



Sphere India
National Coalition of Humanitarian Agencies in India



CYCLONE MICHAUNG

JOINT RAPID NEED ASSESSMENT REPORT ANDHRA PRADESH

DECEMBER 2023

CYCLONE MICHAUNG JRNA REPORT

ANDHRA PRADESH

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Acknowledgment

This Joint Rapid Needs Assessment (JRNA) would not have been possible without the cooperation and constant support of volunteers, local member organizations of the Inter-Agency Group of Andhra Pradesh, Caritas India, SFIRD, SNIRD, Brightway Foundation, CJWS, SHADOWS, district and village officials, and communities from affected areas. We are indebted to all of them, exigencies of space and time constraints limit us from naming/mentioning each one of them here.

However, we would like to acknowledge with deep gratitude, the guidance, cooperation, and support extended by IAG Andhra Pradesh for mobilizing the volunteers to collect real-time information, provide valuable inputs, and coordinate the assessment process. We would also like to acknowledge the sectoral experts, report writers, and editors who contributed their valuable time in reading and editing this report.

And, above all, the communities of affected areas of Andhra Pradesh who, even amidst the adversities took out time and patiently provided answers to all the questions put to them, without any reservations.

Sphere India
12th December 2023

About JRNA and Disclaimer

As per Sphere India Standard Operating Procedures, adapted to address the emergency situation, a Joint Rapid Needs Assessment (JRNA) was conducted across the cyclone affected areas of Andhra Pradesh; data collection was conducted through secondary sources, field visits, personal interviews, observations, and information provided by local authorities and CBOs. The organizations engaged in response have also shared their observation notes to incorporate in the report. Also, on-ground information was collected using smart phones through a data collection mobile application and collated by the core team taking due consent from the villagers. The aim was to gather information on the impact of cyclone on the community members and understand their recovery needs, collate, and analyze the findings, and disseminate the information to the State, National, and international agencies.

Disclaimer

The interpretations, data, views, and opinions expressed in this report are collected from various sources including Government led institutions, line departments, field assessments by volunteers, and team members deployed by Organizations who took initiative in Humanitarian Assistance activities and from secondary media sources. It does not necessarily carry the views and opinions of Sphere India or any humanitarian organization as a collective directly or indirectly. It is interpreted only for assessment purposes.

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EXECUTIVE SUMMARY

The Cyclone Michaung made landfall in Bapatla between Nellore and Machilipatnam in Andhra Pradesh, on December 6th as a super cyclonic storm. Heavy rains led to inundation in various areas across Andhra Pradesh, Puducherry, and Tamil Nadu in the past week. Parts of Chattisgarh including Raipur, Durg, Bilaspur, and Bastar received light rains and lowered temperatures due to Cyclone Michaung. The major affected districts include Nellore, Prakasam, Guntur, Krishna, Bapatla in Andhra Pradesh and Chengalpattu, Chennai, Thiruvallur, Kancheepuram districts in Tamil Nadu. As per media report, almost 40 lakh people in Andhra Pradesh and 4 lakh people in Tamil Nadu were affected. In response to the flood, relief and response efforts were initiated in Andhra Pradesh by government and humanitarian agencies. The primary focus of these initiatives was to provide immediate assistance and support to the affected population. This included the provision of essential supplies such as food, clean water, medical aid, and temporary shelter for those who had been displaced. As per the guidance of Inter-Agency Coordination Committee, JRNA was conducted to determine urgent priorities for response and relief efforts.

SECTORAL FINDINGS AND URGENT NEEDS



Food Security and Livelihoods: Cyclone Michaung has wreaked havoc in the affected areas, causing widespread damage to agricultural crops, food stocks, and livelihoods, disrupting food production and supply chains. This has led to a critical shortage of nutritious food, escalating food insecurity and malnutrition risks among the affected population. The cyclone's destructive force extends beyond agriculture, affecting businesses and industries, resulting in the loss of livelihoods for farmers and daily wage earners. Urgent measures are imperative to address these food and nutrition challenges and support livelihood recovery. Priorities include immediate emergency food assistance, ensuring access to nutritious food, and revitalizing agricultural activities, market infrastructure, and supply chains to revive economic prospects and enhance self-sufficiency. Facilitating access to key schemes such as MGNREGA, NRLM, SRLM, TPDS, PM-Poshan, and state-specific social protection schemes is crucial in this recovery effort.

Health: The cyclone has had a significant impact on the health sector. Health facilities, including hospitals and clinics, have been damaged, hindering access to healthcare services. The destruction of infrastructure and disrupted transportation has further limited the availability of medical care. The cyclone's aftermath has also increased the risk of waterborne diseases and vector-borne illnesses due to contaminated water sources and stagnant water. *Medical teams need to be deployed, and essential medicines and supplies must be provided. Temporary health clinics and mobile units can be established in the affected areas to ensure healthcare access. Public health campaigns are crucial to promote hygiene practices and prevent the spread of diseases. Additionally, psychosocial support and counseling services should be made available to address the mental health needs of the affected population.*

Education: The aftermath of Cyclone Michuung has left a devastating impact on the education sector, with a majority of schools non-functional due to reasons such as power shortages, schools being converted into relief camps and inundation. Classrooms and educational materials have faced destruction, disrupting the learning process and forcing the closure of educational institutions. The cyclone's consequences have further displaced teachers and students, posing significant challenges, particularly for vulnerable groups such as children with disabilities and those residing in remote areas. Urgent action is essential to repair and reconstruct damaged schools, resuming normalcy, and providing temporary learning spaces and materials to ensure the continuity of education in the affected regions.

