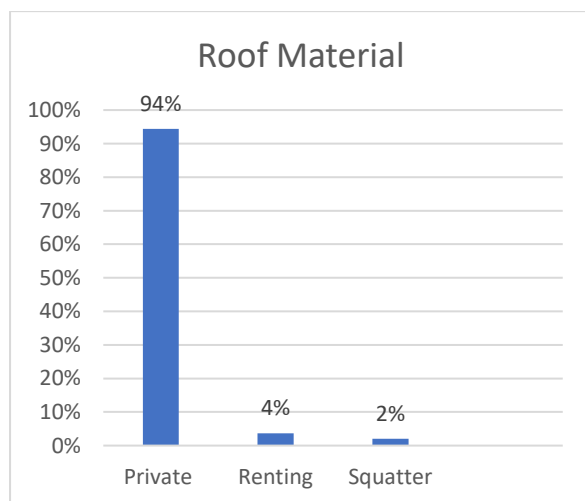


Land Ownership: One of the important aspects of shelter is ownership of land. As per the survey findings, 12.5% (102 HHs) had legal papers before floods but have lost their papers post floods. not now. 10% of respondents did not have legal papers of the land before floods.

Post floods, additional 12% lost their papers hence the total percentage of affected people without legal papers of the land are 22%. Approx. 85% of the houses are privately owned, while the remaining 15% were either staying in rented accommodation or squatting. Generally, men are the owners however, in certain cases joint titles also exist.

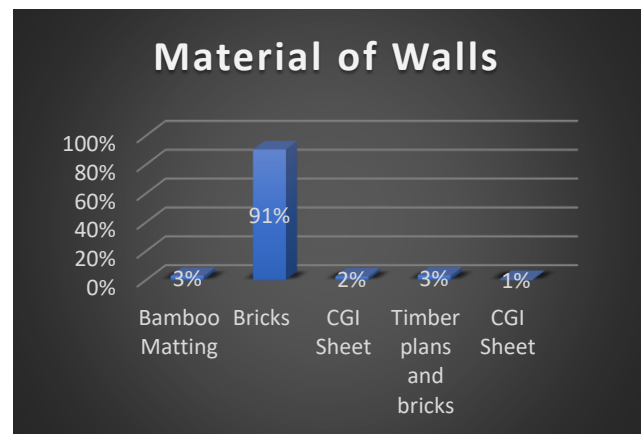
Roof Material:

Most of the houses had either CGI roofs or Thatch roof. 14% of respondents also shared that the roof materials of their house was concrete.



Amongst the respondents who shared that the house roof material was made of other material they material being used included Asbestos, brick masonry, bronze, clay tiles, Oduu (traditional clay tiles), plastic sheeting/ flex material and Olappura (Leaf thatch).

Material of Walls



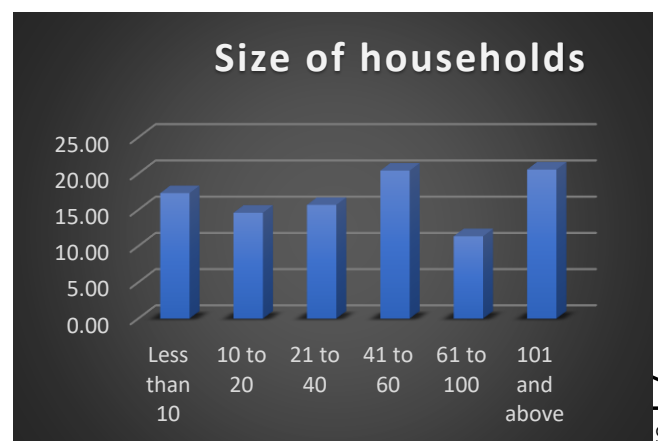
Walls of most of the shelters (91%) were made of bricks. Other material used for walls included bamboo matting, CGI sheets and timber planks.

Frames: Most of the houses (64%) had concrete posts as frame material. Besides concrete posts the other material used for frames was timber and mix of bamboo and timber.

Material used in Flooring and Foundation

For flooring, concrete, brick masonry and timber was used in shelters of the respondents of the study. For foundation of houses, approx. 50% of houses used brick masonry, while the others had used concrete.

Size of house



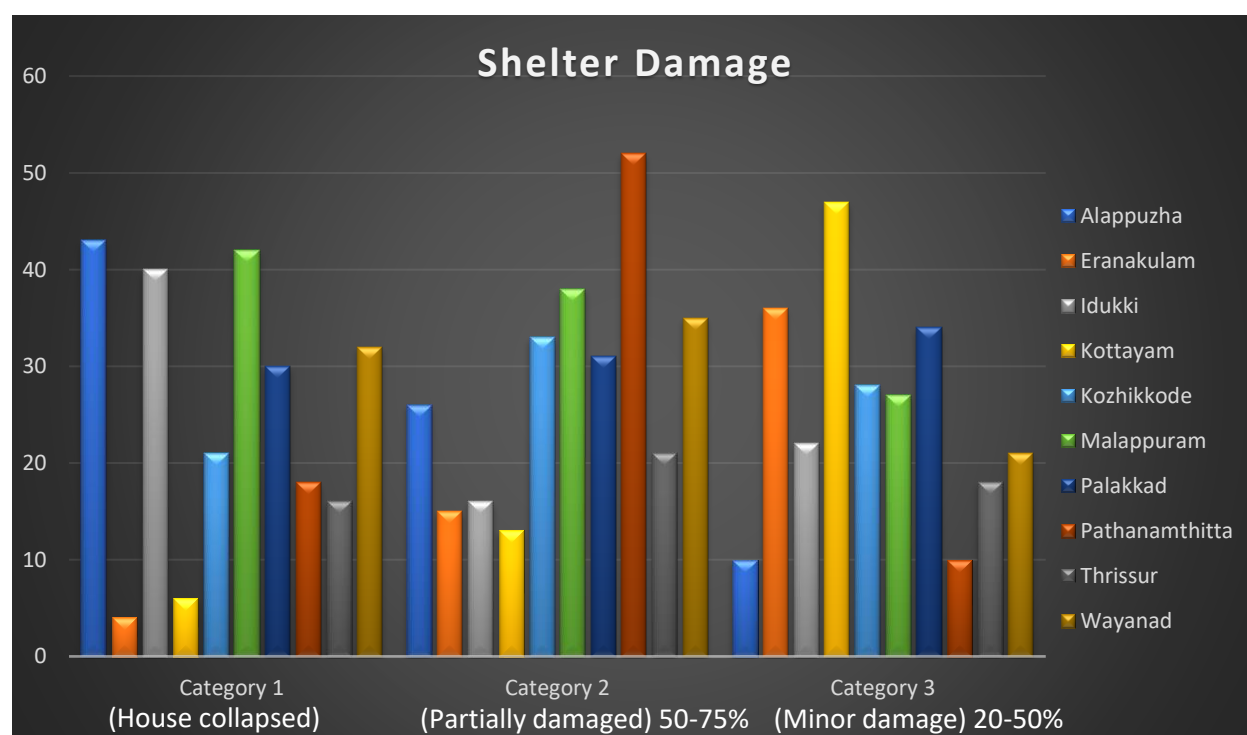
There is significant variation in size of houses in affected areas, with the smallest huts built in less than 10 sq yards to some houses above 100 sq yards area.

Shelter support should include a menu of options from provision of material and technical support to labour and cash, along with rental support

Damage to individual Shelter: 33.6% of the houses surveyed were completely collapsed, and another 35.2% were partially collapsed. These houses will require reconstruction and major repair work. Besides these, 28.7% houses had received minor damage. 20% of respondents believe that their house is under threat of eviction stating reasons such as bank loan, full collapse of house and significant cracks making it unsafe to live in the same house.

Category	Number of respondents	Percent
Category 1: House collapsed (100%)	275	33.6
Category 2: Partially collapsed (50% to 75%)	288	35.2
Category 3: Minor Damage (20% to 50%)	235	28.7
Information not available	21	2.6
Total	819	

District wise damage



Alappuzha, Idukki and Malappuram have suffered highest number of complete house collapse

Households living in a different location post floods

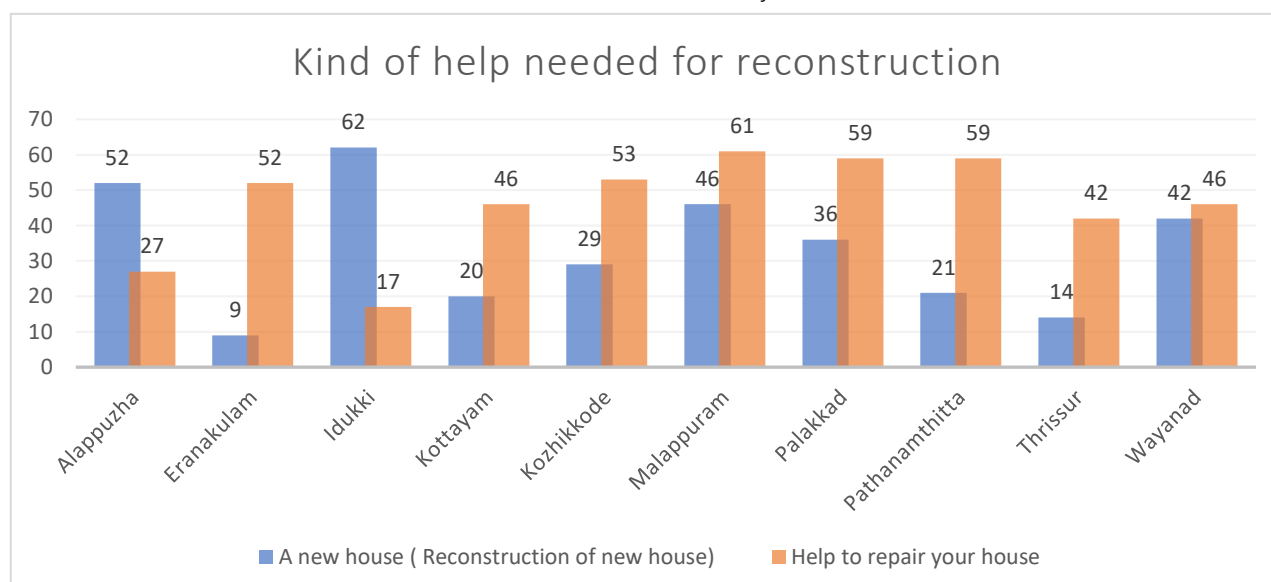
In many places, people who lost their homes to landslide and inundation were unable to return to their home and getting back to normalcy. Over 48% of the respondents in Idukki district reported that they have been living with their families and 16% of the respondents are living in temporary shelter and 39 % of the respondents are living at rented locations. The team also observed that the families lost their homes were staying at homes which are provided by their neighbours, this is evident that the community is sharing the burden of their neighbours

Support Required: For agencies planning to support in shelter recovery, it is important to understand the type of assistance required as per the respondents. While 40% of houses require reconstruction, or a construction of a new shelter due to complete collapse and loss of land, another 56.2% of houses included in survey need support for repair of their houses.

Kind of shelter assistance needed

	Number of respondents	Percent
Help to repair	460	56.2
New house/ Reconstruction	331	40.4
Information not available	28	3.4
Total	819	

The people affected by flood need shelter support in terms of material, cash and labour. 20% need labour support, while approx. 40% houses require material support such as timber, CGI sheets, bricks and bamboo. Cost of repair and reconstruction varies from INR 5000/- to 200,000/- Approx. 20% of the houses included in survey can be repaired with a support of 5000-20,000/- Indicated Rental support is 5000/- per month. District wise analysis shows that highest requirement of construction/reconstruction support is in Idukki followed by Alappuzha, while the requirement for house repair is higher in Malappuram, Palakkad and Pathanamthitta. Significant repair requirements also exist in Kozhikode, Ernakulum, Wayanad and Kottayam districts.



Potential Contribution from the affected people: According to 30% of the respondents, material from the old house existing before flood can be salvaged and

26% stated that they can contribute through labour. Partial cash contribution was also mentioned by some respondents.



5.4 Education

Current Status

The Kerala floods 2018 impacted school education in all ten districts where very heavy rainfall caused flooding and landslides. Students, teachers and school administrators were affected and school infrastructure faced damages. The losses are observed in terms of trauma to students caused by the hazard event, loss of learning materials of students and teachers, disruption of learning cycle, loss of teaching days and damage to school infrastructure.

Schools were used as relief camps and transition/ temporary shelters. The routine academic schedules were disturbed and the safety of school going children became a concern during the floods. The above concerns had to be addressed to establish child friendly, safe and protective learning spaces in the post flood situation.

Key Findings

The situational analysis from the household surveys, Focused Group Discussions and Key Informant Interviews which were undertaken in 10 districts indicate that the main constraints for resumption of school education are the following:

1. Lack of safe water and sanitation

As drinking water sources such as wells, ponds, fresh water streams and piped water supply systems faced damages and contamination, re-establishment of safe drinking water and potable water facilities in schools is required to ensure water quality for drinking and cooking purposes. This is essential to ensure the smooth functioning of mid day meals to students.

Repair and restoration of water supply in toilets and reconstruction of damaged toilets in schools will safeguard the hygiene and sanitation needs of both girls and boys. The toilets in schools need to have adequate safety and privacy for girls and boys. Potable water is a key element to ensure menstrual hygiene management for adolescent girls in schools. Waste management and excreta disposal in schools need to take into account school water sources to ensure non-contamination of water sources and sustainability of water needs.

2. Unsafe school buildings that need repair

Schools in the low lying areas in the path of localised landslides have faced structural damages due to heavy rain, flood waters and water seepage. The damages to school buildings include fully or partially damaged walls, damage to wiring and classroom infrastructure. It is unsafe to continue regular classes or academic responsibility for students, teachers and school administrators in such high risk and hazardous learning environments. It is necessary to adopt safe building codes to reconstruct damaged school buildings and sanitation facilities.

3. Mental Health issues- Need for Counselling

The crisis situation that emerged during the days of the very heavy rainfall and subsequent floods is observed to have had traumatic impact on the mental health and wellbeing of school going students. Psycho social first aid and psycho-social support programmes such as counselling and art therapy will facilitate the rapid recovery of student productivity. It also adversely affected the concentration and interest among school going children. Teachers can be trained to provide psycho

social care and support children from affected families to cope with the losses incurred and trauma faced during the disaster.

4. Unsafe access to schools (damaged roads and bridges)

The flood affected districts faced large scale damage to public infrastructure such as roads and bridges. The heavy rainfall induced flood waters have disrupted safe access to schools in the low lying areas. In the hill districts of the state, it was observed that localised landslides restricted the access to schools. This situation has disrupted the academic calendar and learning cycle of students, teachers and school administrators. Safe access is an important factor in re-establishing safe and protective learning spaces.

5. Physical dangers from rivers and landslides

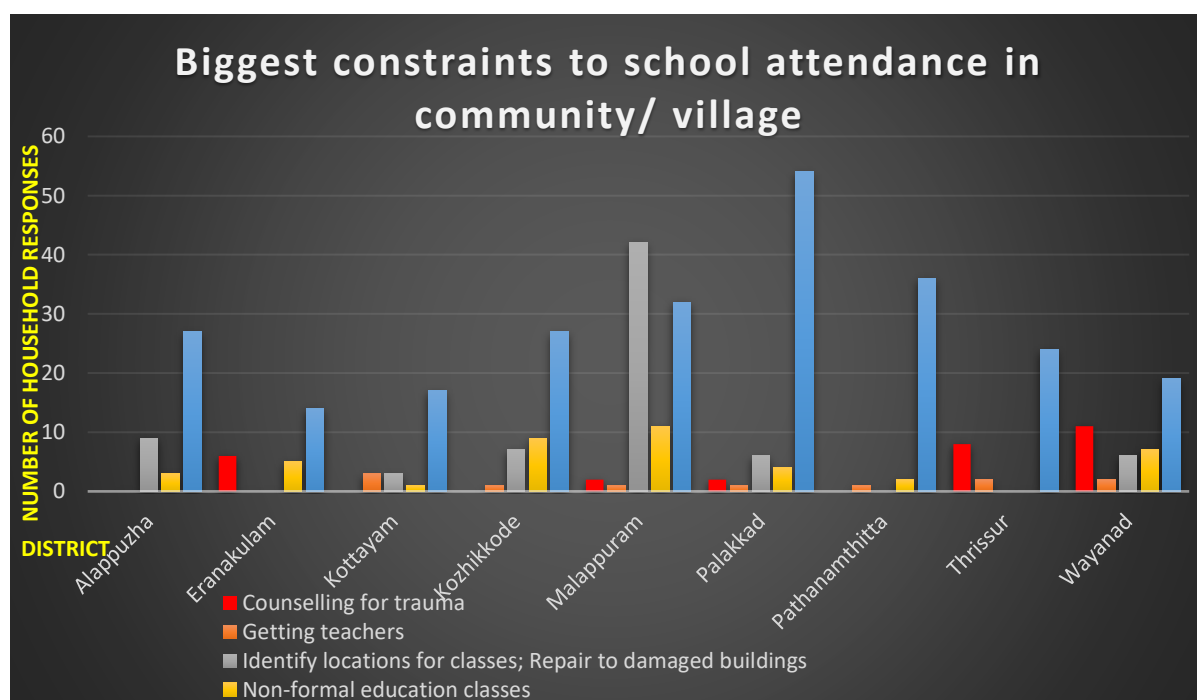
The swelling of rivers, tributaries, streams, backwaters and rain-induced landslides posed physical threats to school going children disrupting the safe access to school education. Based on the experience of the Kerala floods 2018, it is important to note the

high risk zones that increase the vulnerability index due to physical dangers faced by students in accessing education. A clear mapping of high risk hazard zones should be undertaken to ensure the safety of students, parents, teachers and school administrators that access education facilities.