Shelter: The respondents in the surveyed areas of Andhra Pradesh are currently residing in various locations, including their own homes, relatives' houses, and relief camps. Unfortunately, the devastating impact of the cyclone has exacerbated the housing situation, leading to widespread destruction. Many houses, and toilets have either completely collapsed or suffered partial collapse, rendering them uninhabitable. *Urgent provision of temporary shelters, equipped with essential items such as blankets, mattresses, clothing, cots, hygiene products, tarpaulins, sanitary pads, cooking stoves, and utensils, is required for families.*

WaSH: The cyclone has had a severe impact on Water, Sanitation, and Hygiene conditions in the affected areas. Water sources have been contaminated due to flooding and damaged sanitation systems. This has resulted in limited access to clean drinking water, increasing the risk of waterborne diseases. Inadequate sanitation facilities, including toilets and handwashing stations, pose significant challenges. Displaced populations living in crowded conditions lack access to proper WaSH facilities. *Immediate measures are necessary to address the WaSH challenges. Providing clean drinking water through water treatment and distribution systems is crucial. Restoring damaged water supply and sanitation infrastructure is a priority. The construction of temporary latrines and handwashing facilities is essential to ensure proper sanitation.*

Protection: The Protection Sector analysis reveals critical protection issues, including security concerns due to damaged shelters, limited access to security mechanisms, family separations, power outages, privacy challenges, inadequate bathing/toilet facilities, limited access to menstrual hygiene products, and exclusion of SC/ST and PwD communities from relief camp services. *Urgent actions are required to ensure the protection of affected individuals. Establish safe spaces and shelters for vulnerable individuals, especially women and children, along with strengthened community-based protection mechanisms to provide support and assistance.*

2. BACKGROUND

2.1 Situation Overview

The development of Cyclone Michaung, the fifth cyclone to manifest in the Indian Ocean this year and the fourth to originate in the Bay of Bengal, has precipitated a series of impactful events in the southern regions of India. The India Meteorological Department initially forecasted the development of Cyclone Michaung in the Southwest Bay of Bengal on Sunday, December 3, with a projected landfall along the coast of Andhra Pradesh by December 5.

The cyclone's impact became evident on the night of December 3 and December 4 when heavy rains hit the coast of Tamil Nadu, leading to extensive flooding in various areas of Chennai. The cyclonic storm made landfall in the afternoon on December 5 in Bapatla between Nellore and Machilipatnam in Andhra Pradesh.

Furthermore, the south coast of Andhra Pradesh, encompassing areas near Prakasham, Bapatla, Machilipatnam, Patnam, and East West Godavari, is poised to face heightened risks of flooding due to anticipated heavy downpours. This complex and dire situation underscores the pressing need for coordinated and expeditious response measures to mitigate the impact and ensure the safety and well-being of the affected populace. According to data shared by the Andhra Pradesh Chief Minister's Office (CMO) on media, nearly 40 lakh people from 194 villages and two towns were affected by Michaung's impact, including the inundation of 25 villages. The storm damaged 770-kilometre roads, uprooted 35 trees and killed three livestock.



FIGURE 1: CYCLONE FACILITY MAP_05-12-23, SOURCE: NEDM



FIGURE 1: SITUATION IN CYCLONE AFFECTED AREAS

2.2 Relief Measures GO & NGO

The Government and Non-Government actors have initiated their relief efforts. Along with active coordination among like-minded civil society organizations over social media, GO-NGO coordination has also been established. Sphere India, a national coalition of humanitarian agencies which coordinates the humanitarian organizations in the country has been releasing regular sitreps and activated the Unified Response Strategy, the mechanism with SOP for inter-agency coordination during such emergencies.

2.2.1. Government Response

- Prime Minister instructed the release of the central share of the second installment of State Disaster Response Force (SDRF) for Andhra Pradesh (Rs 493.60 crore), with the first installment already released.
- Ten teams of the National Disaster Response Force (NDRF) have been deployed in Andhra Pradesh.
- Adverse weather conditions have led to the snapping of power lines, uprooting of trees, and the cancellation of over 140 trains and 40 flights in Andhra Pradesh.
- Special officers appointed in Andhra Pradesh for all cyclone-affected districts, with Rs 2 crore each released for rescue and relief efforts, prioritizing safeguarding crops and compensating damaged houses.
- Government decision to build a high-level bridge across River Swarnamukhi at a cost of Rs 30 crore, with Rs 32 crore sanctioned for repairing 110 tanks damaged due to the cyclone.
- For the affected districts, the state government has allocated total of Rs 23 crore for relief efforts.
- On Tuesday, six State Disaster Response Force teams and an equal number of National Disaster Response Force teams were deployed. With the receding rainwater, the state government has decided to assess agriculture and horticulture damage.
- To support people returning home from relief camps, the Chief Minister of Andhra Pradesh has announced financial aid—Rs 1,000 for individuals and Rs 2,500 for families, along with other essential items. Houses damaged in the cyclone will be compensated with Rs 10,000 each.

2.2.2 Humanitarian Response

- UNICEF India, Caritas India, WVI, ActionAid, Seeds India, Aum Education Seva Trust, Society For Integrated Rural Development (SFIRD) and Society for National Integration through Rural Development are monitoring the situation.
- Goonj, Dream India Cyclone Relief Team, and Dreamz Foundation Trust have appealed for assistance, while Hero Insurance Broking assures swift help for vehicle damage during turbulent weather.
- IAG AP, SFIRD, SNIRD, CJWS, CADME, AALPE-NGO, Navajeevan Organisation and several others are proactively supporting the affected communities in AP.

- Sphere India, with the support of responding agencies and state IAGs, has initiated a joint rapid need assessment as per the guidance of the IAC committee. Assessment Timelines: http://tiny.cc/Cyclone-Michaung_JRNA.
- Agencies already responding or planning to respond are updating their information in the Sphere India URS matrix for mapping of who is doing what and where. The link to the matrix is http://tiny.cc/URSMatrix_CycloneMichaung

2.3 Humanitarian Coordination

Three essential meetings were conducted in response to the aftermath of the cyclone that affected Tamil Nadu and Andhra Pradesh.

Firstly, Sphere India initiated an Inter-Agency Committee (IAC) meeting to assess the current situation, gather updates from responding organizations, and plan the forward course of action. [\(Minutes of Meeting\)](#)

In addition to the IAC meeting, a preparedness meeting was convened as part of the response efforts to Cyclone Michaung. This gathering aimed to evaluate the existing situation, foster collaboration among stakeholders and humanitarian agencies, discuss ongoing preparedness activities, gather insights into potential impacts, and explore collective strategies to address challenges in the aftermath of the cyclone. [\(MoM\)](#)

Furthermore, in the ongoing efforts to coordinate the Cyclone Michaung Response in Tamil Nadu, Sphere India, in collaboration with HCL Foundation and other partners, facilitated an Emergency Coordination Meeting. This meeting brought together various non-governmental actors from across Tamil Nadu at the Arumbakkam Police Boys & Girls Club in Chennai and through Zoom. [\(MoM\)](#)

3. OVERVIEW OF JOINT RAPID NEEDS ASSESSMENT REPORT

3.1 Timeframe

In close coordination with the State Inter-Agency Group in Andhra Pradesh and other responding agencies, Sphere India has been actively monitoring the situation since the 3rd of December 2023. Three Situation Reports have also been released during this period. In light of the challenging circumstances, Sphere India facilitated two meetings with State Inter-Agency Groups and local responding agencies. Furthermore, an emergency Inter-Agency Committee (IAC) meeting was convened on the 5th of December 2023, with representatives from the Inter-Agency Group in Andhra Pradesh and other responding agencies. During this meeting, the IAC committee made the decision to activate the Unified Response Strategy (URS) and initiate the Joint Needs Assessment (JRNA) Process.

TABLE 1: TIME FRAME OF JRNA

Proposed Plan for Joint Rapid Needs Assessment in Andhra Pradesh - Cyclone Michaung 2023		
Sl. No.	Activity	Timeline

1	Inviting Interest from Members for nomination of staff and volunteers for participation in data collection and Report writing	05-Dec-23
2	Finalization of roster of data collection and WhatsApp group of all Volunteers and agencies	06-Dec-23
3	Contextualization of Existing Tools	
4	Finalization of sample size, area of coverage	
5	Orientation to Volunteers on data collection and safety protocols	
6	Dissemination of Secondary Data Analysis Report	
7	Release of Expression of Solidarity	07-Dec-23
8	Finalisation of roster of Report Writing Team and WhatsApp Group of the Team	
9	Data Collection and uploading from the Field by the volunteers	
10	Data cleaning and compilation by Sphere India	07-12-2023 - 10-12-2023
11	Data Analysis to be shared with Report writing team	11-Dec-23
12	First draft of the report to be shared with Sector Committees	11-Dec-23
13	Inputs by experts and finalisation of report by experts	11-Dec-23
14	Consolidation and Final report Dissemination	12-Dec-23
15	Multistakeholder meeting to present the findings	15-Dec-23

3.2 Methodology:

Based on the emergency situation, the Inter agency Coordination committee coordinated with responding NGO partners working in the affected districts of Andhra Pradesh. A JRNA was conducted to identify the urgent, mid-term and long-term needs of affected community for the essential sectors of Food & Nutrition Security (FNS), Health, Water Sanitation and Hygiene (WaSH), Education, Shelter, Livelihood, and Protection. This would help flag the vulnerability of affected community to access basic services and entitlements in Bapatla and Nellore districts of Andhra Pradesh.

The JRNA is the result of joint efforts from member organizations and the state IAG facilitated by Sphere India and with field support from local NGOs, Government led institutions, and line departments to provide the required data and information.

58 volunteers were oriented to carry out data collection using household, camp incharge, and camp inmates tools in these affected districts. The collected data got analyzed by the Sphere India team, and the draft report was reviewed by the respective sectoral experts. The reviewed and revised report also incorporates the inputs and insights shared by the Sectoral Committee Leads.

During JRNA, urgent needs of affected communities have been identified through direct data collection from the field, damage assessment reports prepared by the government, pre-disaster information from respective line departments, and secondary data from various sources, media reports and discussions with grassroot functionaries. Data was collected

according to the listed indicators available on the specific tools/questionnaires deployed during the interviews/ discussions. The methodology was based on:

- a) Structured one-to-one interviews with affected households (ensuring prioritizing of random households from most affected villages giving equal representation to all sections of the local community).
- b) Secondary data from various media sources with observation and fact checking.

3.3 Rationale behind the Sampling for Assessment

The sample size was determined based on secondary data information available from government reports and media sources. Affected areas were chosen from different districts of Andhra Pradesh. The areas were selected based on the impact data, vulnerability, heavy rainfall and in consultation with the local NGOs aware of local situations and event impact. The households for the survey were selected to ensure the participation and response from vulnerable groups like migrants, elderly people, PwDs, children and marginalized communities living in low-lying areas, near drainage areas, slums, etc.

3.4 Primary Data Collection

The primary data collection process included household surveys and key informant interviews at the affected areas to cover households and local administration. The questions were designed to grasp the needs and challenges in the sectors of FNS, Shelter, Protection, Health, Livelihood, Education, and WaSH. Household level questionnaires designed by national experts, and suggestions from local humanitarian actors were filled through the KoBo Collect Tool. To keep the assessment neutral, unbiased, and reflective of the ground reality, local volunteers were engaged, physically visiting, and recording responses from the affected population.