6. Learning resources for students, teachers

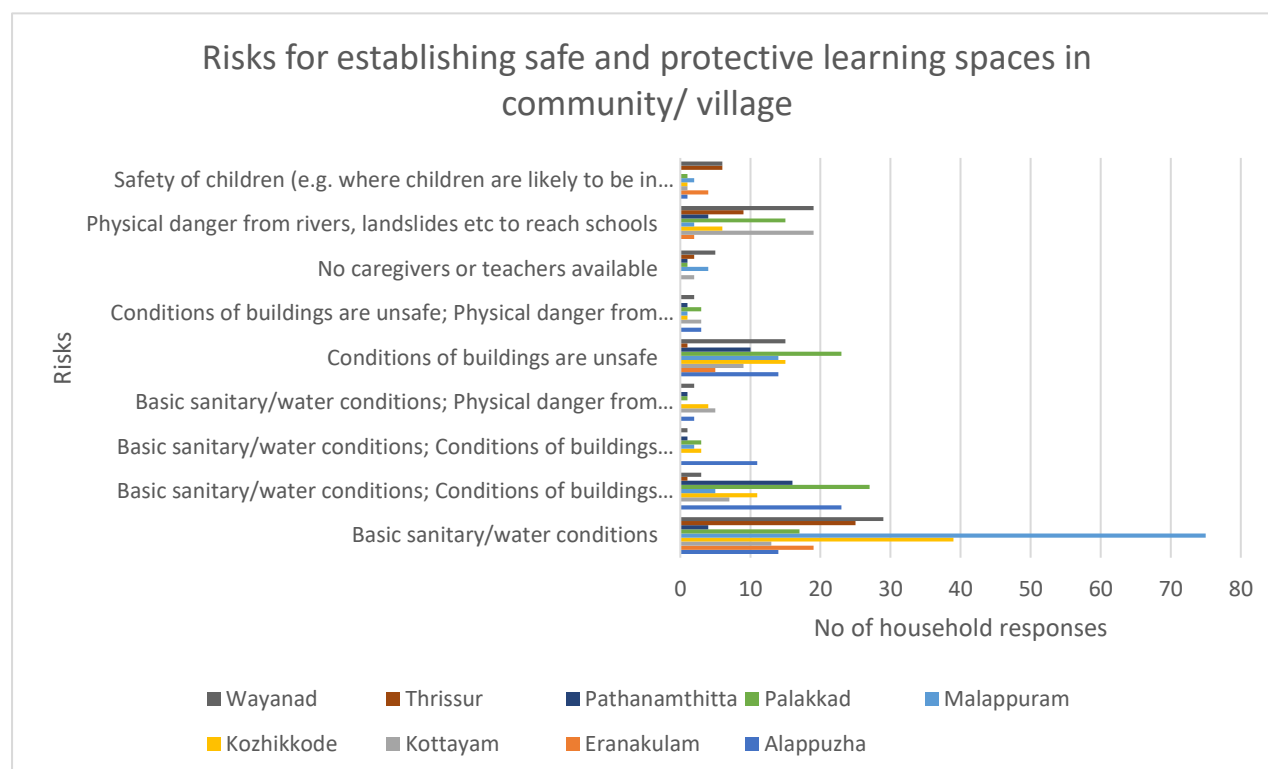
Students have faced losses in terms of learning materials such as text books, stationary, school bags, uniforms, academic records and certificates. Teachers have lost their learning and teaching resources. Schools have faced losses in terms of academic records, class room infrastructure, benches etc. It is essential to provide the minimum classroom infrastructure needs for the creation of a learning environment that facilitates the provision quality education among all stakeholders. Ensuring alternate support structures for student fees and teacher salaries requires careful consideration to ensure timely completion of the academic commitments of students, teachers and schools

Figure 1



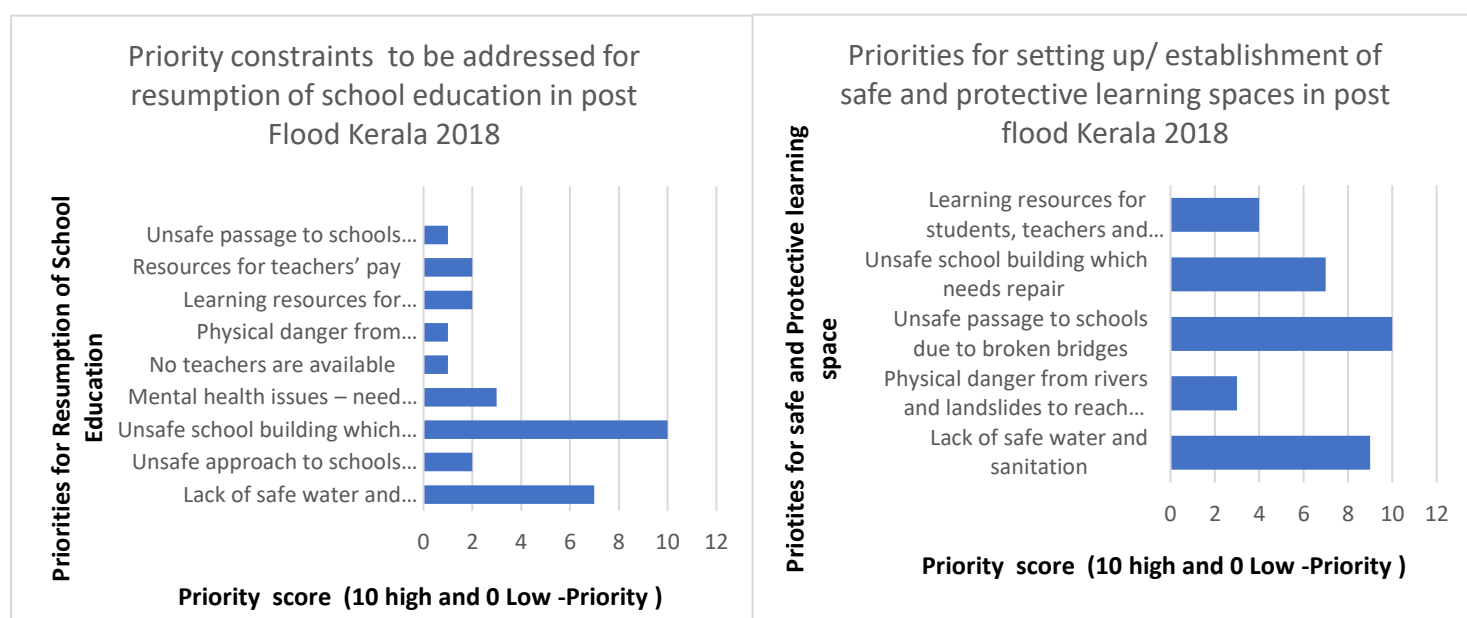
The above figure 1 provides a district wise representation of the constraints to school attendance within communities and villages. The priority constraints observed is the need for adequate water and sanitation facilities at school sites and repair of damaged buildings. Adequate focus and necessary action in terms of identification and deployment resources (financial, material and human) is needed to address this common constraint observed in all the flood affected districts. The heavy rainfall induced floods and landslides have damaged school buildings in 6 of the flood affected districts as shown above. It is necessary to identify alternative learning spaces where damage to school buildings and classrooms are observed. This will ensure the learning cycle of students is not disrupted. Timely action plans to address the building, repair and structural strengthening are needed to be documented and addressed to ensure the safety of students, parents, teachers and school administration and staff. Psycho social care and support is required within schools to address the trauma and strengthen the mental health of students impacted by the Kerala floods and Landslides.

Figure 2



The above figure 2 shows the nature of risks perceived and observed to setup and establishment of safe and protective learning spaces in a community/ village in the various flood and landslide affected districts of Kerala. The number of household responses in the x-axis represents the level of importance of the various risks to be addressed as priority through the recovery and reconstruction phase of the disaster. The major priority risks to be addressed across all districts are the provision of safe basic sanitary and water conditions in schools, repair and reconstruction of unsafe school buildings and infrastructure. As safe access to schools is an important criterion to be addressed to ensure student safety. It is necessary to identify places where hazard risks due to unsafe roads, broken bridges, landslide prone areas and undertake necessary establish infrastructure and safety measures to reduce physical vulnerability of school going children.

Figure 3



The priority score of resumption of school education in Kerala requires addressing the needs to ensure basic water and sanitation facilities, repair and reconstruction of damaged school infrastructure is the primary focus areas and provision of safe access to schools necessary. Simultaneously there is a need to ensure adequate and timely provision of psychosocial care, learning resources for students, teachers and schools. Timely provision of resources for teachers pay is important factor.

Figure 4

The priority score for setting up safe and protective learning spaces shows that priority during recovery and reconstruction phases requires dedicated resources to address safe access to schools, provision of adequate water and sanitation facilities within the schools, repair of school buildings and basic infrastructure. Provision of learning resources for students, teachers and schools is essential.

Recommendations for the resumption of school education and establishment of safe and protective learning spaces

Major issues	Recommendation	Activities
Physical damage to schools including lack of safe sanitation	School development plan for each school comprising of but not limited to School Safety plans, School Disaster Management Plans including WASH and Child Protection Programmes.	<ol style="list-style-type: none"> 1. Cleaning , disinfecting , white washing and minor repairs of classrooms and school building to ensure a safe child friendly space. 2. Cleaning, disinfecting, white washing and minor repairs of kitchen space for quick restoration of mid-day meals. 3. Cleaning, disinfecting and minor repairs of school toilets, for girls, boys and children with special needs (Persons with disability). 4. Restoring safe drinking water facilities in the schools. 5. Cleaning, disinfecting and painting for outdoor and indoor play areas including playgrounds and other recreational infrastructure. 6. Wall paintings for making the school environment info graphic rich and child friendly. 7. Installment of essential learning equipment and materials inside the classroom such as blackboards, projectors, audio visual systems, benches etc. 8. Provision of textbooks and teaching-learning materials to ensure meaningful resumption of teaching learning processes. Provision of sports equipment (indoor and outdoor) to ensure children's engagement with games.

Teacher availability and teacher presence	Capacity building	<ol style="list-style-type: none"> 1. Training needs assessment of teachers and education officials. 2. Training of teachers and school administrative staff of the affected schools should be undertaken to support them in accelerated and remedial classroom learning for the students.
Mental trauma to students and communities	Counselling including referral services	<ol style="list-style-type: none"> 1. Training and mentoring for trauma and Psychosocial care/ support to teachers and education managers. 2. Setting up of active referral systems and counseling. 3. Provision of psychosocial first aid and care activities for school-age children. 4. Recreational activities and sports for children indoors and outdoors. 5. Art, music, theater, storytelling, story writing, story in art form, dance, games, sports, outdoor excursion to affected areas, life skill training and craft therapy.
Long term rehabilitation and prevention	Child Centred Disaster Risk Reduction	<ol style="list-style-type: none"> 1. Resumption/ creation of the school disaster management committee headed by principal for supervision disaster risk reduction activities. 2. School disaster management and preparedness plan including mock drills. 3. Child led evaluations at the time of project completion. 4. Child protection support facilitated through participation of parents, teachers. 5. School Management Committee (SMC) needs to be trained on DRR related practices. SMC monthly meeting should have an agenda of School Safety/ DRR. 6. Review and revision of existing curriculum and textbooks to ensure that elements of DRR/ School Safety and Psychosocial support/ care are integrated.

Policy recommendations

The school education sector requires clear strategy to address the immediate recovery, reconstruction and disaster risk reduction needs in the context of Build Back Better focusing on school education as a key aspect of rebuilding a resilient Kerala throughout the disaster cycle.

A

MAINSTREAMING

the national school safety policy and programme.

B

Implementation & practice

of the comprehensive school safety policy.

C

Establishment

of Child Centred Disaster risk Reduction strategy in the context of school education.

5.5 Livelihood

There is a critical need for sustained action on livelihood restoration and mainstreaming resilient livelihoods to mitigate negative health and livelihood outcomes. Targeted cash infusion will go a long way to ensure a resurgent hope in the affected communities. Inclusive targeting of vulnerable groups and marginalized groups needs to be prioritized with a need to incorporate strengthened community cohesiveness; and referral mechanisms for those affected.

Livelihoods in the state are very well connected with practicing members often connected in formal groups of cooperatives or committees. This must be taken advantage of while targeting assistance since these groups are almost always connected to the government in some form or manner. The Government of Kerala is the largest responder in all areas and liaising with respective district administrations and departments linked to livelihoods should be the first step before delivering any assistance. Kudumbashree, the poverty eradication programme of the government is another key initiative that agencies can link with to identify and support the livelihoods of the most vulnerable sections of Kerala's otherwise broadly affluent society.

The assessment found that traditionally marginalized communities such as scheduled caste households, other lower caste communities, plantation and agriculture workers and scheduled tribes who display the lowest human development indices of the state are still in need of continual support after the initial surge of relief. Summary of key findings on the food security and livelihood situation in the 3 districts along with the recommended actions for fostering effective and efficient livelihood early and long-term recovery programming are given below

Key Findings

- Vegetables and banana harvest for Onam was lost. Standing plants were destroyed due to the heavy rain and flooding.
- Spices such as cardamom, pepper, cocoa and coffee were also badly affected as the intense rain damaged the upcoming harvest. In places, cropped land was lost due to landslides.
- Cattle and cattle sheds were lost in landslides. Many cattle owners who did not lose livestock are facing the challenge of feeding them as fresh fodder is hard to come by. As a result milk production is reduced and maintaining cattle is difficult.
- Agricultural labor was badly affected since work on plantation crops. The damage to the crops has also meant the upcoming harvest season will not offer wage labour opportunities.
- Tourism and hospitality is affected.
- Communities have regular access to PDS and have received food aid supplied by GoK and other sources.

Emerging Needs

- Vegetable farmers need support in the next month itself to restart cultivation. If it's delayed, then they cannot cultivate till next year.
- Dairy farmers who have not lost livestock need support to purchase fodder so that milk productivity is maintained, and distress sale is

prevented. Those who lost livestock will need support to supplement government subsidy of 50% of animal price when purchasing new cattle.

- Households with small plantations of spices will need supplementary

income in the coming months to cope with loss of harvest.

- Households dependent on agricultural wage labour will need alternate sources of income in the next 4 months.



5.6 Nutrition

Major Findings

(I) IYCF practices and prevalence of acute malnutrition

The findings are based on the 80 household interviews and FGDs conducted with various stakeholders in Pathnamthitta district of Kerala. While the

MUAC data is pooled from all 10 districts through the help of Sphere India and their volunteers.

Out of 80 households, 44 children were found within the age group of 0-23 months with a median age 11.5 months.

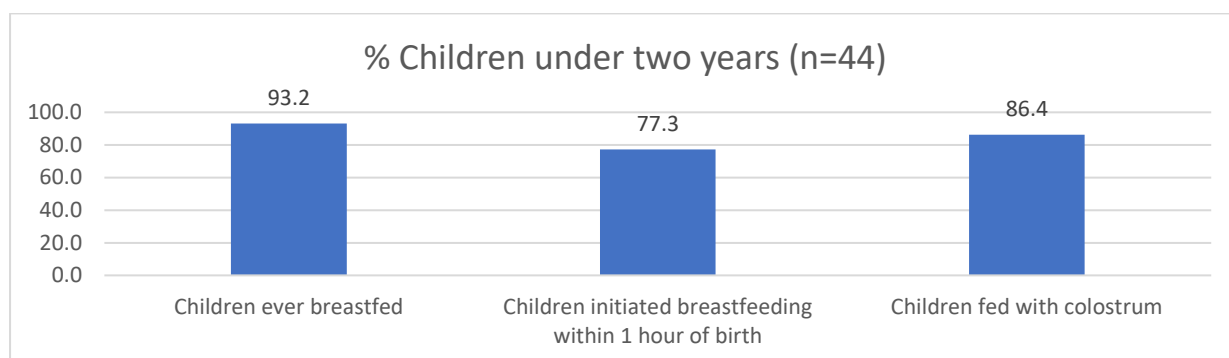


Figure 1: Children's breastfeeding status

As per the above figure, children in the assessment area have accessed to improved breastfeeding practices in the sampled household with 93% of children who are breastfed ever and amongst them 77% have initiated breastfeeding within one hour of birth and 86% of children have received colostrum.

From the FGDs, it was understood that infant formulas and other milk products like Lactogen have been distributed in the camps by many Non-Government Organisations (NGOs) and separate breastfeeding corners were set up in the camps for mothers to

The comparable figure for Kerala state as per NFHS-4 data is 21.4%. The prevalence of a very low access to acceptable diet indicates

continue exclusive breastfeeding. With regular and adequate supply of food aid from the government and other sources in the relief areas, mothers did not face issues in feeding their children while staying in the camps or after floods.

Amongst the sampled children, the median age of introducing complementary feeding is 6 months. However, so far as quality of complementary feeding is concerned, only 11% children between 6-23 months have access to a minimum acceptable diet as shown in Figure-2. This was measured through a 24-hour recall of diet.

the situation pertaining to food insecurity in the affected households

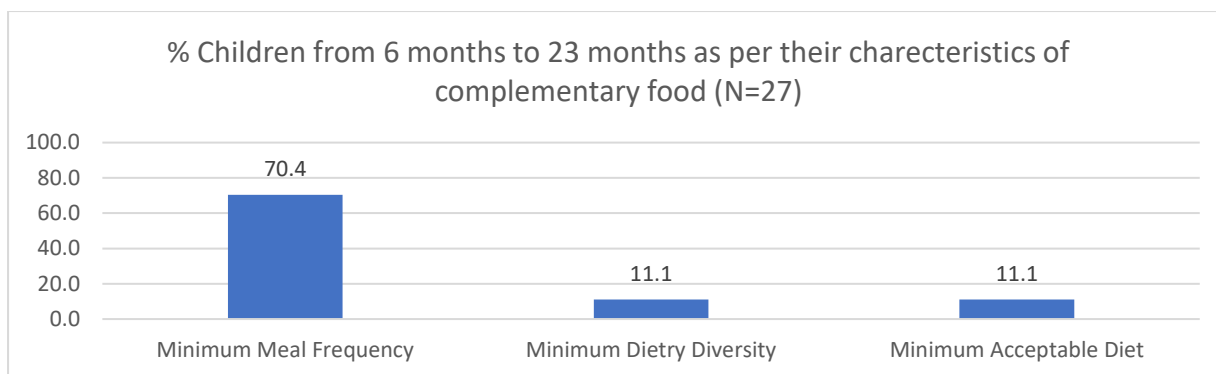


Figure 2: Patterns of complementary feeding practices

As shown in figure 3, prevalence of GAM (MUAC < 12.5 CM) amongst the sampled children is 7.5% and the prevalence of acute malnutrition amongst pregnant and lactating mothers whose MUAC is less than 23 CM is 11.3%. As per the Sphere

standards, when child malnutrition rate is less than 10% with no aggravating factors, there is no need of population level interventions. We should continue individual attention of children.

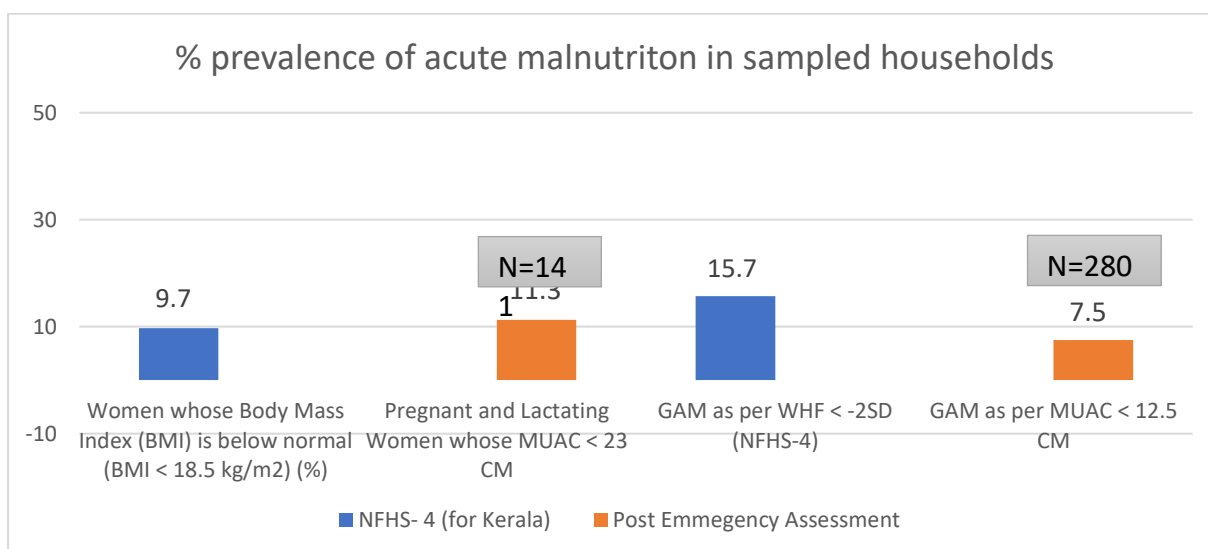


Figure 3: Prevalence of acute malnutrition in sampled households across 10 worst affected districts of Kerala

Generally, MUAC detects only around one fourth of total GAM in comparison to the gold standard of WHF. However, in this case the prevalence of GAM (MUAC) is slightly higher from the state average (WHF score of NFHS 4). This is because the state gives a general average, whereas the sampled children screened post emergency are from the worst affected districts and households.