TABLE 2: RESPONDENTS DATA

District	Respondents	Male	Female
BAPATLA	68	24	44
NELLORE	56	23	33

Of all the affected villages and households, 2 districts and 124 households were taken as a sample for most affected community and have been assessed and documented based on the instruments/tools/questionnaires.

Quantitative Data Analysis

Once data was collected, Sphere India team carried out data cleaning and analysis using Microsoft Excel. The key findings were analyzed and highlighted in the form of graphs and charts to provide a better understanding of the emerging trends to the readers.

4. SECTORAL ASSESSMENT & RECOMMENDATIONS

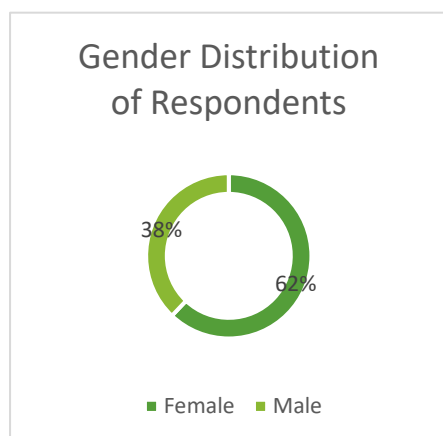
4.1 RESPONDENTS PROFILE

This JRNA presents a comprehensive analysis of the survey data collected from respondents in Bapatla and Nellore districts of Andhra Pradesh. The survey includes a total of 124 respondents, with Bapatla having the highest number of participants at 68, closely followed by Nellore at 56 respondents. The distribution across these districts ensures a diverse range of perspectives from different geographical areas.

TABLE 3: RESPONDENT'S DISTRIBUTION IN DISTRICTS

District	Respondents
BAPATLA	68
NELLORE	56
TOTAL	124

The survey data shed light on the gender distribution among the respondents. Out of the total participants, 62% (77 individuals) identified as female, while the remaining 38% (47 individuals) identified as male.



The survey revealed that the majority of respondents, accounting for 93% of the total, fell within the 18-60 age range. This group represents individuals in their working-age, making their opinions highly relevant for decision-making processes concerning employment, education, and societal development. Their inclusion in the survey allowed capturing their preferences, needs, and experiences, enabling policymakers to address their specific requirements effectively.

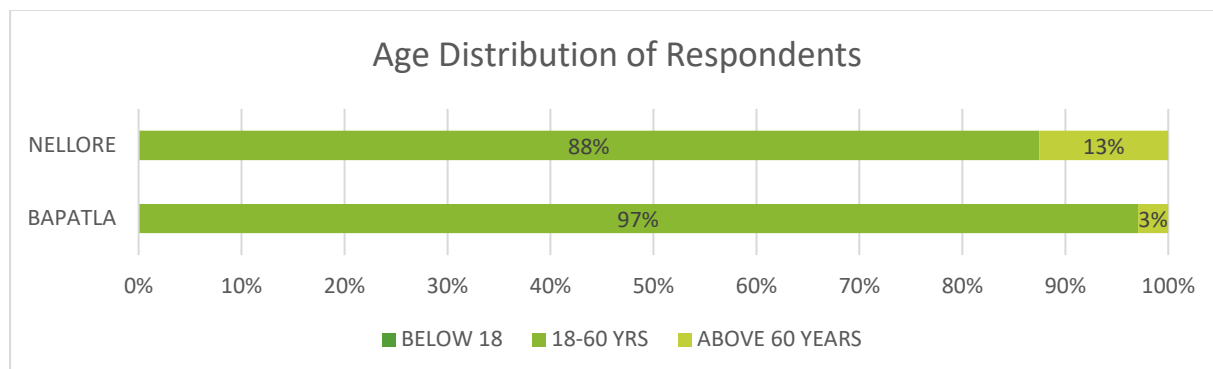
GRAPH 1: GENDER OF RESPONDENTS

Age Group	Percentage
Below 18	0%
18-60	92.7%
Above 60 Years	7.2%

TABLE 4: AGE OF RESPONDENTS

Additionally, respondents over the age of 60 constituted 7% of the total, forming a smaller but critical segment of the surveyed population. Despite their lower representation, their insights are essential in understanding the unique perspectives and requirements of this demographic. The experiences of elderly population can provide valuable guidance for policy formulation in crucial areas such as healthcare, and social support. Including their perspectives ensures that

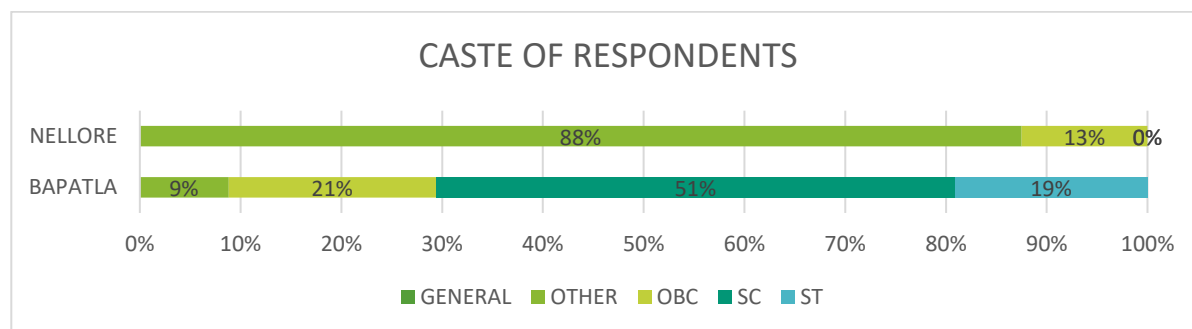
policies and programs are designed to cater to the needs of this age group, acknowledging their contribution to society and addressing their specific challenges effectively.



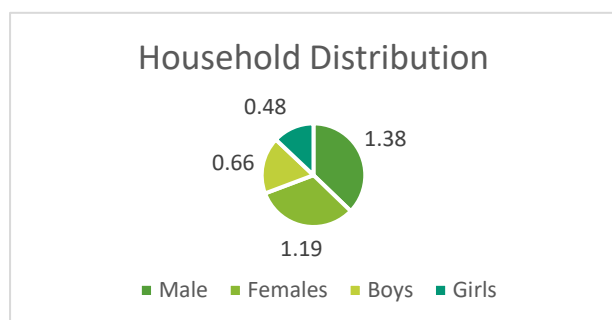
GRAPH 2: AGE OF RESPONDENTS

By encompassing a diverse range of age groups, the survey ensures a comprehensive understanding of the diverse viewpoints of the population and needs across different generations. This holistic approach to data collection and analysis allows for the formulation of well-informed recommendations and decisions that encompass the requirements of individuals in their working-age as well as those above the age of 60.

The respondents belong a diverse range of socio-economic backgrounds. A major share of Scheduled Castes (SC) respondents were from Bapatla (51%). Nellore had the highest share of Other respondents at 88% followed by Bapatla at (9%). The highest representation of OBC population was in Bapatla (21%) followed by Nellore at 13%. Scheduled Tribes (ST) were also represented in Bapatla (19%).



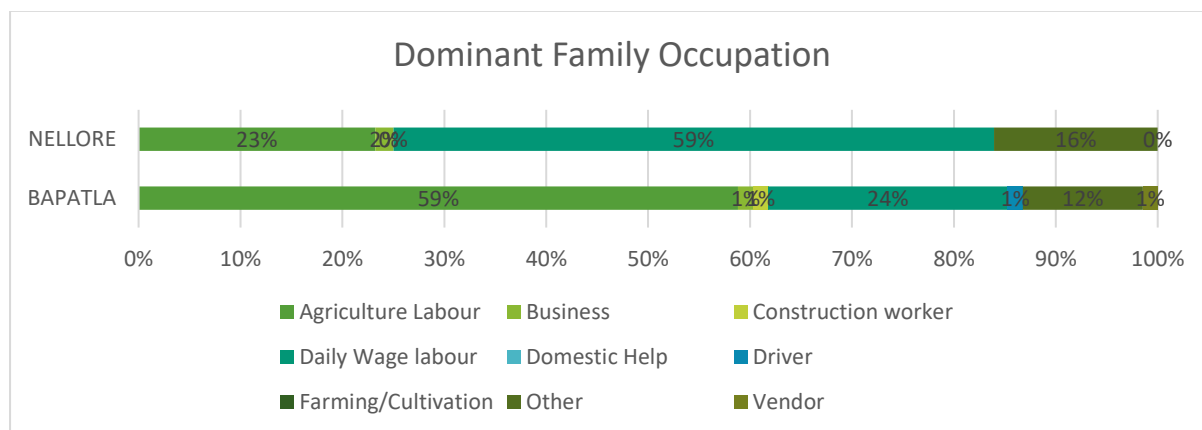
GRAPH 3: CASTE OF RESPONDENTS



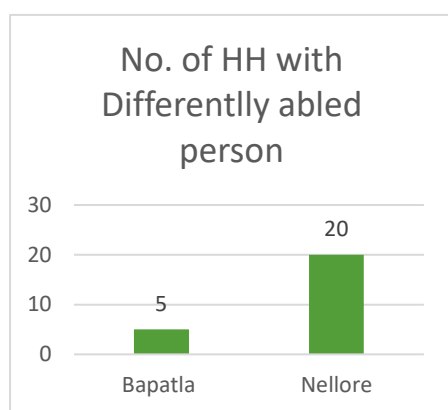
GRAPH 4: HOUSEHOLD DISTRIBUTION

The average household size in Andhra Pradesh is 3.75 persons per household. The average number of males per household is 1.38 followed by number of females (1.19), number of boys (0.66) and girls (0.48).

The dominant family occupation in majority of the households is Daily Wage Labour within the affected districts of Nellore (59%) and Bapatla (24%). This is followed by Agricultural Labour in Bapatla (59%), Nellore (23%). Some of the households also belonged to Vendors in Bapatla (1%). Other occupations include as Domestic Help, Drivers, Business, Construction workers, etc.



GRAPH 5: DOMINANT FAMILY OCCUPATION



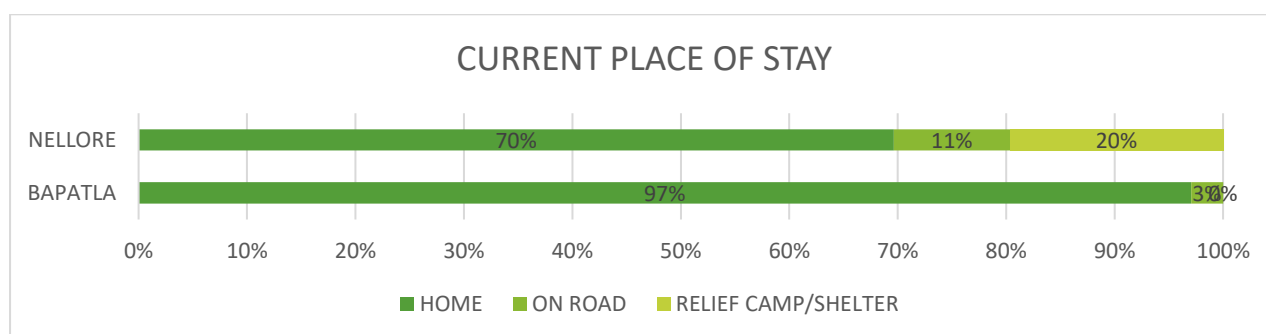
GRAPH 6: HOUSEHOLD WITH PWD

Many of the surveyed households had People with Disabilities (PwD). A majority of the households with PwDs reported from both Nellore (20) and Bapatla (05).