(ii) Access to food and food security

Out of 80 household's assessment, 57.5% of respondents have received PDS/ICDS or MDM food in the last seven days.

During the household assessment, respondents were asked to recall and tell the duration of food stock that used to last during the peace time before the crisis. Similarly, they were asked to estimate their available food stocks during the day of visit and tell how long that will last. It was observed, as shown in figure 5, that both cereals and lentils that used to last for a month have come down and now it will last for a week.

% HH received any food aid from PDS/ ICDS/ MDM in last 7 days

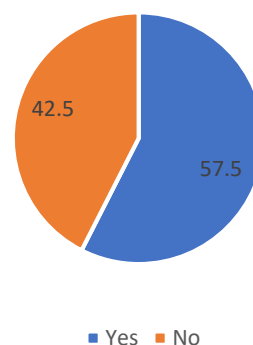


Figure 4: Access to food from government schemes

This shows the impact of food availability, its access to affected households.

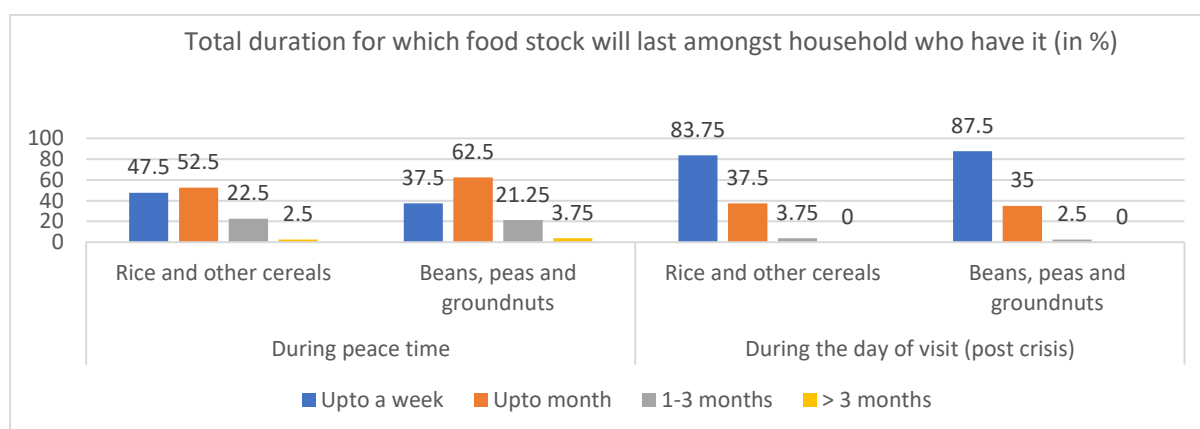


Figure 6: Food stock as per their stock duration for households before and during the crisis

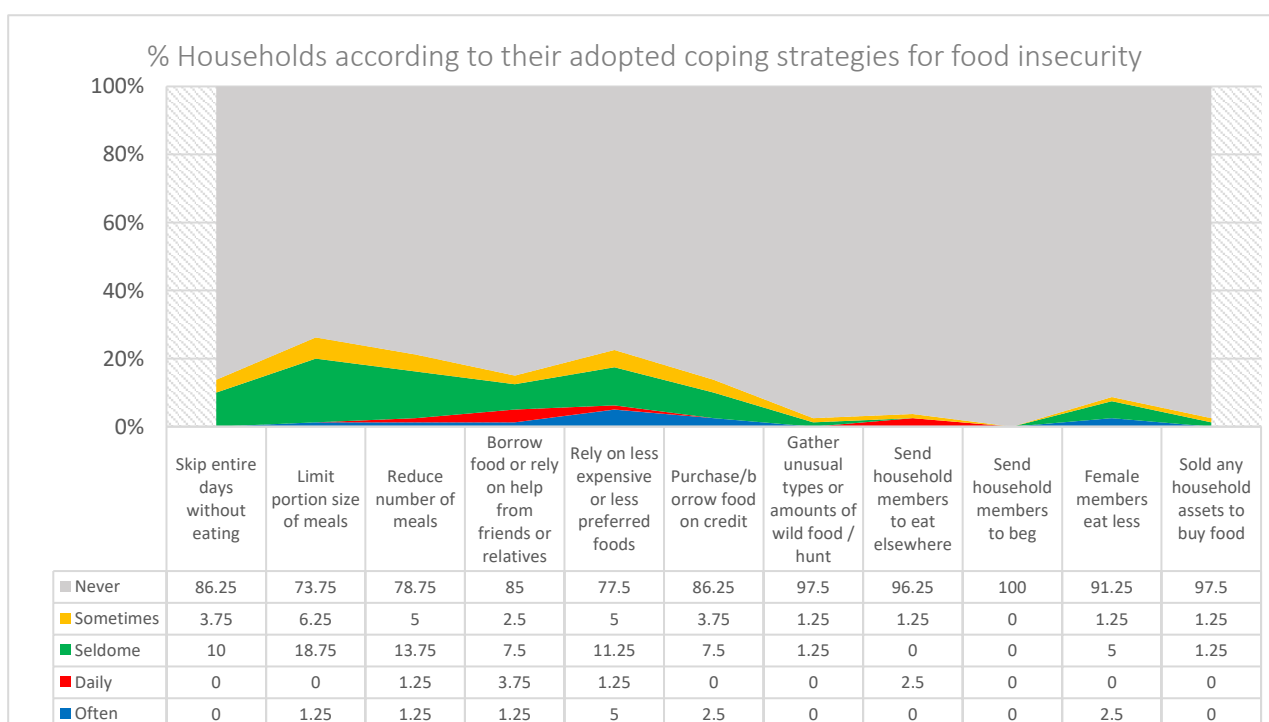


Figure 5: Households coping strategy for food insecurity

As seen in the figure 6 above, majority of the affected households did not resort to any coping strategy for food insecurity post floods. Out of the mechanisms adopted the ones which were exercised daily are '*borrow food or reply on others*' (3.75%), '*send household members to eat elsewhere*' (2.5%), '*reducing the meal quantity*' (1.25%), '*opting a less expensive food*' (1.25%)

Similarly, the coping mechanisms which were exercised often are '*rely on less expensive food*' (5%), '*female members eat less*' (2.5%), '*borrow food*' (1.25%), followed by '*limiting the number and portion of size*' (1.25%) and '*borrow food or reply on others*' (1.25%)

(iii) Functioning of institutions

Though majority of the AWCs and Sub-Health Centres have started functioning again post floods, there has been a major loss of the supplies and equipment in the centres. Documents and registers have been

destroyed by the flood water. Equipment like weighing machine, Salter scale, BP instrument, water heating apparatus among others are in non-functioning condition now.

Government has started re-supplying stocks of Take Home Rations (THR) in the AWCs for distribution to the children and lactating mothers. Medical staff from the Medical Colleges and hospitals have been deployed in all the Health Sub-Centres for a month to provide essential health services to the community. Doctors and other health staff were alternatively visiting the camps during the flood. Some services like organization of Village Health and Nutrition Day (VHND), immunization day are yet to start in some centers. Due to severe damage to the infrastructure, some AWCs are currently functioning in homes of the community members

Emerging needs

- Cleaning of the drinking water source/s
- Distribution of chlorine tablets to all households
- Replacement of the damaged equipment and supplies to the Aanganwadi Centres and Health Sub-Centres
- Infrastructure damage caused by the floods requires categorisation in terms of extent of damage followed by subsequent corrective measures including re-shifting the centre, painting of the walls, floor cleaning etc.

5.7 WASH

Major Findings

- Most of the houses had access to total sanitation before the disaster; now the houses along with toilets have been washed away by the landslides / floods for the affected households.
- Some of the families are resorting to temporary sanitation facilities by digging a pit near the households. 39% women expressed privacy and dignity issues regarding the same.
- 58% of the households have already begun restoration of the sanitation facilities.
- Most of the families reported challenges faced by them to restore / repair their sanitation facilities – Unaffordability of materials and tools reported by 78% households.
- Regarding the handwashing practices, 92% households claimed that they used soap.
- Menstrual hygiene practice: Majority of the women and adolescent girls use sanitary napkins. Unsafe disposal of sanitary napkins.

IMMEDIATE

- Restoration / Rehabilitation of existing water sources
- Testing of water sources for quality and safety
- Construction of new water filtration system with DRR component
- Rehabilitation of partially damaged toilets
- Public health promotion focusing on MHM, safe water chain and hand washing at critical times

SHORT TERM

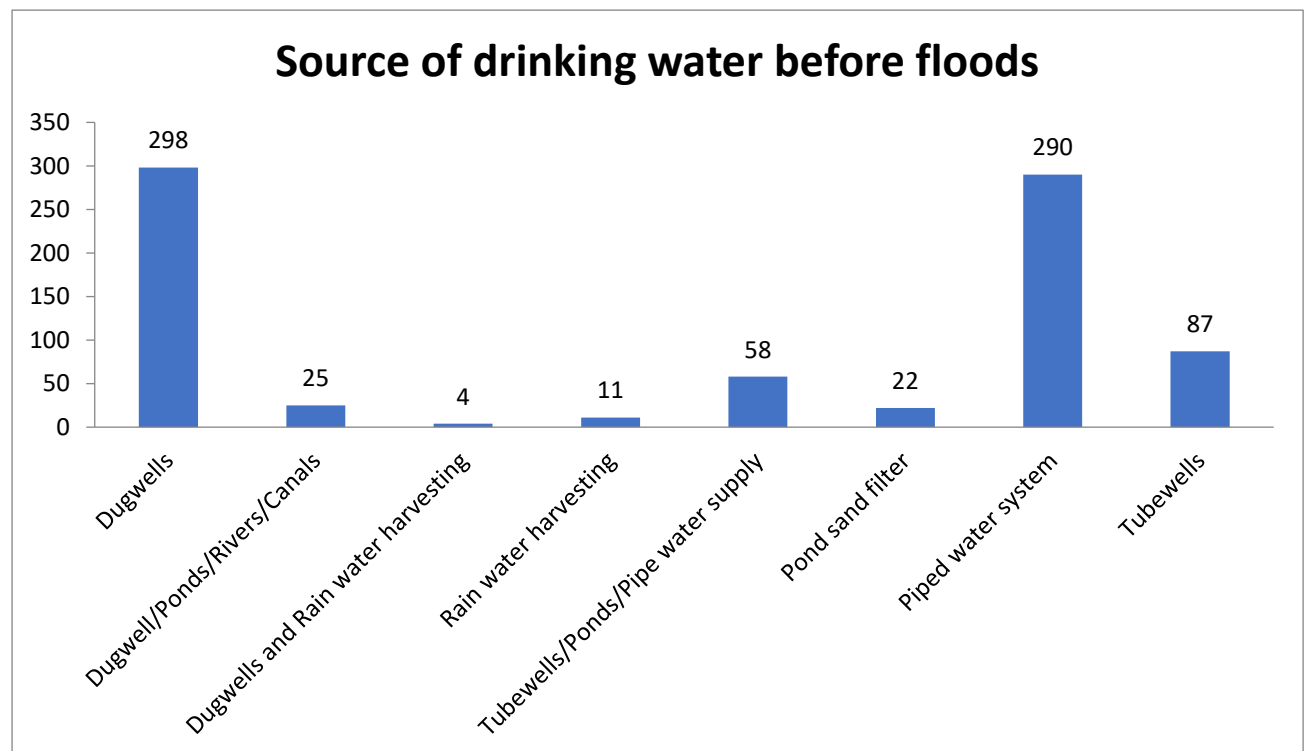
- Formation of Village level Water & Sanitation Committees
- Training of local mechanics
- Public health promotion on menstrual hygiene management – safe disposal
- Installation of electric incinerators in schools
- Advocacy with the Government to cover the partially damaged/ dysfunctional toilets under SBM

LONG TERM

Rain water harvesting

A.WATER

Water Source



Distribution of households according to water source

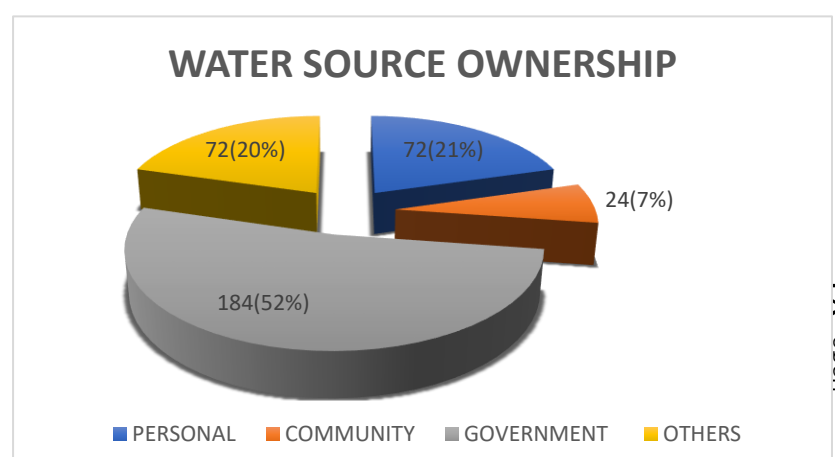
The source of water is mainly supply water i.e. OHT (overhead tanks constructed by the government with water drawn from bore wells) with 57 percent of the households collecting water from it. The water from the overhead tanks is available only for only two hours in the morning and the households store water in storage containers. The other main source of water supply are tube wells

supporting 29% households. Only 2% of households are dependent on dug well. The above figure (Fig 5) also shows that some households use more than two sources of water supply with 11% using both tube well and supply water and 1% using both dug well and supply water.

Fig 6. Distribution of households according to water source ownership

Water Source Ownership

Out of 280 water sources quoted in the survey, 52% are owned by the Government/Panchayat, 21% by the households and 7% by the community. There are about 20% of the water sources which are not under community ownership.

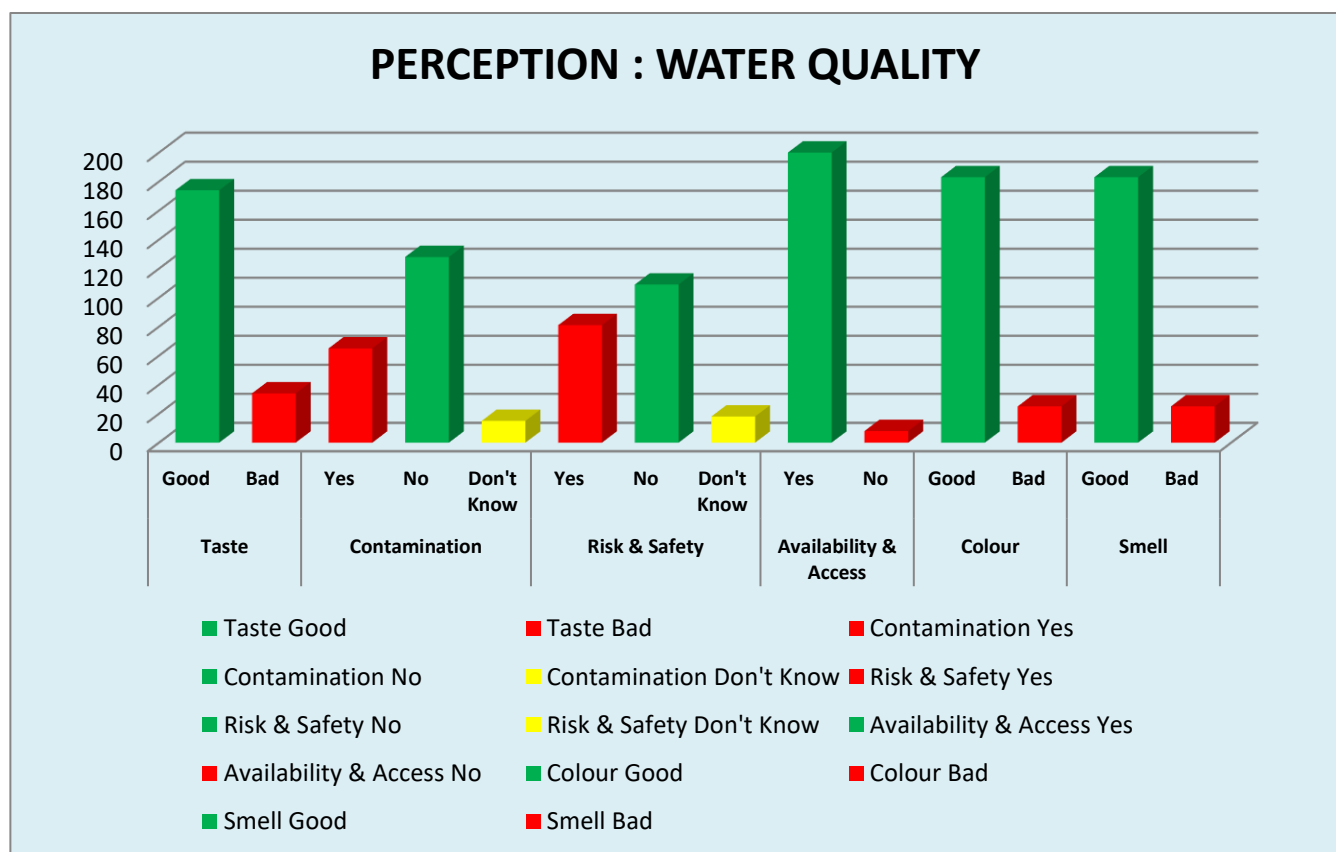


Water Accessibility

It is generally the women who collect water from the source. Majority (84%) of the households collect water from a distance of within 50 meters. It was also observed that 2% of the respondents had to travel for more than 500 meters to fetch water (Fig &7). In order to gain an idea of the accessibility to water in the target villages, the respondents were asked to estimate the amount of time they need, in order to collect water from the water source. The waiting time may indicate, whether the water sources are sufficient

enough to supply the community with daily drinking water. Based on the answers, 17 respondents answered the question, whether they had to stand in line to collect water with "Yes", while majority (191) denied any waiting time. It was also observed that, out of 17 households, 41% (7HH) expressed that they have to wait for almost 30 minutes to collect water from the water source whereas about 12% expressed that they have to wait for almost an hour to collect water. Hence, it was observed that majority of the households did not have issues with availability and accessibility of water.

Regarding perception of quality of drinking water, about 84% of the respondents expressed that water taste is good whereas 16% expressed water taste as bad. More than half (62%) of respondents think that water is not contaminated. Majority (90%) of the



respondents reported that water is available and accessible. It was also reported that the colour and smell of water is good by majority (88%) of the respondents.

Daily Water Consumption per head

It was observed that the average consumption of water per household per day is 120 liters as shared by the respondents according to their individual estimation. The chart below shows the average quantity of water used for different purposes i.e. cooking, drinking, washing, bathing. Hence it was observed that the daily water consumption per head meets the SPHERE standards (15 liters).

Mode of Water storage

During the baseline, (Fig 10) the majority of households, i.e. 64% claimed, that they used a vessel – plastic/ metal (kalsi) with narrow neck for storage of their drinking water, all of which – based on the investigation of the surveyors – were covered properly (64%). 32% of the households used more than two different types of containers to store water like vessels, buckets, Oxfam buckets, pots etc. Within the sample frame 23% of the households were already provided with Oxfam buckets (at the time of interview) during the conduction of the survey and were

Among the (78%) households who did claim to treat their drinking water before consumption, majority (81%) shared that they boil it before consumption. 5% of the respondents are using chlorine tablets given

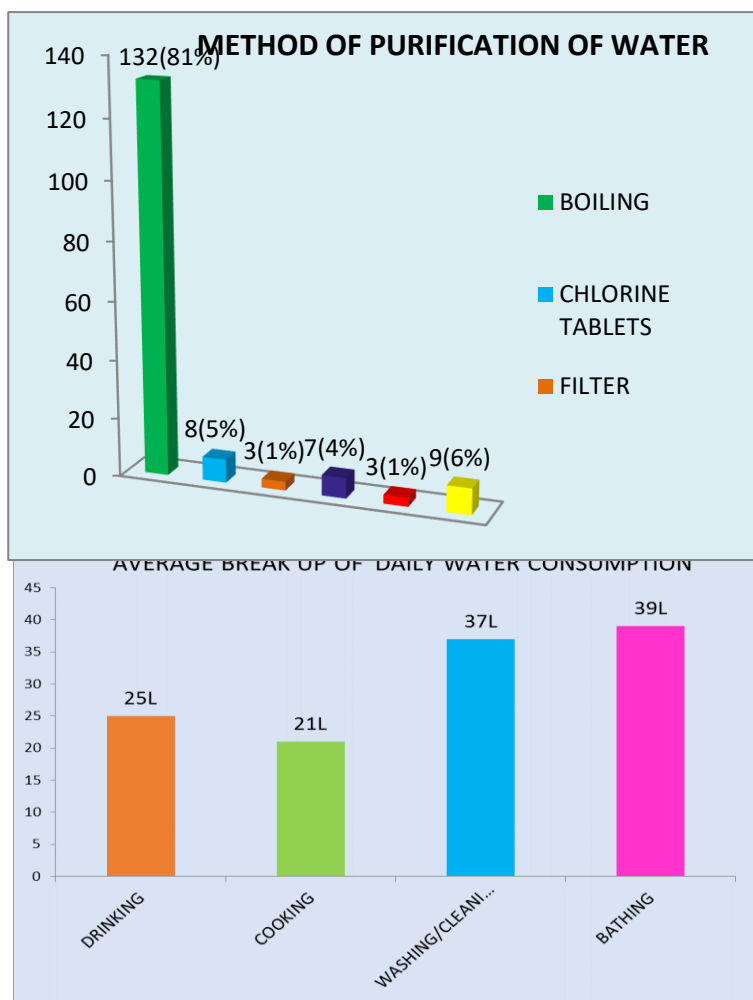
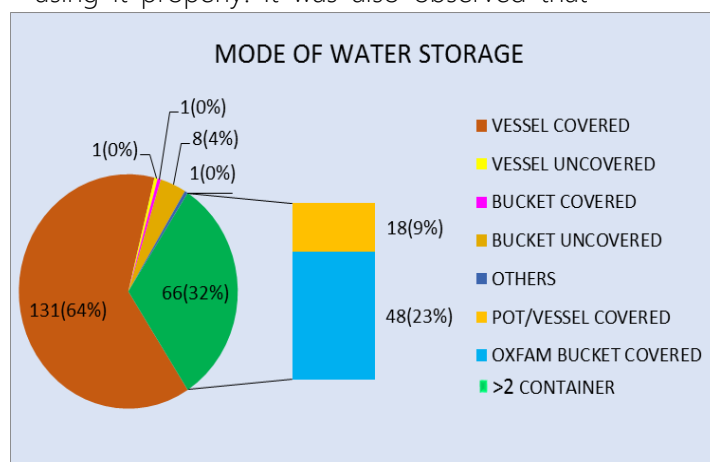


Fig 9. Average breakup of daily water consumption of households
using it properly. It was also observed that



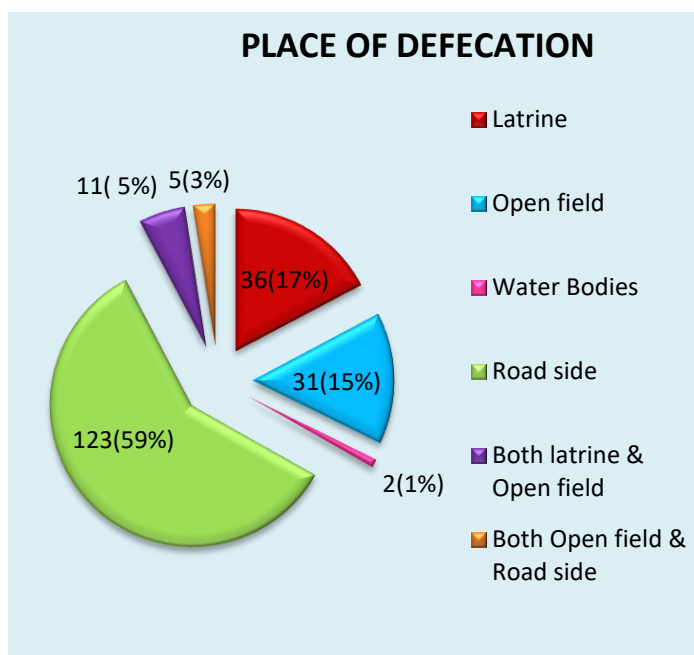
almost all the households cover the water storage containers.

to them in the hygiene kit, to purify water. (Distribution of hygiene kits had started only in a few villages). The data also revealed that 4% of the respondents used canisters of packaged drinking water.

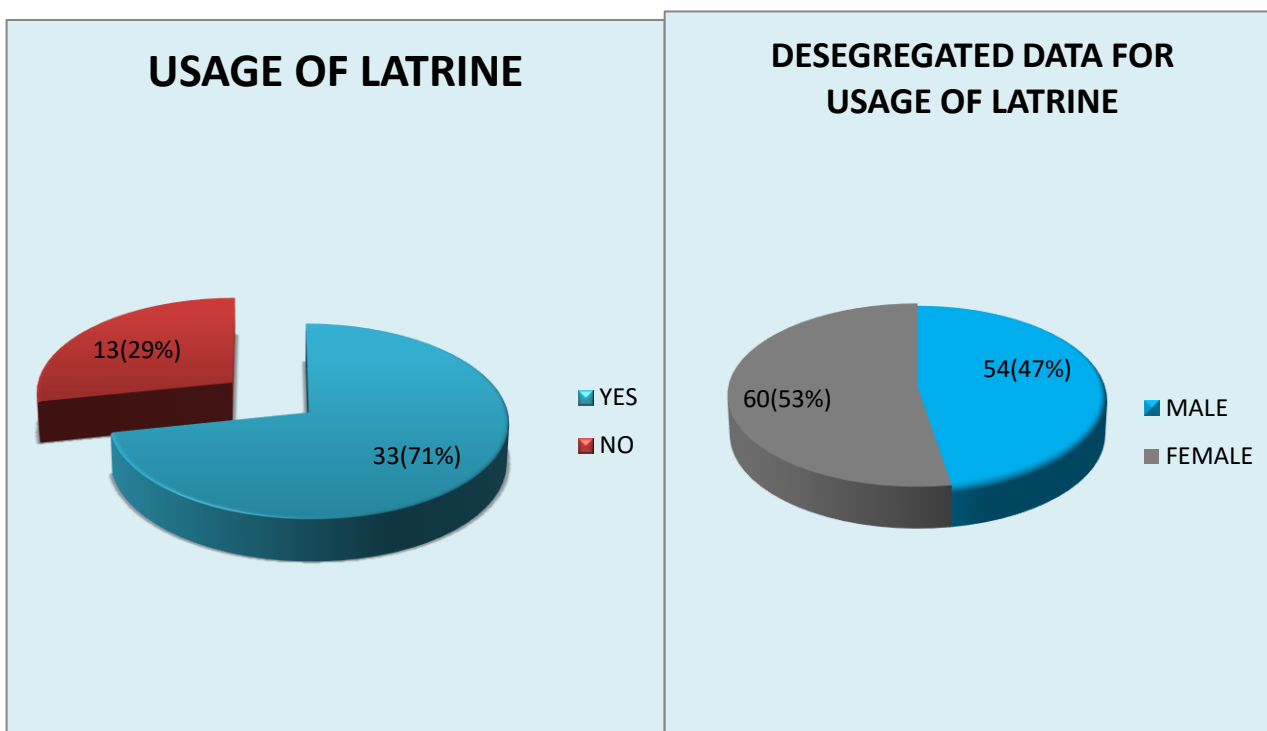
B. SANITATION

Place of defecation

During the baseline, the participants in the KAP-Survey were questioned about their regular place for defecation prior to Oxfam's intervention in the target villages, in order to verify on the access to sanitation facilities and whether the community use them. The baseline shows that majority (83%) of the respondents, didn't have access to a latrine but went for open defecation, i.e. 59%, to the roadside, 15% in open field, and 8% in both open field and roadside. According to the answers, only 17% of the households covered in the survey mentioned, to use a latrine for defecation. baseline shows (Fig 16), that out of 46 households that own a latrine, only 33 households use latrine for defecation. The remaining 13 households did not use latrines due to reasons like, no wall, no roof, pit full of excreta etc. The data further indicates that



both female and male members of the households did use the latrines almost equally. Among the users 53% are females and 47% are males



HAND WASH

Hand wash: Critical times

Regarding the hand-wash practices, the respondents in the KAP-Baseline were asked in a multiple option question about the key moments when they wash hands. Accordingly, all the respondents wash their hands before food and after defecation, 87 % before cooking, and 39% before feeding their children. The data is quite contradictory to the findings of the focus group discussions where it was observed that the hand washing practices are relatively low among the community. This may be, as most of them went for open defecation and it was not possible for them to wash hands with soap and water at the

defecation place. The other reason may be either because they were too shy to talk about their hygiene practices or the surveyors asked very leading questions.

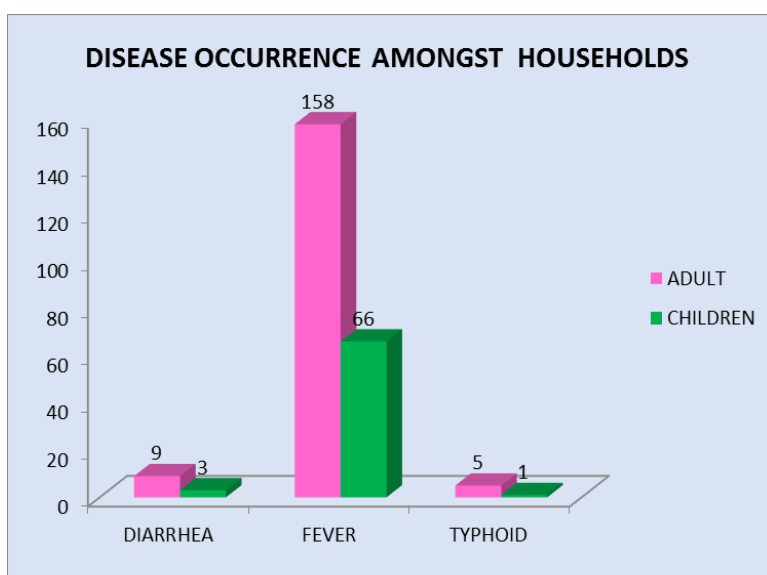


C. HEALTH

Disease occurrence

amongst Family Members

During the baseline, the sample households were asked, whether any family member suffered from any waterborne diseases in order to assess whether the general public health within the villages is at risk. Within 208 households, 12 cases of malaria (9 adults, 3 children), 222 cases of fever (158 adults, 66 children) and 6 cases of typhoid (5 adults and 1 child) were reported. However, during



individual focus group discussions with the women in the camps skin infections were reported.

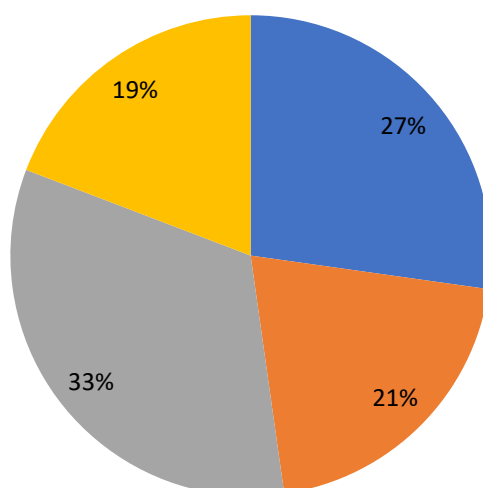
5.8 Households with Persons with Disabilities

Emerging Needs:

- The survey indicates that households having disabled members are likely to be disproportionately affected as they have fewer resources to cope. And as such indicates the need for better targeting that addresses the most vulnerable.
- The survey further shows that: 28% of the houses belonging to families with disabled members are fully damaged in the floods (category 1) and 32% have Category 2 damages.
- 55% of the respondents have identified that their family members with disabilities are not able to reach and use water and sanitation facilities with ease and safety.
- Support to a) rebuild the houses, b) design and allocate resources for safe and accessible water and sanitation facilities are some of the emerging needs for people with disabilities and their families.
- It is acknowledged people with disabilities face barriers in access to other sectors – such as education, communication, protection, and livelihood. However, due to the scope of the survey, it was not possible to collect information on the needs of people with disabilities in all sectors of humanitarian action. Further, specific needs of people with disabilities such as loss of assistive devices, medication could not be assessed

Types of Disabilities

■ seeing ■ Hearing ■ Physical ■ Mental Health issue



Key Recommendations

- Humanitarian Actors must take into consideration disability in targeting , as a factor that influences access to humanitarian response . (Water , Sanitation, Shelter, Food , Protection , etc)
- While rebuilding houses for families with disabled members, consider the barriers she/he may face in entering and using the house and the rooms. Consult with the person with disability and family members and work to eliminate barriers.
- To ensure ease of reach and safety in accessing water and sanitation – identify and work to eliminate barriers to water and sanitation facilities. Consult with the person with disability and family members and design appropriate structures/services.
- People with disabilities may also have specific needs, such as replacement of aids or appliances, and access to rehabilitation services , consider identifying service providers such as District officials representing the Directorate of Social Justice in Kerala, Disabled Peoples Organisations and NGOs working in the area on disability and linking them to the relevant service.

5.9 PROTECTION

A. INTRODUCTION

This report from the protection of marginalised communities' perspective, presents inter-caste/class-wise analysis of the assessment parameters, since the community samples were not comparable otherwise with each other. It has analysed the data from Sphere India led assessment in 10 districts of Kerala, namely Alappuzha, Ernakulam, Idduki, Kottayam, Kozhikode, Malapuram, Palakkad, Pathanamthita, Thrissur and Wayanad. The total number of respondents was 829, of which this report presents multi-sectoral findings for all major social groups, namely the Other Backward Classes (OBC), Scheduled Caste (SC), Scheduled Tribes (ST) and Others (comprising the General category).

NOTE: The category of Most Backward Classes (MBC) as used in JDNA, is found to be officially non-existing in the State Government's website. The Kerala Government website (www.bcdd.kerala.gov.in) identifies only Other Backward Communities (OBC), Other Eligible Communities (OEC), Socially and Educationally Backward Communities (SEBC), Scheduled Castes (SC) and Scheduled Tribes (STs). Hence, MBC category (13 respondents) have been merged with OBCs, and General category (7 respondents) are merged in 'Others'.

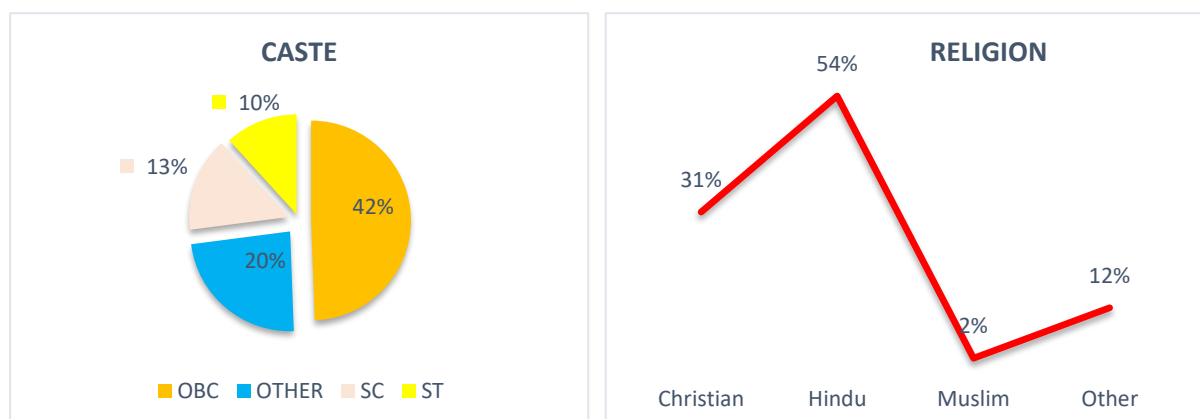
KEY FINDINGS

1. 25% of the households across 10 districts are women headed. Of these, 36% of OBC, 30% of SC, 22% of ST and 18% Other households are headed by women.
2. The highest percentage of SC and STs fall in low income group of Rs. 5000 and below, but their number starts diminishing in higher income groups
3. Of 829 respondents, only 14% are engaged in agriculture, of which only 6% SCs own land.
4. Majority of SCs (45%) live in semi pucca houses and a high percentage of 19% SCs live in temporary huts, followed by 16% of STs living in traditional mud houses.
5. 70% of SCs and 81% of STs houses suffered damages of Category 1 and Category 2
6. SCs and STs together make up for over 50% losses of legal papers
7. 14% of SCs and 18% of STs never had legal papers for property even prior to disaster
8. A high number of STs are dependent on ponds/ canals/ river to meet water requirements, while lesser number of STs and

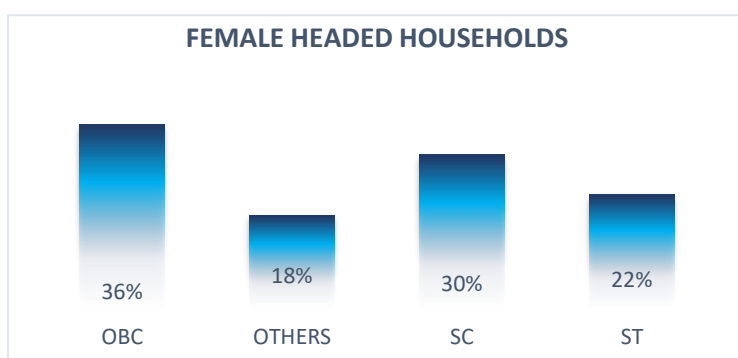
- Others have piped water connection
9. Highest number of STs (55%) followed by OBCs (41%) and SCs (36%) reported lack of privacy in using latrines post floods.
 10. Only 58% of ST women and adolescent girls used sanitary napkins, and 35% 35%) of them used cloth post disaster post disaster.
 11. A higher proportion of SCs used non-sanitary toilets, and majority of ST respondents denied using any facility, indicating to the practice of open defecation.
 12. 77% of SCs and 69% of STs females practiced unsafe methods of disposal of sanitary napkins.
 13. 48% of STs denied the functioning of AWW/ANMs followed by 39% of OBCs in their villages
 14. Among the total number of patients with diabetes/hypertension, highest number were reported by SCs followed by OBCs.
 15. A high number of OBCs and STs reported unreasonably irritable behaviour by self or family member/s post floods
 16. Highest number of STs reported the family members were not living together post disaster
 17. Majority of SCs reported some changes in the children post disaster.
 18. The highest number of SCs reported lack of playing area of children, followed by STs and OBCs
 19. 112 FIRs for missing children were registered with the Police by 30% of SCs and 18% of OBCs.
 20. Almost all communities lacked awareness of whom to approach to find missing children. This ignorance was particularly high among STs (94%) and SCs (90%).