The type of disabilities included visual impairment, physical disability, hearing impairment, mental disability, speech impairment, intellectual learning disabilities and others.

With respect to the current place of stay of the respondents, majority of the respondents in Bapatla (97%) and Nellore (70%) stated that they reside in their homes.

In Nellore, 20% of the respondents are staying in relief camps. Eleven percent of the respondents in Nellore were staying on the roads as well as 3% in Bapatla. Addressing their immediate safe and secure shelter needs is significant for quick recovery.



GRAPH 7: CURRENT PLACE OF STAY

4.2 FOOD SECURITY AND LIVELIHOODS

Overview

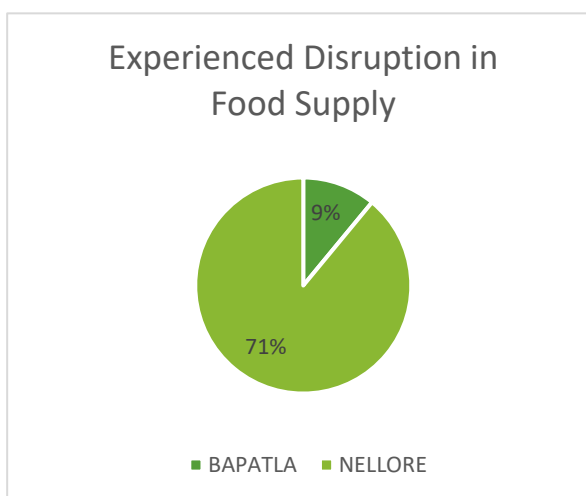
The assessment provides an overview of the food security and livelihood conditions of people living in the districts affected by the cyclone, highlighting the impact of the disaster on their nutrition and livelihood needs. It assesses the extent of damage caused by the cyclone, identifies the immediate FNS and Livelihood requirements of the affected population, accessibility to food and nutrition at current places of stay, and proposes necessary interventions to address these needs.

During the assessment of the cyclone's impact, the situation analysis highlighted insufficient food and nutrition availability in the affected districts, characterized by inadequate food supply, limited cooking facilities, disrupted market access, financial constraints, and loss of crucial documents. The most pressing concern identified on livelihoods was the impact on daily labor work, affecting a significant majority of the population and highlighting their vulnerability. Overall, the situation analysis depicted that the affected districts are facing extensive challenges in sustaining their livelihoods, due to disrupted source of income, emphasizing the need for immediate attention, support, and focused efforts to facilitate recovery and build resilience in the affected districts.

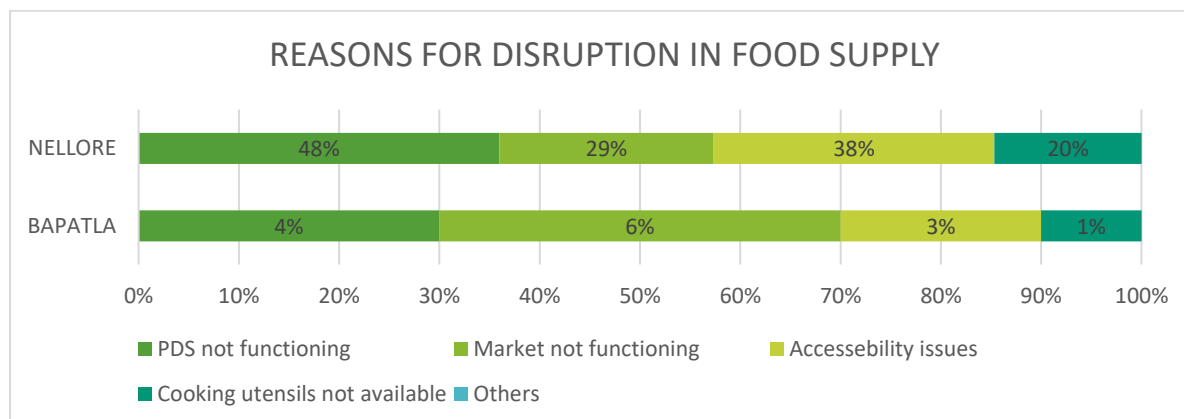
Assessment Findings

While analysing the disruption in food supply across the affected districts of Andhra Pradesh due to Cyclone Michaung, it was observed that Bapatla in Andhra Pradesh experienced relatively minor disruptions in food supply while Nellore faced significantly severe disruptions. 71% of the respondents in Nellore district of Andhra Pradesh faced disruptions in food supplies.

While understanding the reasons for disruption in Food Supplies, it was observed that in Nellore district, non-functioning of Public Distribution Systems was the primary reason causing disruption in food supplies, followed by disruptions faced due non- functioning markets, in the aftermath of the cyclone. In Bapatla district, the major reason, as suggested by the respondents was disruptions in food supplies because markets were not functioning. Overall, inaccessibility was suggested as the third major reason causing disruption in food supplies in Bapatla district. While some respondents have suggested that cooking utensils were not available causing significant challenges for the affected families.