B. MULTI-SECTORAL ANALYSIS

I. Profile of Respondents (Caste, Religion, Gender)



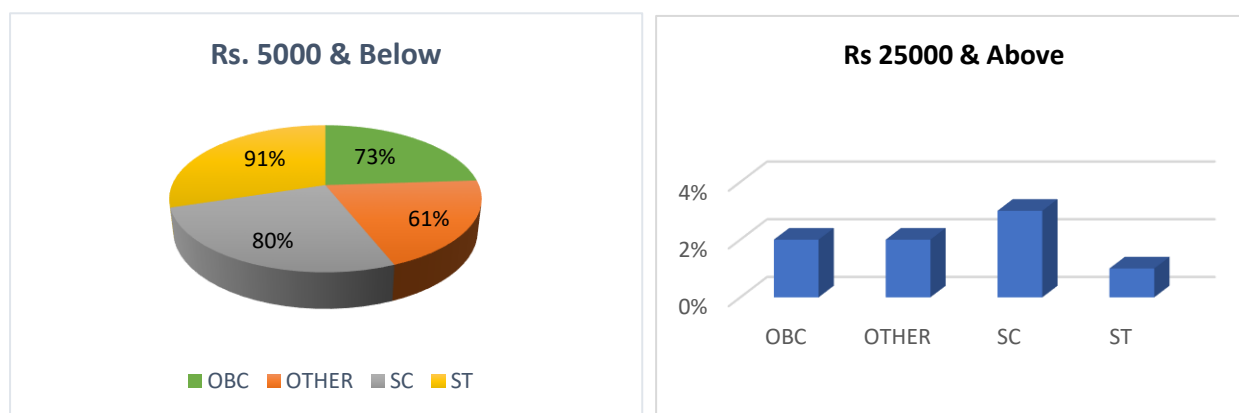
Of the total 829 respondents, 42% are OBCs, 13% are SCs, 10% are STs and 20% are Other households. 30% of the total respondents are Christians, 54% are Hindus and 12% (100) are Muslims. Majority of the Christian respondents are from OBC communities (Ref. master copy).



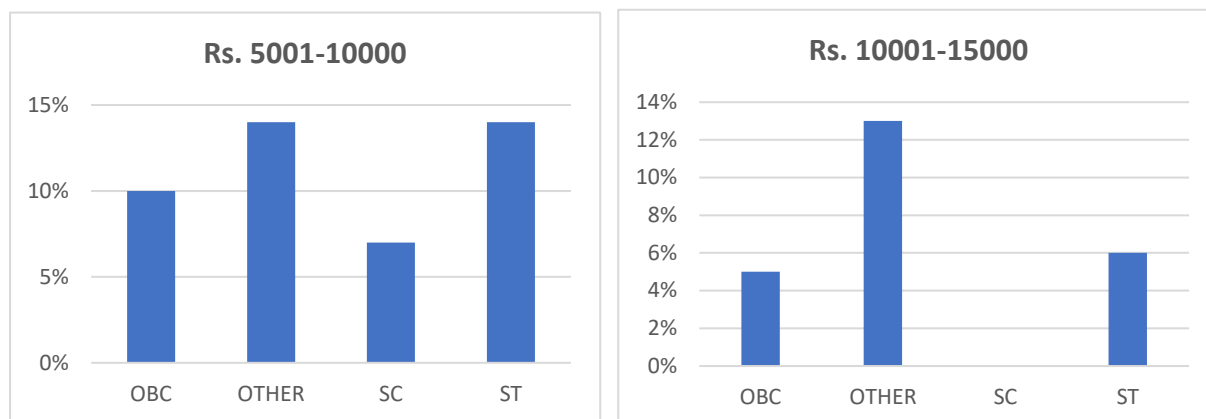
25% of the households across 10 districts are women headed. 36% of OBC, 30% of SC, 22% of ST and 18% Other households are headed by women. This shows that a significant number of marginalised communities' households have female head, and likely to be

earning members also, besides caring for young and aged. Of the highest reporting women headed households, Palakkad district accounts for 22%, Kozhikode 18% and Alappuzha for 16% of all districts.

II. Income Range

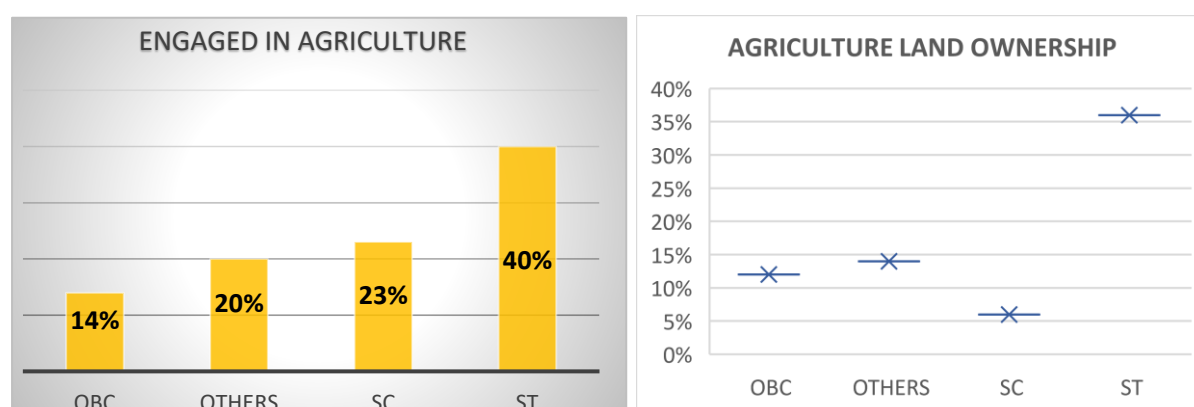


As shown in the graphs, the highest percentage of SC and STs fall in low income group of Rs. 5000 and below, but their number starts diminishing in higher income groups, to the extent of no representation of SCs in the income range of Rs. 15001-20,000. However, SCs register an unusual 3% presence in highest income group of 25001 and above, followed by OBCs, Others and STs.



The data present a poor economic status, particularly of SCs and STs. Poor income has a direct ramification on the status on housing and healthcare and other quality care and amenities the marginalised communities can afford and prioritise.

III. Land Ownership for Agriculture



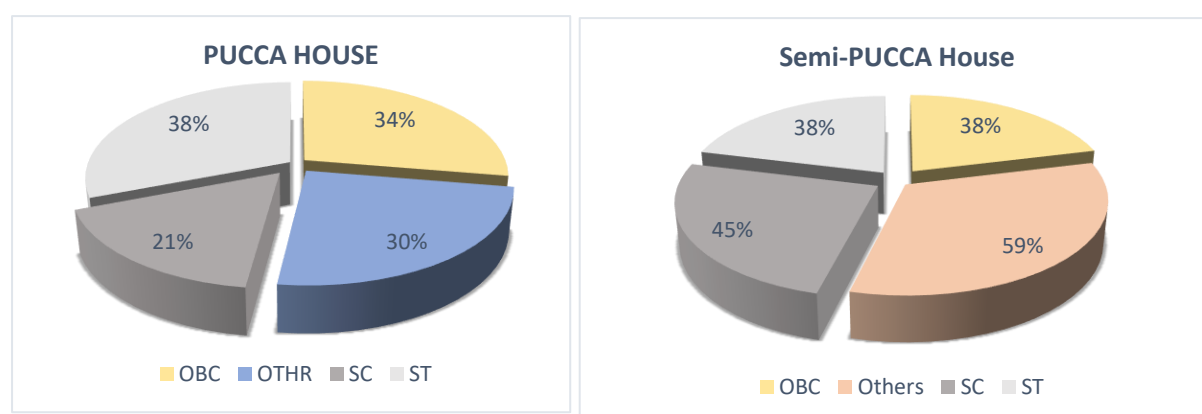
The income loss as analysed above, also directly relates with the nature of livelihood respondents are engaged into. The analysis shows that of 829 respondents, only 14% are engaged in agriculture, of which 85% own agricultural land. SCs have least percentage of land ownership at 6%, while 36% of STs are seen to have land ownership followed by 12 % OBCs. A very insignificant number of households practice lease farming. Overall, a very small percentage of respondents are reliant on agriculture for livelihood. This insinuates that majority of population is engaged in off-farm livelihoods.

While SCs have negligible land ownership for agriculture, in the absence of other data about how profitable agriculture is to STs, productivity of their land, inability to invest in agricultural inputs, and indebtedness etc., it cannot be said how well agriculture is fetching them, despite showing high land ownership. Moreover, they also maybe engaged in non-agricultural livelihood, like fisheries and daily wage, for which disaggregated data are not available for the analysis.

NOTE: For the rest of 83% respondents and the nature of livelihood they are into, the JDNA tool didn't have any household level enquiries. The same were conducted through Focus Group Discussions which did not give the caste disaggregated findings, hence no data were available for analysis.

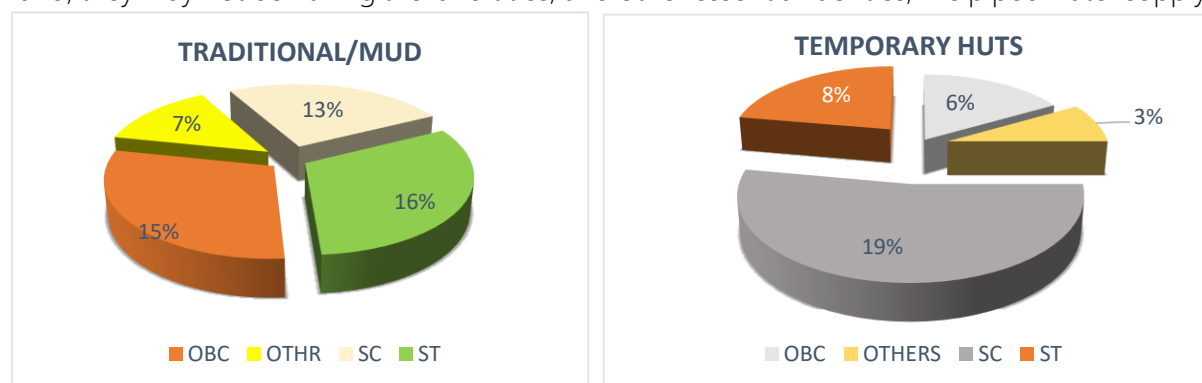
Of 829 respondents, only 14% are engaged in agriculture, of which 85% own agricultural land. Of this only 6% SCs own land.

IV. TYPE OF HOUSING



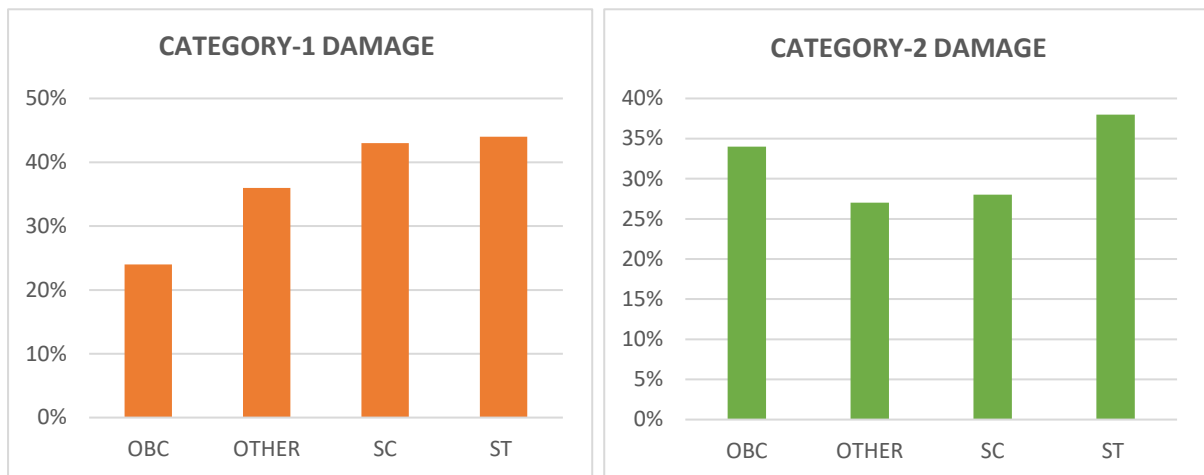
The data reveal higher presence of STs and OBCs in pucca houses. Fewer SCs live in pucca houses, whilst a high number of them live in semi-pucca houses.

19% of SCs live in temporary huts and 16% of STs live in traditional mud houses. The temporary huts and traditional mud houses are typically fragile structures, mostly to be seen in scattered and remote areas. Since there is a likelihood of them being built on public land/encroached land, they may not be having the land titles, and other essential facilities, like piped water supply.



Majority of SCs (45%) live in semi pucca houses and a high percentage of 19% SCs live in temporary huts, followed by 16% of STs living in traditional mud houses.

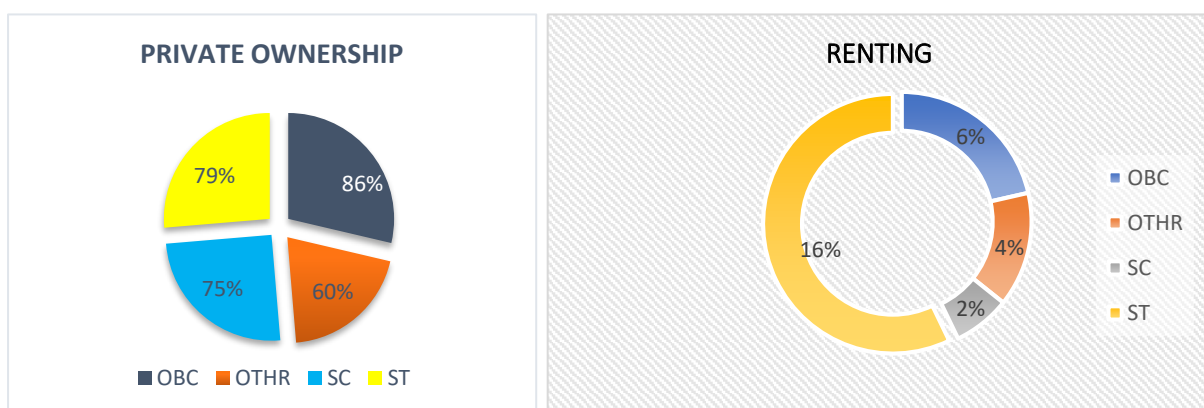
V. HOUSE DAMAGE



The graphs reveal higher number of SC and ST households reported Category 1 (fully damages) and Category 2 damages (partially damaged), while the OBCs reported higher in Category 3 damage (minor damage). Category 1 and Category 2 put together, of total 420 respondents 70% of SCs and 81% of STs suffered severe shelter damage. Category 3 (minor damage) was reported majorly by 37% of OBCs and 34% of Others.

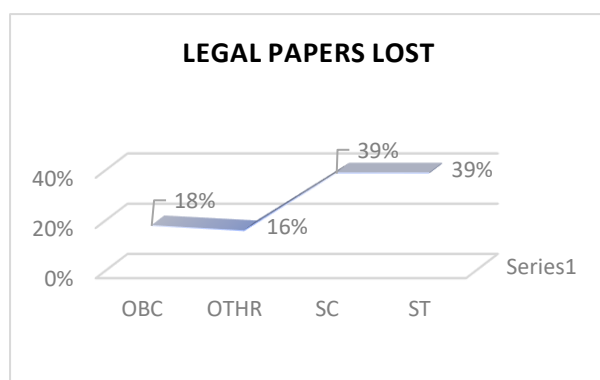
The categories of damage correlated with data on with the type of houses occupied by SCs and STs in above analysis, reveals the obvious vulnerability of the communities. Since the SCs live mainly in temporary huts and semi pucca houses, with many STs living in traditional mud houses, majority of their houses were totally collapsed. Those with higher number of pucca houses reported lesser damage.

VI. PROPERTY OWNERSHIP



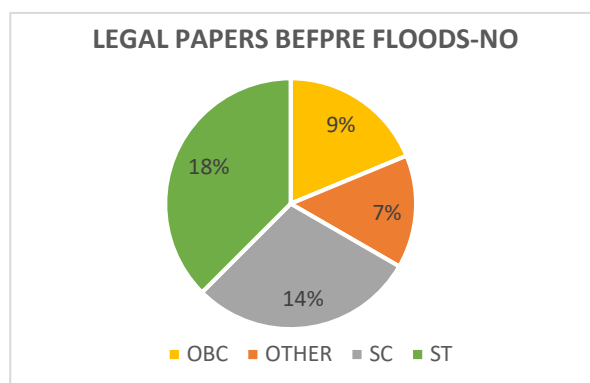
86% of OBCs, 75% of SCs, 79% of STs and 60% of Others owned private property of the total 547respondents. 16% of STs the total 22% respondents live in rented houses as well. However, it is not clear from the assessment what type of property the remaining 25% of SC and of 21% of ST respondents lived in. Moreover, the data dont reveal any significant trend on property ownership by different communities, except that the Others owned least of private property (60%).

VII. LEGAL PAPERS LOST IN DISASTER



The proportion of SCs and STs is way higher than other social categories, which have lost legal documents 39% of SCs and STs respectively, make up for over 50% (78) loss of legal papers, of the total 152 respondents. This is likely to place on them the burden of securing timely duplicate copies or required documentation to claim housing and other compensations for damages suffered. The highest number of losses were reported from Malapuram district with 24% respondents followed by 18% in Wayanad.

A small percentage of 9% (73) of total respondents never possessed property papers prior to the disaster, of which there were 14% of SCs and 18% of STs. They are likely to be among the 17% (139) that have reported to be living with the threat of eviction, majority being 29% of SCs and 26% of STs, followed by 19% (67) OBCs.

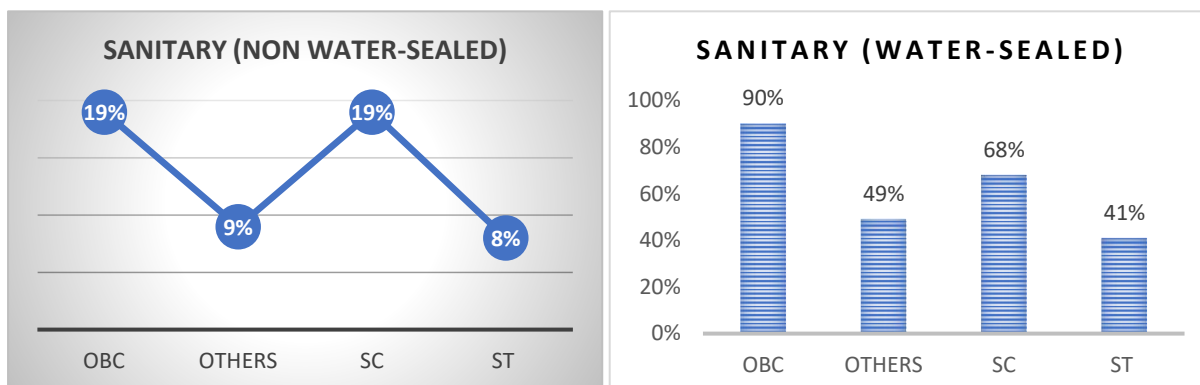


Therefore, it can be seen that those living amid threat of eviction and without legal property papers, both pre and post disaster are majorly SC and STs. This is likely to exclude them from immediate compensation and long term recovery support from the Government. The essential services are predominantly linked with legal and authorised status of land / property ownership of inhabitants. Shelter safety is directly related with other forms of security for women and children, who also get exposed to various socio-economic threats when already 'illegal' status gets exposed and exacerbated by disasters. There may be a possibility of SCs and STs living on Government land also, often categorised as 'encroachers', but often traditional dwellers.