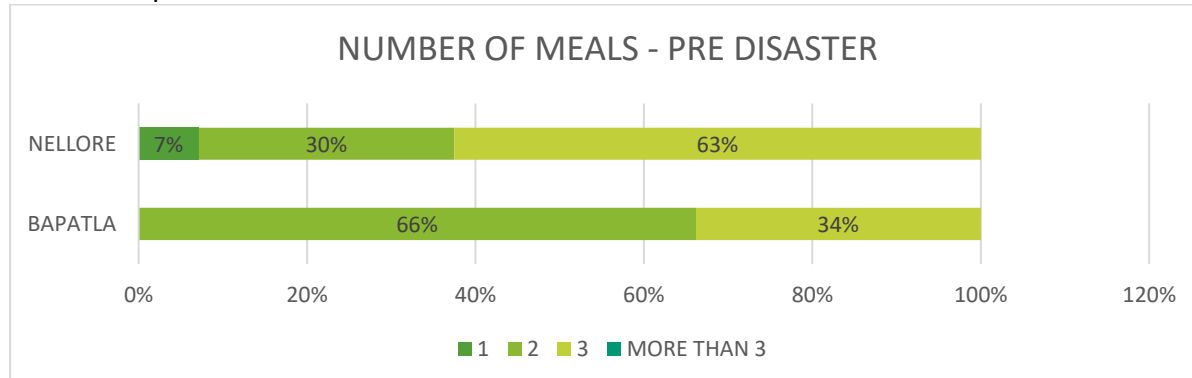


GRAPH 8: EXPERIENCED DISRUPTION IN FOOD SUPPLY



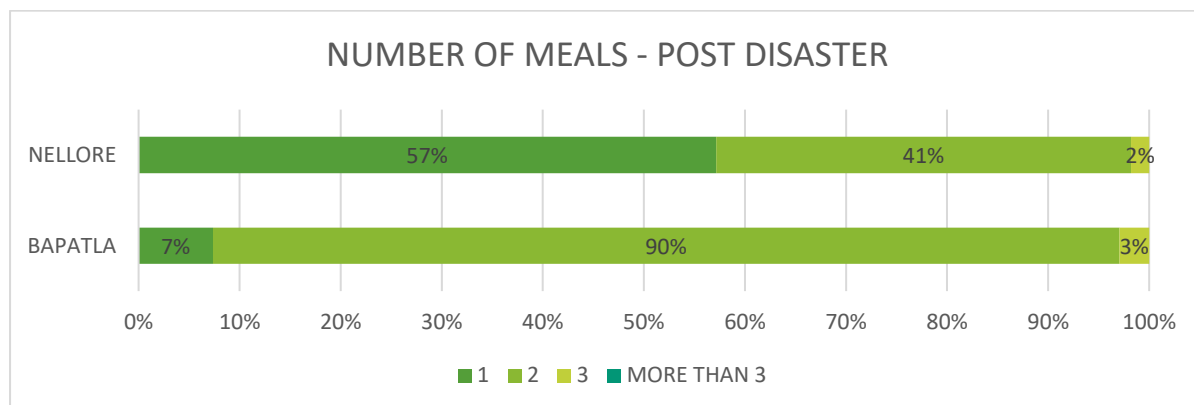
GRAPH 9: REASON FOR DISRUPTION IN FOOD SUPPLY

To understand the impact of the disaster on the consumption rates of the affected population, an analysis was conducted by comparing the daily meal intake before and after the calamity. This assessment aimed to determine the changes in the number of meals consumed per day by the respondents following the disaster. As per the responses received, it was observed that majority respondents from Nellore (63%) were having 3 meals per day on an average, before the cyclone. However, majority respondents (66%) from Bapatla district shared that they were consuming only two meals per day, on average. Approximately 30% of the respondents from Nellore district shared that they were consuming 2 meals per day, and 34% respondents from Bapatla shared that they were consuming 3 meals per day, before the cyclone. None of the respondents from AP shared, they were consuming more than 3 meals in a day, before the disaster impacted the district.

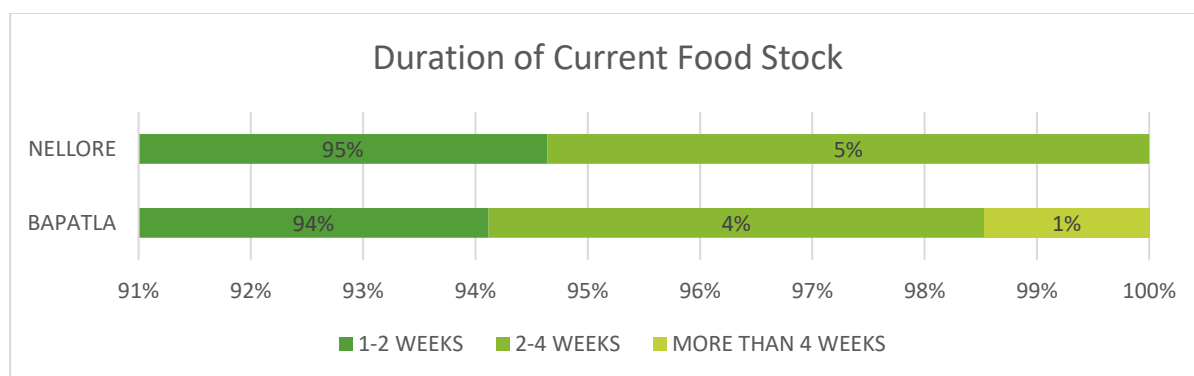


GRAPH 10: NUMBER OF MEALS - PRE DISASTER

Post disaster, significant impact was observed in the daily meal intake. In Nellore, earlier majority respondents were consuming 3 meals per day, after the disaster, majority respondents (57%) were consuming only one meal per day. In Bapatla district, 90% respondents were consuming 2 meals per day, after the disaster, an approximate increase by 24%. Thus, it can be inferred that post disaster per day consumption rates were majorly impacted in Nellore district of Andhra Pradesh, wherein only 2-3% of respondents were able to consume three meals per day.