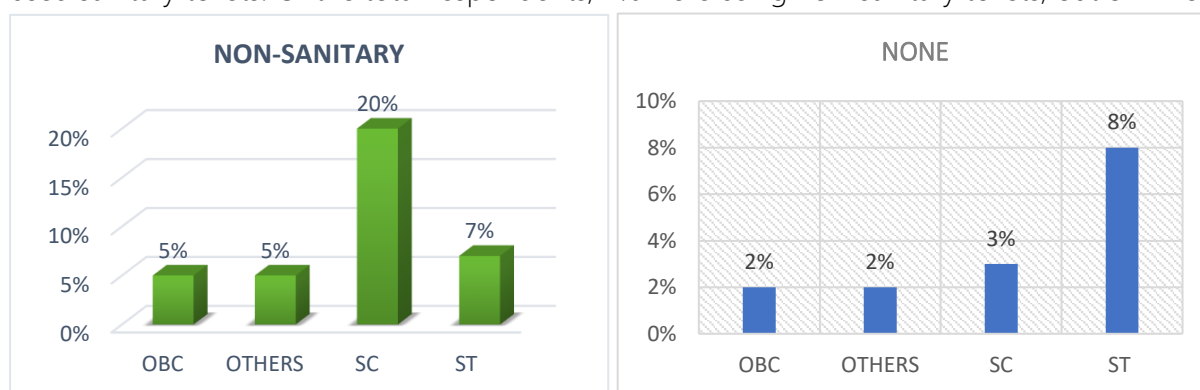
At present, the compensation is tied to the legality of the property, and not the actual loss suffered by respondents, regardless of legal status of property/house. Such an arrangement is likely to deprive the traditional dwellers and so called 'encroachers' their entitlements, for lack of legal papers. Moreover, in the absence of legal documentation, the affected are more likely to approach private money lender on high rate of interest to rebuild their shelters and livelihood. This can push them into a debt trap to unending poverty.

VIII. Water, Sanitation and Hygiene

(i) Type of Sanitation Pre-Disaster



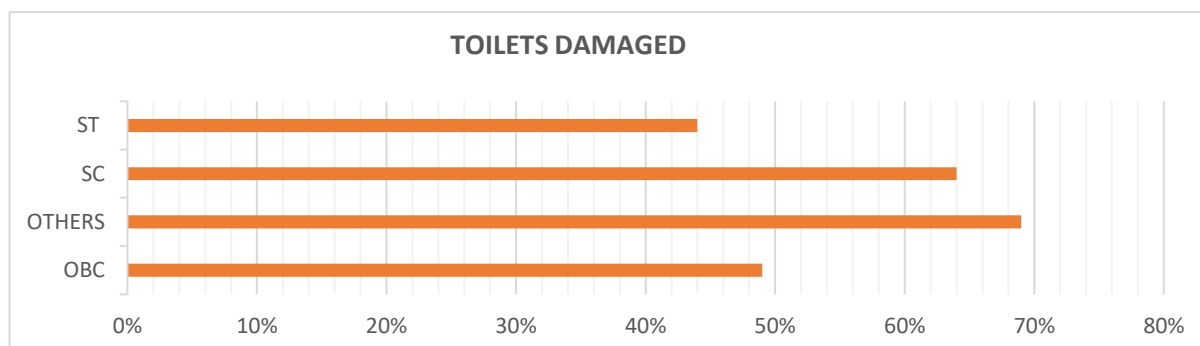
Of 704 respondents to the question of sanitation pre-disaster scenario, the graphs show 90% of respondents were using sanitary toilets (water-sealed and non-water sealed together). However, OBCs were higher than other communities, while only 49% of STs and 50% of Others used sanitary toilets. Of the total respondents, 7% were using non-sanitary toilets, out of which



are 20% of SCs. And, of a miniscule 3% who denied using any form of sanitation facility, 8% are of the STs.

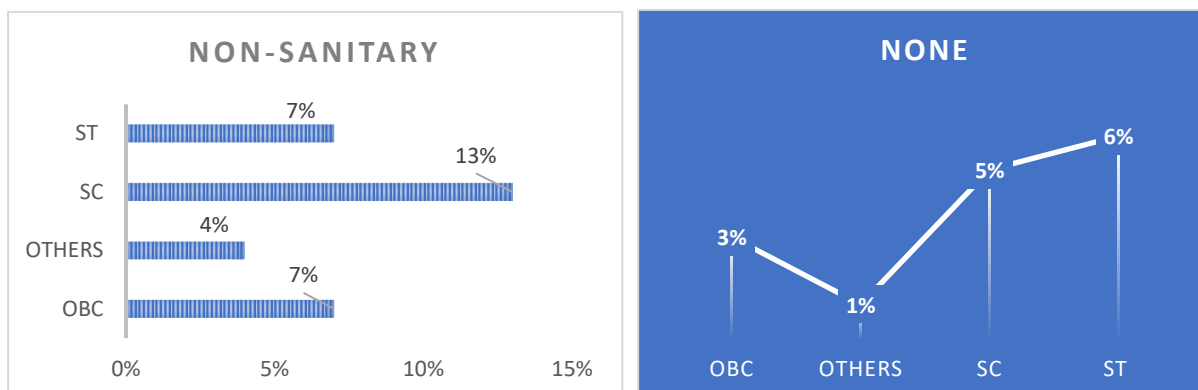
Therefore, data reveals that OBCs outnumber other communities in using sanitary facility. On the other hand, STs rank lowest on usage of sanitary toilets, followed by Others and SCs. However, even from the smaller number of responses, a higher proportion of SCs used non-sanitary toilets, and majority of ST respondents denied using any facility, indicating to the practice of open defecation.

(ii) Toilets Damages

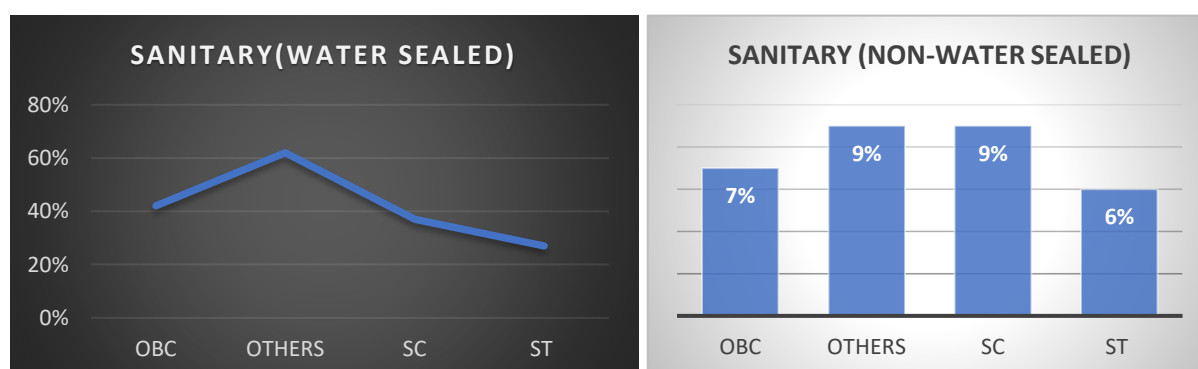


47% of total respondents reported damage of toilets in the disaster. Of these, as can be seen in the graph, maximum damages were suffered by the Others, followed by SC. Studied together with the sanitation facility used by these communities as analysed above, it is evident that since STs used minimal sanitation facilities, with majority of OBCs using sanitary toilets, they reported more damage of toilets than any other community, STs reporting the least followed by SCs. For the remaining respondents, there is no data for analysis of the nature of damage or sanitation practices.

(iii) Type of Sanitation Post-Disaster

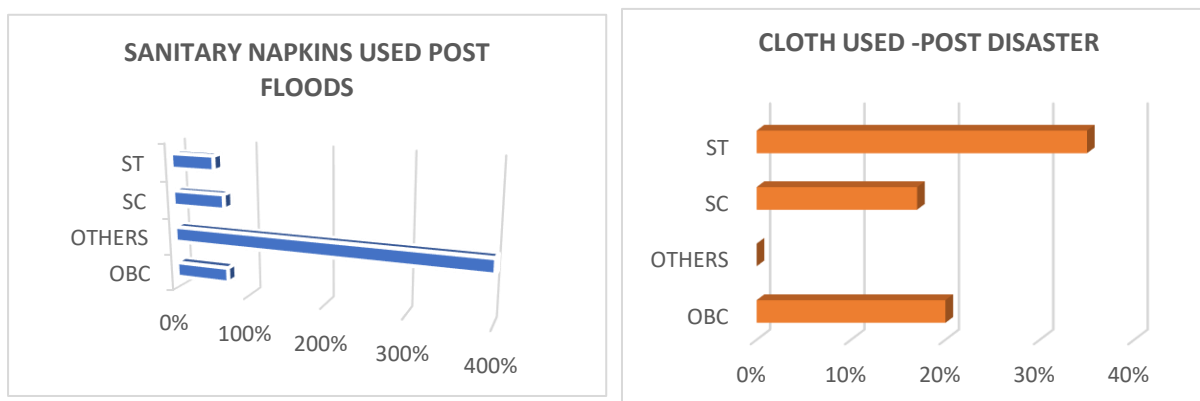


The graphs reveal that of the total 434 respondents, 11% respondents were using non-sanitary toilets post disasters. Of these, SCs ranked higher than other communities in continuing he usage of non-sanitary toilets (13% of them). The total number of respondents has also registered a drop by 62% in comparison with 704 respondents in pre-disaster status of sanitation enquiry.



Also, pre-disaster scenario, 129 respondents stated using sanitary (non-water sealed) toilets, the numbers of which dropped by 40% post disaster, with the damage of 47% toilets shown above. A total of 365 (84%) respondents stated using sanitary toilets (both water-sealed and non-water sealed) even after the disaster. **Of this only 33% of STs used sanitary toilets**, followed by 46% of SCs and 49% of OBCs. The number of respondents using 'none' of these sanitary facilities, are almost the same to the number of respondents who denied using any sanitary facility even before the disaster. Of these also, STs and SCs rank higher, indicator open defecation practice.

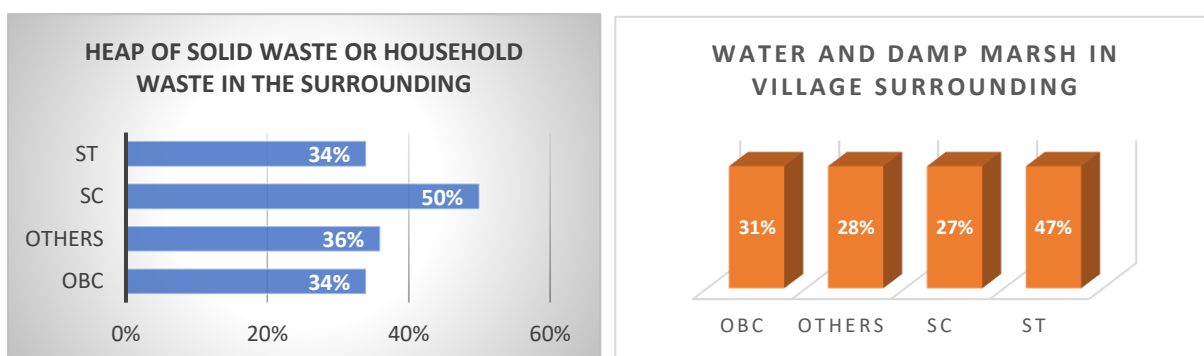
(iv) Menstrual Practices Post Disaster



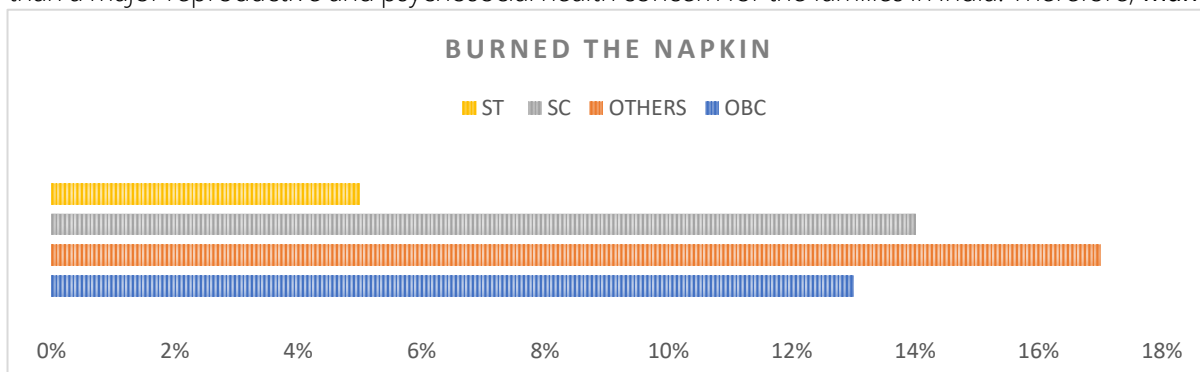
When it comes to attending to essential menstrual hygiene requirements, of the 502 respondents, 76% reported using sanitary napkins, and 24% used cloth post disaster. A minority (58%) of ST women and adolescent girls used sanitary napkins post disaster. Besides, a higher number of (35%) ST women and adolescent girls used cloth post disaster.

NOTE- In the absence of data on pre-disaster menstruation practice, the post disaster practices cannot be compared with the general practice among communities with certainty. Access to sanitary napkins may also been restricted due to reduced affordability, availability and accessibility together with attitudinal factors. However, from the available data, it can be stated that SCs had higher access and behavioural inclination toward sanitary napkin, together with OBCs, in normal times as well as disaster.

(v) Disposal of Sanitary Napkin



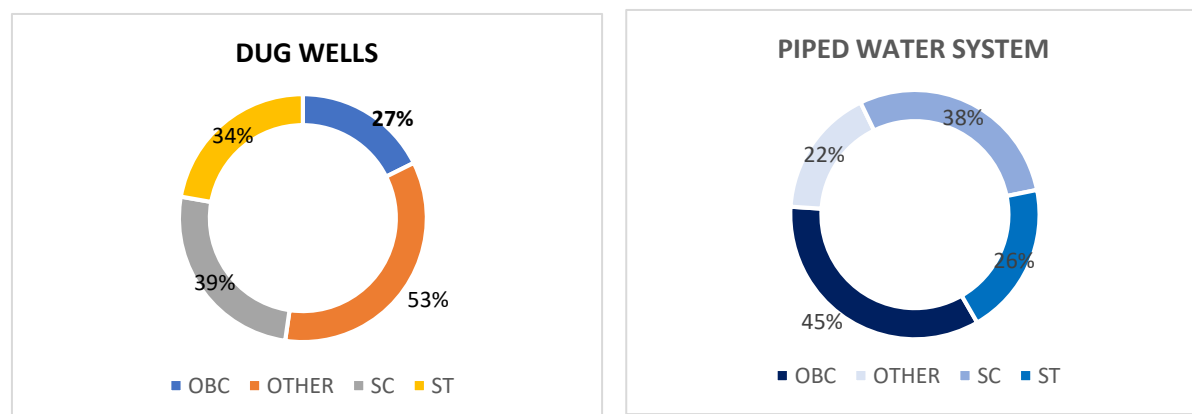
Menstrual hygiene traditionally has been more an issue of embarrassment and unease for women than a major reproductive and psychosocial health concern for the families in India. Therefore, **many**



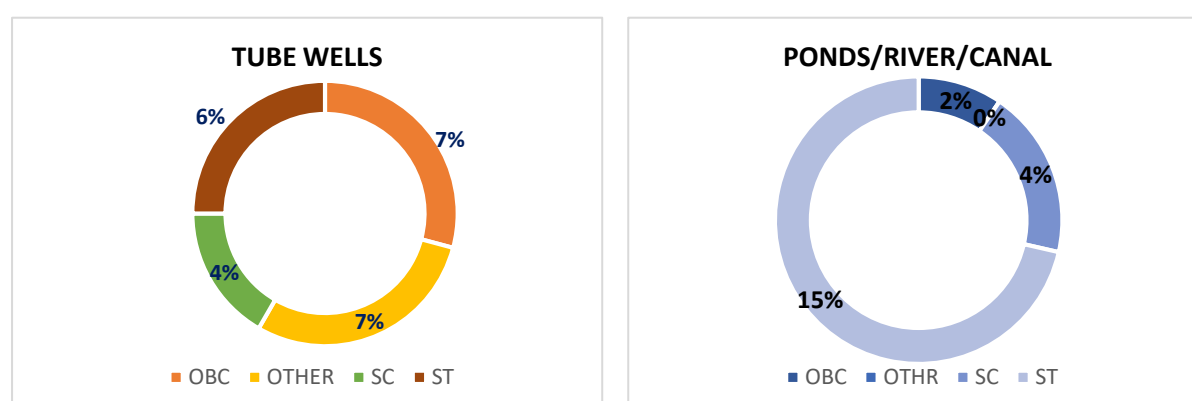
still choose to dispose the napkins in ways that will be risky and unhygienic than safe and publicly known. Of 612 female respondents, and equal number of responses were received on disposal of sanitary napkins by discarding it into the heap of solid waste or household waste in the surrounding and water and damp marsh in village surrounding. Together, 77% of SCs and 69% of STs females practiced these two forms of disposal prominently. Of a small number of respondents (92), higher number of *Others* and SCs reported to burning of the napkin as disposal practice.

While deep burying of soiled napkin in the pit, or even burning of it into a pit and covering it with waste is an acceptable disposal practice in disasters, simply throwing it into the open garbage dump or burning in open air has environment and health issues. In the case of the former, the napkin will get exposed to the surroundings with water bodies and sources, and animals may also dig them off, carrying and scattering the soiled napkin around. Therefore, it appears that most respondents weren't aware of safe disposal practices of sanitary napkins.

IX. SOURCE OF WATER POST DISASTER



As shown in the graphs, the main sources of water on which the respondents are dependent post floods are piped water system and dug wells. Lesser number of OBCs, SCs and STs depend on dug wells, while a majority of OBCs have piped water connection to their households. A high number of STs (15%) are reported dependence on ponds/ canals/ river. STs and Others have lesser number of piped water connection, as compared with OBCs and SCs. STs and Others also show high dependence on tube wells. By contrast, the piped water system, which is provisioned by State Water Board directly to the (authorised) households/colonies, are fewer in



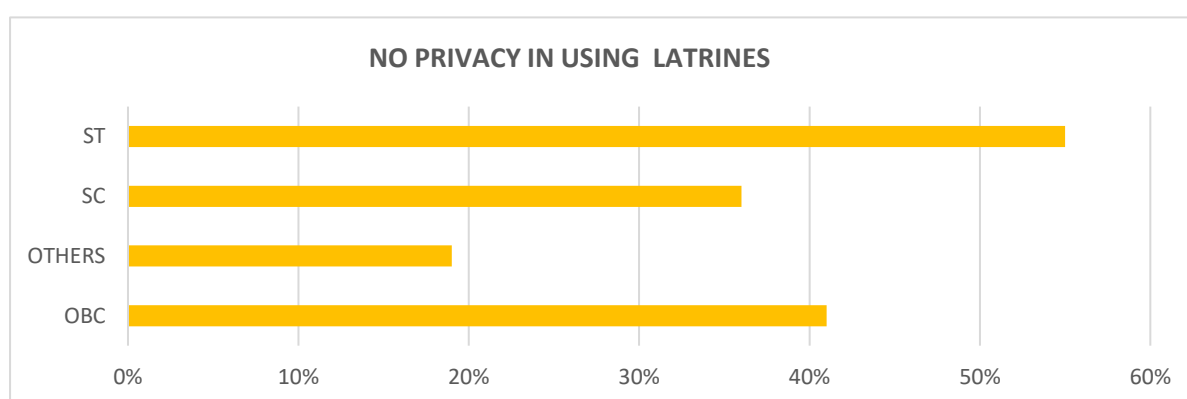
ST and Other households, which generally has a better coverage in Kerala. Highest dependence on piped water is seen in Ernakulum district among OBCs (21%).

Whilst STs reported highest dependence on ponds/river/canals, and SCs showed highest dependence on dug wells. Dependence on dug wells is seen to be higher in Idduki district (18% of 252) among *Others*.

NOTE- The lack of information on pre-disaster water source didn't allow a comparison with post disaster water source data, which could have revealed the loss suffered by each community.

X. PRIVACY IN USING LATRINES FOR WOMEN AND GIRLS POST DISASTER

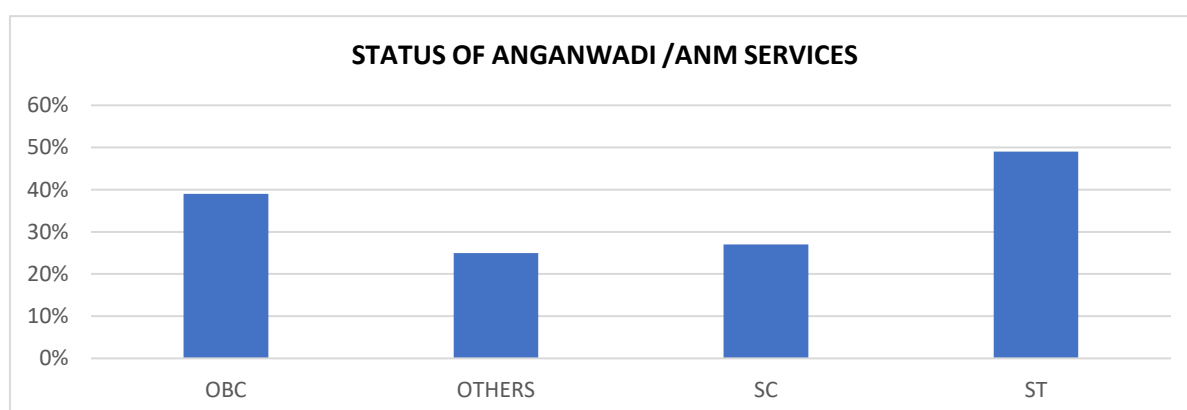
With the disasters, privacy of women and girls in general, and safety at using toilets and bathing gets hugely compromised. Highest number of STs (55%) followed by OBCs (41%) and SCs (36%) reported lack of privacy in using latrines post floods.



Of the total number of reports on lack of privacy, majority were received from Malapuram district (26%), as the district also accounts for nearly 50% of ST population of the JDNA.

NOTE- Regarding privacy for bathing, only 68 respondents from Ernakulum alone attended to the question, hence excluded from analysis.

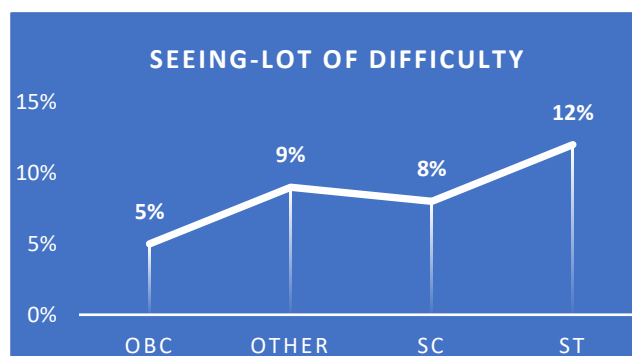
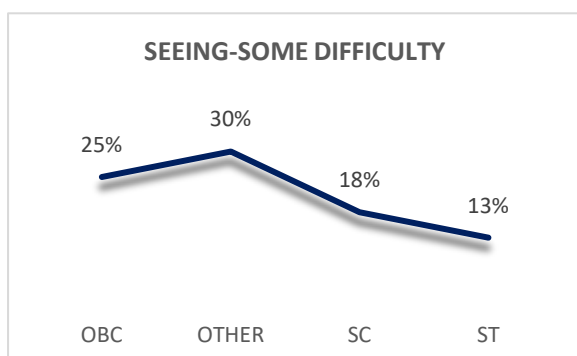
XI. STATUS OF ANGANWADI SERVICES POST FLOOD



The graphs reveal that Anganwadi centres and Auxiliary Nurse Midwife services had not resumed predominantly in ST concentrated areas. Of the 248 respondents, 48% of STs denied the functioning of AWW/ANMs followed by 39% of OBCs. Most of the reports on non-functioning ANW/ANMs came from Malapuram (26%) and Palakkad (25%) districts.

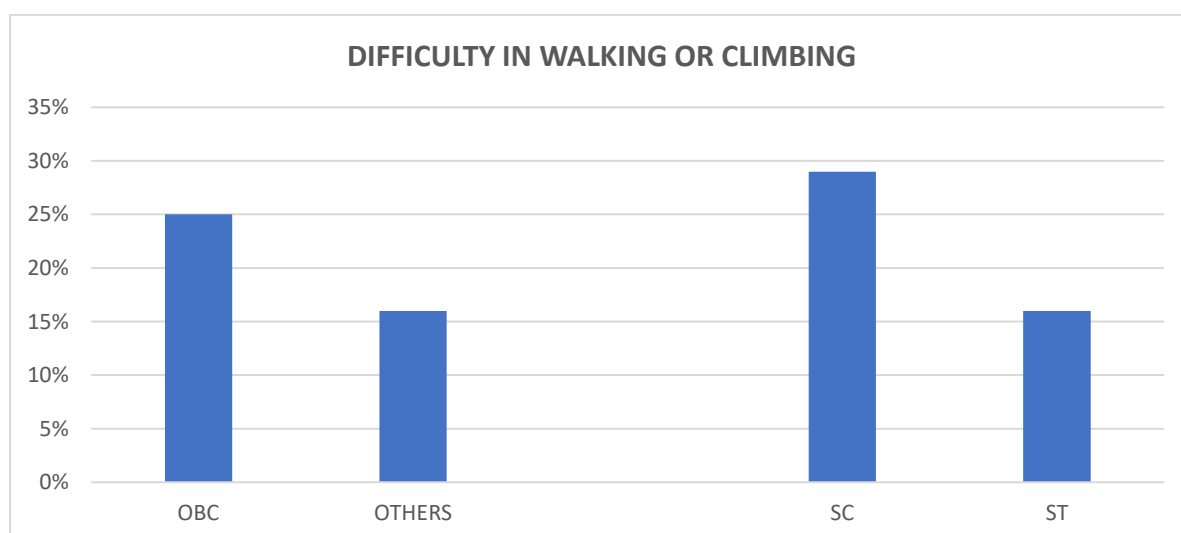
Of the total respondents, the assessment covered 58 pregnant and lactating women. 59% are OBCs, 19% are SCs; 12% are Others and 10% are STs. AWW and ANM services are essential community based nutrition and healthcare services for pregnant and lactating women, and 0-6 years' children for pre-primary education.

The longer the delay in functionalising the Anganwadis, greater is the pressure on families to meet the specific health and nutrition requirements of pregnant and lactating women in ante natal and post-natal care, and 0-6 years' children. Moreover, with destroyed livelihoods, such requirements get either de-prioritised or inadequately addressed.



XII. DIFFICULTY WITH SEEING AND HEARING

25% of OBCs, 30% of Others, 18% of SCs and 13% of STs reported some difficulty with seeing of the total 172 respondents. Of these, Kozhikode reported highest number of cases (20%), followed by 16% from Malapuram and Palakkad, respectively. However, 12% of STs and 9% of Others reported a lot of difficulty in seeing. Of the total 84 respondents, 14% OBC, 13% are SCs, and 11% are STs reported difficulty of varying degrees in hearing (some difficulty, a lot of difficulty and can't do at all).



158 respondents reported trouble with walking or climbing of the total 829 respondents.

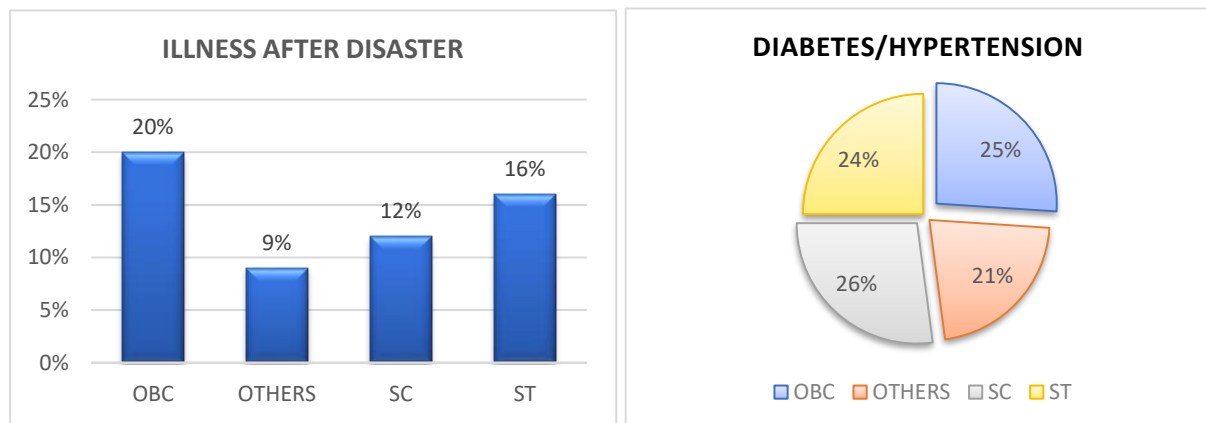
Here, the graph shows that higher number (29%) of SCs faced difficulty in walking or climbing, followed by 25% OBCs respondents. This is indicative of poor physical conditions, which would

have created difficulty for them to be moved to safer places when the disaster struck, exposing their lives to grave danger.

However, in the absence of age or medical information respondents, the difficulty in seeing, hearing and walking or climbing cannot be attributed to old age with certainty though this could be indicative of age related ailments.

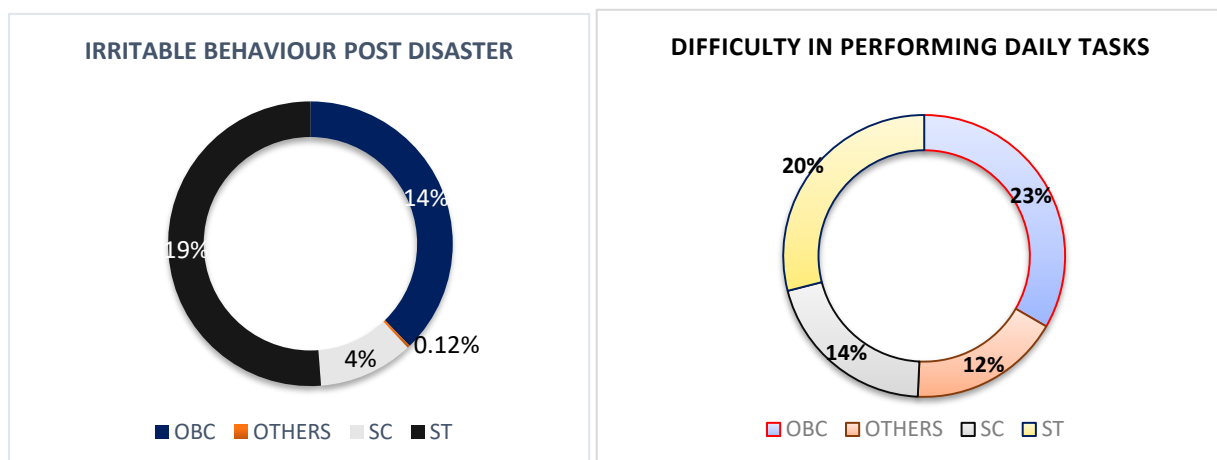
This also calls for placing rescue equipment/boats etc. within the community that have a substantial number of young and aged members, for whom mobility becomes an issue in disasters.

XIII. PSYCHOSOCIAL HEALTH



Of the total 829 respondents, 64% (533) reported different levels and kinds of physical and psycho-social health-related issues, like, illnesses, difficulty in performing daily tasks, disorientation and irritability among family members, while some were already suffering with diabetes and hypertension.

As shown in the graphs, a high number of illnesses were reported by OBCs (20%) and STs (16%), of the 112 respondents. 23% cases of illnesses were reported from Kozhikode alone. 21% of



diabetic/hypertension patients were reported from Kozhikode, followed by 17% from Wayanad and (17%) Kottayam, of the 169 total respondents.

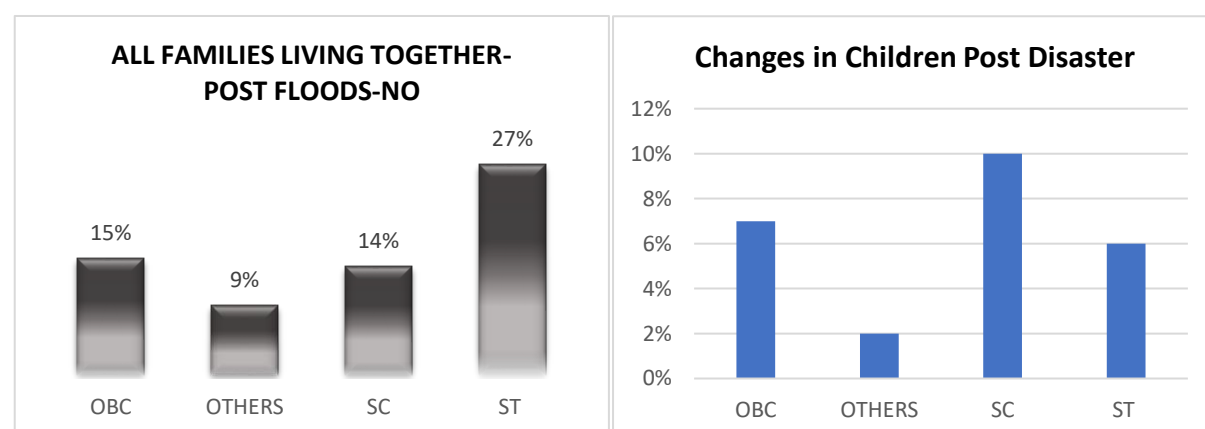
Among the total number of patients with diabetes/hypertension, highest number were reported by SCs followed by OBCs. Of the 72 respondents, most number of OBCs and STs reported unreasonably irritable behaviour by self or family member/s post floods. This reveal the health conditions of marginalised communities, and in particular the SCs and STs, warranting the urgent need for psychosocial care and accompaniment support to overcome the psychosomatic stress, in order to recover emotionally as well.

XIV. Health Services Affected

Health Services Affected Due to Floods	Alapuzha	Eranakulam	Kottayam	Kozhikode	Malappuram	Palakkad	Pathanamthitta	Thrissur	Wayanad	Grand Total
Routine Immunisation	57	12	17	52	86	48	34	8	47	361
Normal Delivery	2	21	3	13	7	12	3	26	16	103
ANC/PNC	8	0	14	9	4	10	2	5	6	58
VHSND	1		5	1	1	0			2	10
Any other reason	18	3	38	12	9	24	1	6	17	128

A range of regular public healthcare services were affected by floods, as the table above shows, across districts. This would have possibly affected the access and availability of primary healthcare services and medications to people reporting illness and hypertension post floods.

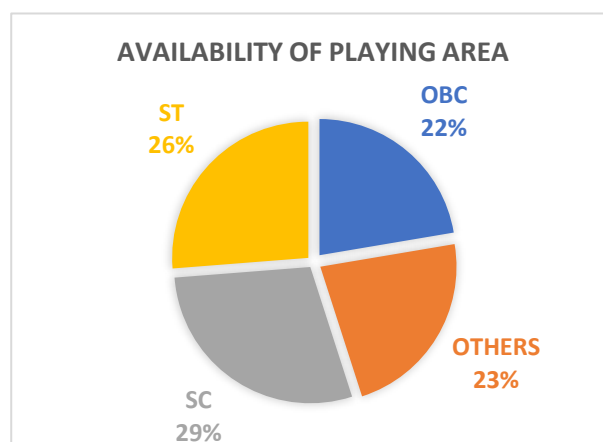
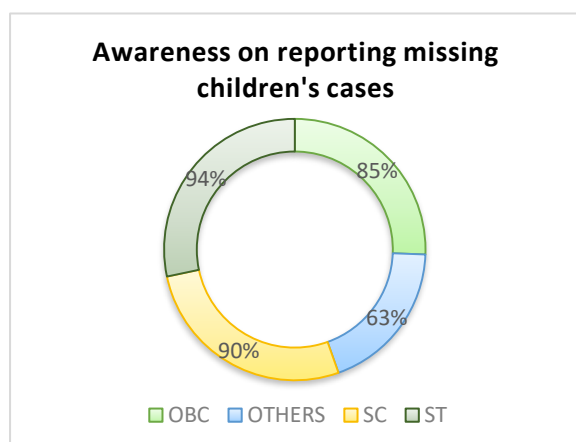
XV. PROTECTION



As depicted in the graphs, highest number of STs reported the family members were not living together post disaster (of 106 respondents). 40% of the reports hailed from Malapuram district

Besides, the entitlements declared by the Government, as immediate relief of Rs. 10,000 was to be given only for those that were registered at relief camp, leaving out others who didn't live in Govt relief camps and took shelter elsewhere. This finding on separated family members, though doesn't clearly answer where they would have gone if not relief camps, would have a possibility of excluding survivors not living in relief camps from immediate support provision of Government and calls for further study of such populations in given scenario.

alone. It is likely the family members, especially children were sent to the relatives' places. However, this led to temporary separation of children from their families.



Of the 42 respondents, majority of SC reported some changes in the children post disaster. Also, highest number of SCs reported lack of playing area of children, followed by STs and OBCs of total 474 respondents.

As per the data, 112 FIRs for missing children were registered with the Police, by 30% of SCs and 18% of OBCs. However, the data revealed that of 576 respondents, almost all communities lacked awareness on whom to approach for support to find missing children. This ignorance was particularly high among STs (94%) and SCs (90%).

These findings together reveal the high vulnerability of children from marginalised communities, especially SCs and STs. The high number of FIRs by SCs also speaks volumes for the fragile environment that resulted in such high number of missing children. The temporary separation from families, triggered by this scale of disaster was likely to have repercussions on children's wellbeing. And a lack of playing area for those in relief camps and post flood has deprived them of a space to vent out their suppressed traumatic experience with their peers.

CONCLUSION

The assessment covered a very small number of SCs and STs, while majority were OBCs. It was through the inter-community data analysis that the underlying vulnerabilities and socio-economic fragility could be compared across the social groups. While all suffered grave losses and damages, the data available revealed how SCs and STs in particular, have been worst hit on several parameters. The assessment misses out majorly on livelihood analysis. Had the household level data been collected on it, or disaggregated analysis of FGDs conducted, it would have allowed a holistic analysis of livelihood fragility and recommendations, thereof. However, the assessment does expose the underbelly of grater damages and losses to SC and ST communities by revealing their income and housing patterns prominently. The findings direct the attention toward the recovery and rebuilding of lives of marginalised communities through **equity based compensation** and recovery measures in different phases by Government and Humanitarian organisations.

C. RECOMMENDATIONS

1. Ensure equity based compensation and recovery aid to the poorest who have lost the precious little, and may not be able to produce required proofs of the losses
2. Delink compensation of housing and other substantial losses of the marginalised communities from legal documentation and cover all actual losses and damages for compensations
3. Ensure that Include non-agricultural communities forming labour force, and those in petty private businesses under State's disaster compensation norms
4. Provision special assistance to children of the marginalised communities for psychosocial counselling
5. Integrate awareness campaigns on menstrual hygiene and safe practices, and child safeguarding among communities in the recovery programmes
6. Provision sanitary toilets and behaviour change communication in recovery programmes through linkages with Swachh Bharat Abhiyan for all the affected communities irrespective of availability of legal documentation of the property.
7. Provision safe hazard resilient housing to all affected communities by linking it up with state/national housing scheme of the Government, prioritising SC, ST, OBC, women headed, old age and widow households
8. Provision free bus passes for children studying in public schools until the families recover from the losses
9. Provide compensation /livelihood support package for daily wages and petty income generation business owners until they secure regular livelihood options.
10. Provide free mobile healthcare assistance in age appropriate manner to all survivors with chronic diseases and the age-related illnesses and care until public health services have resumed at all levels.
11. Ensure timely release of social security pensions to widows, elderly, unemployed to support their basic survival needs.
12. Provision disinfecting all water-sources on immediate basis, and mobile community toilets till the damages ones have been reconstructed

5.10 HERITAGE

As per the Sendai Framework for Disaster Risk Reduction, cultural heritage and its protection *"helps build resilience" and encourages the ability of the affected population to participate in its own recovery.*

DAMAGE ASSESSMENT: Kerala cultural heritage deeply affected by the floods. Both tangible and intangible heritage needs urgent attention towards the recovery and stabilization to start as soon as possible. Most of the communities which run traditional art & culture work are also deeply affected e.g. weaver community. Infrastructure set-up and raw material to run these art & crafts are totally damaged in floods.

There are many local to International heritage sites in Kerala, those also need special attention and technical expertise for restoration. E.g. The Kole wetlands is a unique wetlands lying in Thrissur District in Kerala, India. The Kole Wetlands is one of largest, highly productive and threatened wetlands in Kerala and has been declared in Ramsar Convention for protection and it comes in Central Asian Flyway of migratory birds. Loss of infrastructure, damage to bunds are major problem and due to that secondary risk of livelihood is also increasing.

There are many ancient religious temples and sites also with valuable murals, paintings, e.g. Pallimanna temple is situated in the banks of a small river called Aloor river, which is originating from Vazhani dam. Archeological Survey of India declared the mural paintings (dated 17th-18th Century) in the walls of this temple as protected monument of national importance since 1983. There are damages to mural paintings, disrupted pathways, material loss.

Similarly, there are many heritage sites in all the flood affected districts which needs urgent and technical assistance to recover cultural heritage.

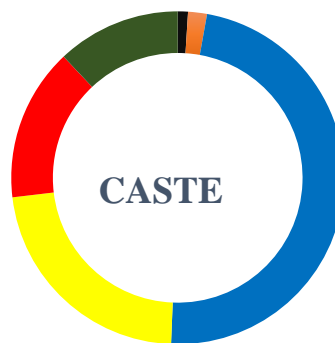
5.11 Communication

Radio and television are two common and widely available and accessible modes of communication in order to pass on information especially in normal times. The JDNA assessment shows that out of the total number of respondents 50 percent have access to television and 28 percent listens to Radio. Out of the people watching television 87 percent use cable and satellite channel and only 13 percent is using Doordarshan as source of information.

When you come to the district wise segregation of the use to Cable and Satellite channels and average of 78 percentage of people watch television with cable and satellite connection in their houses. In District Malappuram, only 30 percent watches Cable and Satellite channels. But Doordarshan is

having a reach of only 13 percent average with maximum people listening to radio in Malappuram, 54 percent. 62 percent of people watch television on a regular basis, 9 percent watch at least once in a week, 4 percent watch television less than a week and 25 percent doesn't watch television at all.

When it comes to Radio, 55 percent people doesn't listen to radio. Out of the rest 45 percent 27 percent listens almost every day, 10 percent listens at least once in a week and 8 percent listens less than a week. When you look into the preference of the radio channel 40 percent are listening to All India radio, 26 percent listens Private FM channels, 6 percent listens to Community radio stations and 28 percent goes for other available mode of radio networks.



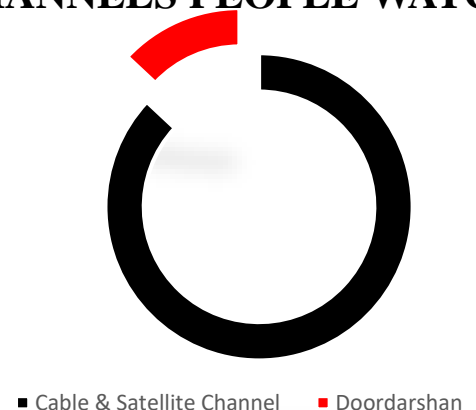
■ General
■ Others

■ Most Backward Class
■ Schedule Caste (SC)

■ Other Backward Caste (OBC)
■ Schedule Tribe (ST)

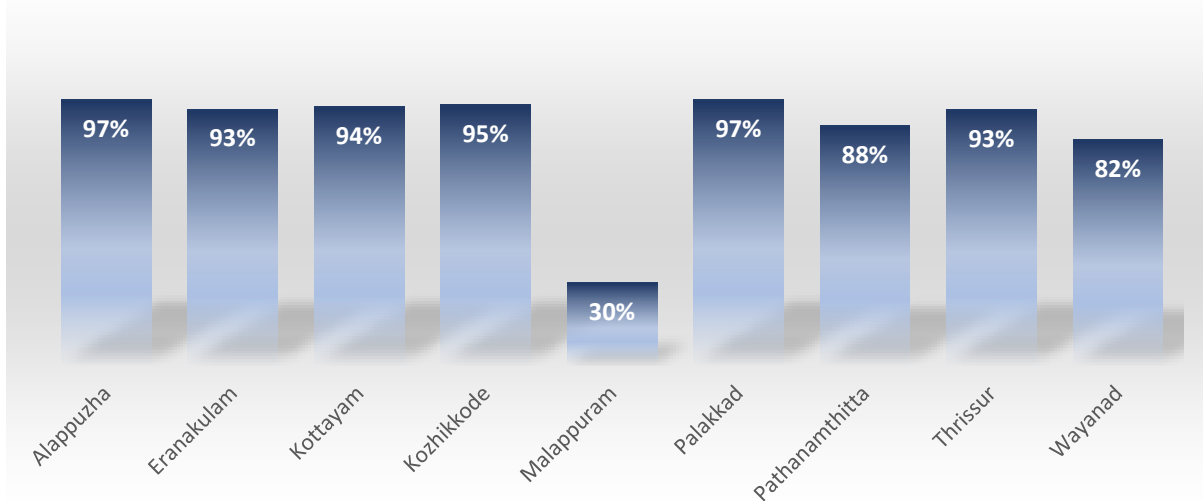


CHANNELS PEOPLE WATCH



■ Cable & Satellite Channel ■ Doordarshan

CABLE & SATELLITE CHANNEL

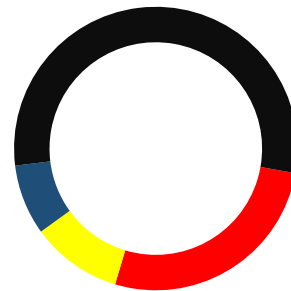


FREQUENCY OF WATCHING TELEVISION



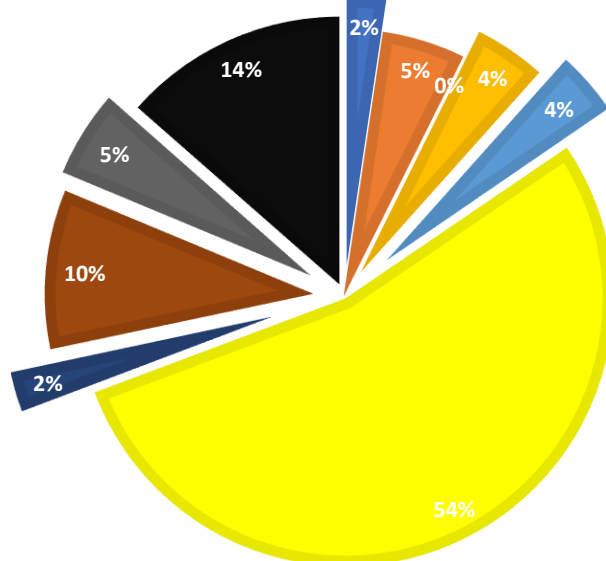
■ Almost Everyday
 ■ At least once a week
 ■ Less than once a week
 ■ Not at all

FREQUENCY OF LISTENING TO RADIO



■ Almost Everyday
 ■ At least once a week
 ■ Less than once a week
 ■ Not at all

DOORDARSHAN



■ Alappuzha
 ■ Ernakulam
 ■ Idukki
 ■ Kottayam
 ■ Kozhikkode
 ■ Malappuram
 ■ Palakkad
 ■ Pathanamthitta
 ■ Thrissur
 ■ Wayanad

6.Assement Methodology

The MS JDNA was coordinated by Sphere India in the month of September 2018. The key objectives of the assessment are:

- Identify severely affected geographic areas within 10 districts.
- Mapping critical needs in the immediate aftermath of the
- extreme event (30 – 90 days) for each of the core sectors
- Provides general recommendations to inform strategic decisions on resource mobilization and response planning for medium to long term

a. Methodology

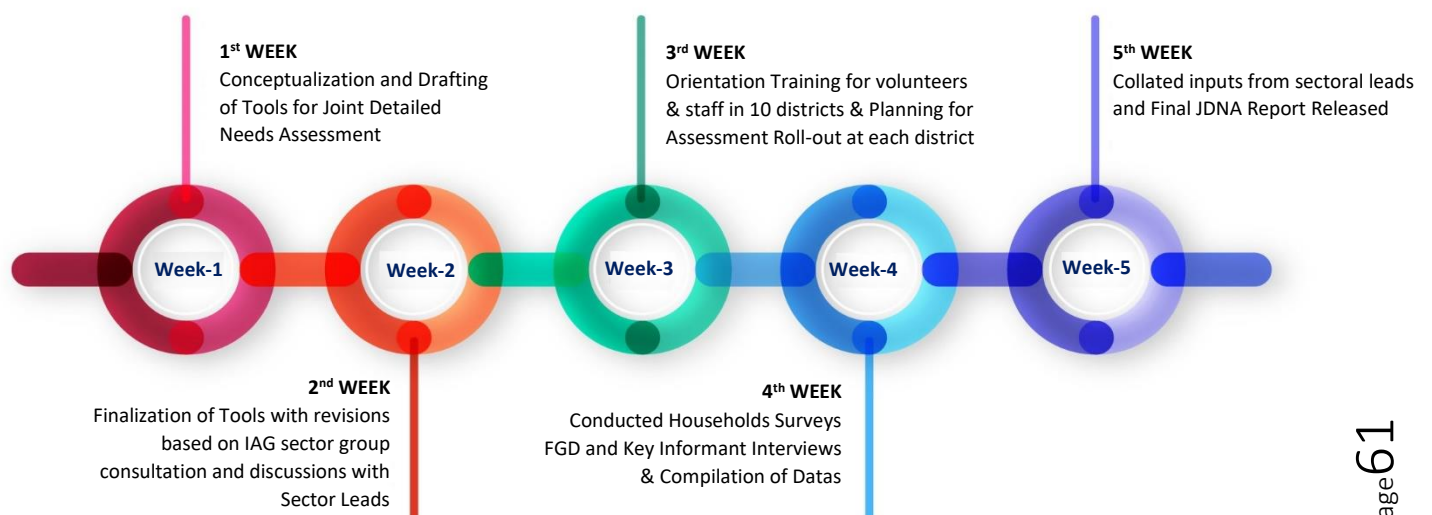
- Training on JDNA
- Identification of Worst affected district from Primary & Secondary information's
- JDNA Team building and planning
- Identification of Worst affected block/ Panchayat in consultation to District EOC/Emergency Officer/BDO /NGOs
- Team leader for the operation and communication standards
- Field Assessments with FGD and key informant interview's

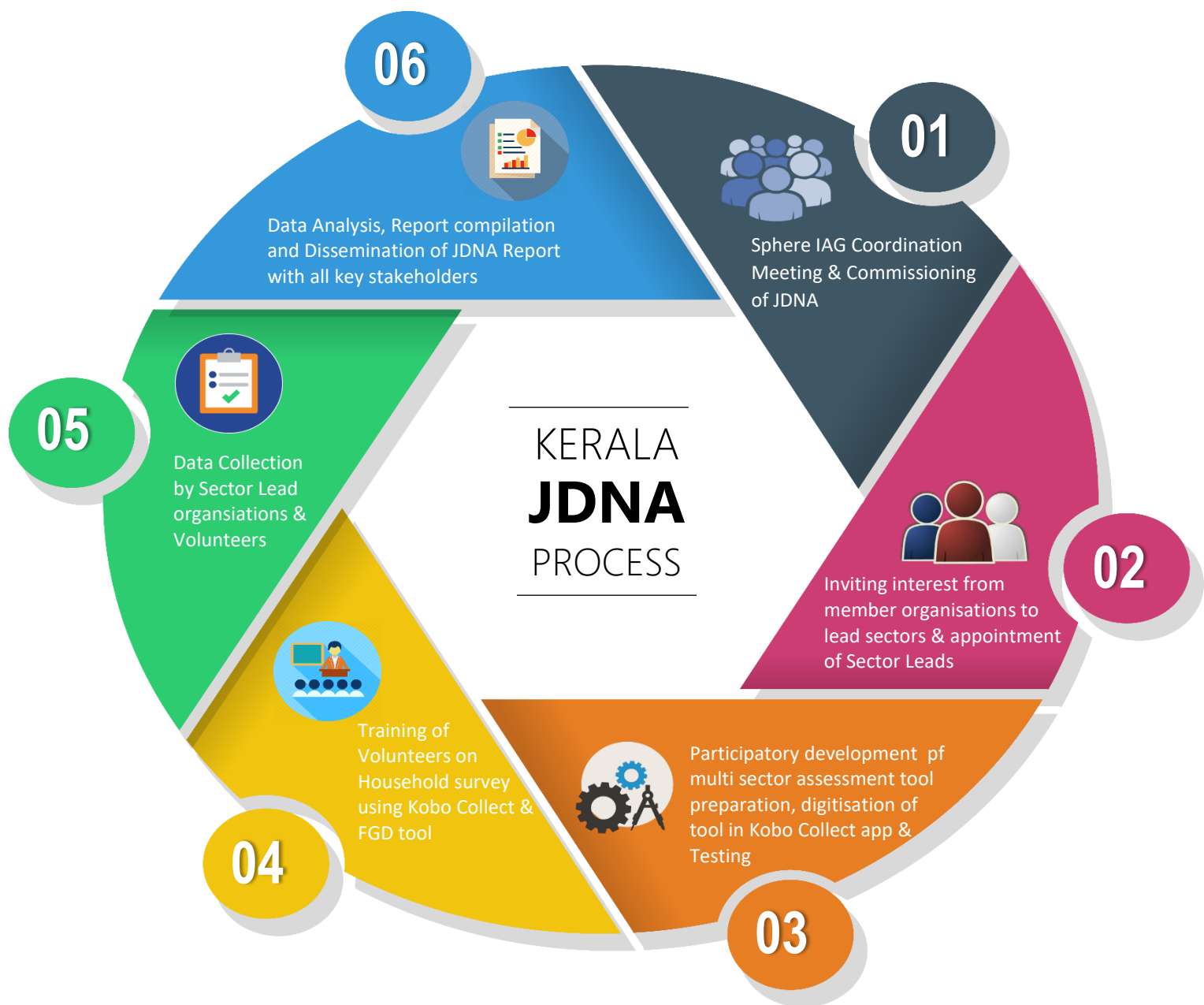
- Debriefing by all the team leaders to the Sphere India IAG process
- Analysis and JDNA Reporting by sector leads
- Report compilation

b. Tools

- Household Data Collection tool
- Kobo Collect Android App
- FGD Forms
- Guidance note on use of the formats

JDNA Timeline





7. Acknowledgement

On behalf of Sphere India, we are thankful to Government of Kerala for their support in strengthening Inter-Agency coordination process in Kerala. We are also grateful to all the District Collectors, PRI Members and other emerging local initiatives for their whole-hearted involvement in the IAG strengthening & assessment process. We are especially appreciative of the commitment and spirit of the volunteers and communities who participated in the process of data collection exercise.

We would like to specially thanks all our sector leads organisations as mentioned in Annexure for their role in the entire process of assessment from finalisation of tools, training of volunteers, data analysis and report writing. We will also like to acknowledge the support and technical inputs received for development of the assessment tools and facilitation of the assessment process by Mr.Puneet Srivastava of Water Aid, Mr.Manish Jain of Islamic Relief, Ms. Annie George & Ms. Charu Bist of UNDP, Dr. Meeta Mathur of ACF, Dr.Pavan Murthy of WHO, Mr. Rama Rao of Child Fund India, Mr. Pabhat of Save the children, Mr. Ajay & Mr. Rajendra of NCDHR, Mr. Abhilash of Plan India,

The consistent effort and support extended by other Sphere India members who participated in the process with their valuable inputs is also highly appreciated. We are thankful to IGSSS, Oxfam India, WaterAid, CARE India, Caritas India, World Vision India, Child Fund India, Save the children India and Change Alliance for providing logistic and other support for enabling participation of volunteers. A special thanks to all the local partner NGOs and academic institutions without whose help it won't have been possible to consolidate this effort. Sphere India is grateful for their valuable contributions. It won't be possible to name all but we would like to thank all stake holders, advisors, professionals who have contributed to the process.

Vikrant Mahajan
CEO, Sphere India

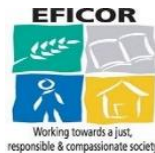
8. Annexures

S.L No	Name of the Sector	Name of the Lead Organisation	Name of the sector Lead	Name of the Sector coordinator
1	WASH	Oxfam	Andrew Naskar Domaki Bhutia	Utkarsh Pandey
2	Shelter	CARE	Eilia Jafar	Madhusudan
3	Nutrition	Save the children	Dr. Antaryami	Hari Balaji VR
4	Livelihood	Christian Aid/RedR	Sinu Chacko	Manoranjana Behera
5	Health	Doctors For You	Dr. Ravikant	Hari Balaji VR
6	Protection	Caritas India	Lee Macqueen Paul	Praveen Suresh
7	Education	Plan	Tushar Kanti Dash	Vivek Coelho
8	Disability	Handicap International	Annie Patri	Kennedy
9	Heritage	ICOMOS	Aparna Tandon	Madhusudan
10	Communication	Sphere India	Vikrant Mahajan	Praveen Suresh
11	Overall Coordination By	Sphere India, UNICEF	Vikrant Mahajan, Sarbjit Singh	

Locally Led By-



Supported By-





Sphere India

National Coalition of Humanitarian Agencies in India

**Compiled & Designed By-
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