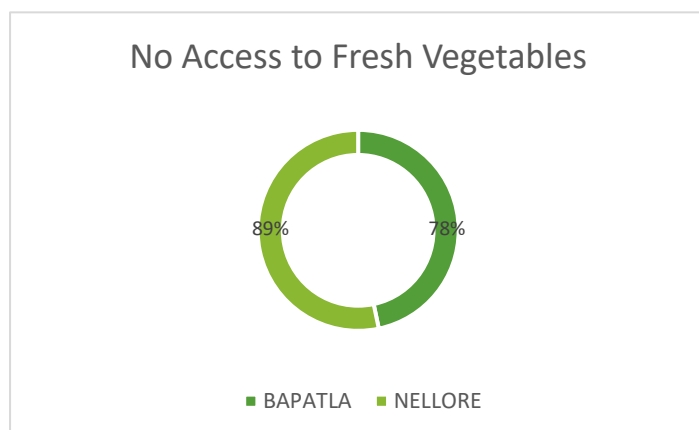
GRAPH 11: NUMBER OF MEALS – POST DISASTER



GRAPH 12: DURATION OF CURRENT FOOD STOCK

Additionally, it was noted that the stock of food items stored by the affected population were impacted by the cyclone. 93% of the respondents from Bapatla (shared that the available Food stock was affected by the cyclone.

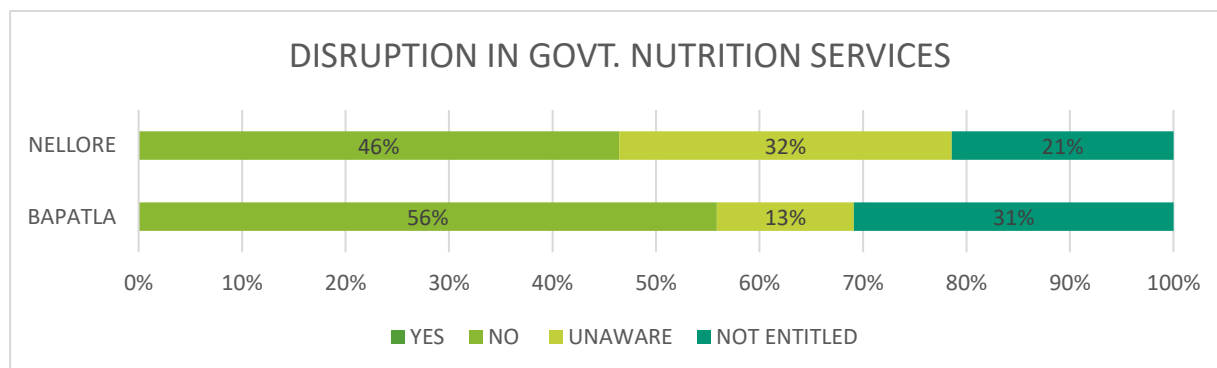
To identify the period for which the current stocks will last, it was observed that, in both the affected districts, over 94% of the respondents shared that the stock will last for up to 1-2 weeks only. Only one percent of the respondents shared that the stocks might last for more than 4 weeks.



GRAPH 13: NO ACCESS TO FRESH VEGETABLES

To understand the accessibility of nutrients through fresh vegetables, it was seen that over 78% of the respondents from both the affected districts of Andhra Pradesh, had no access to fresh vegetable.

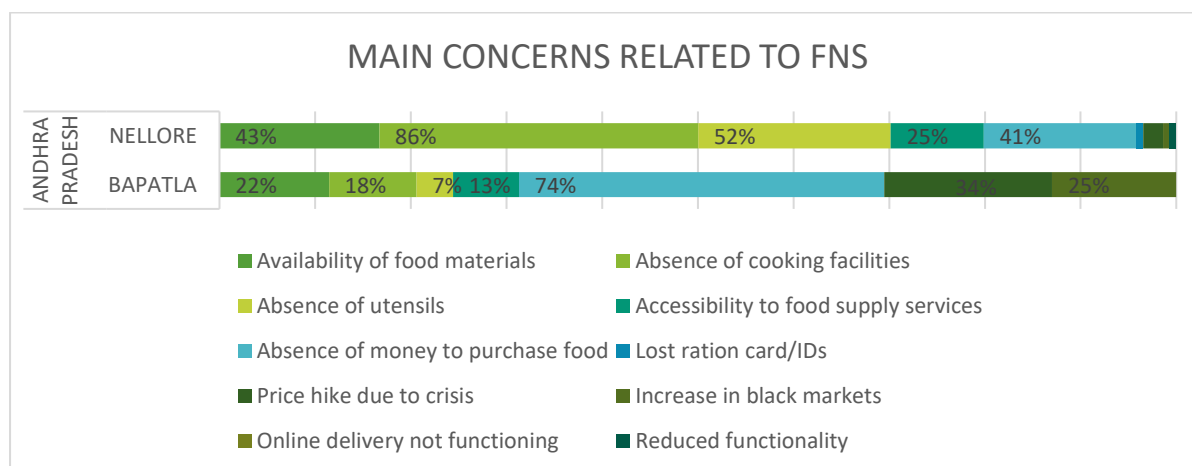
Disruption was also seen in the supply of government nutrition services to children, adolescent girls, pregnant women and lactating mothers. While majority respondents (45-55%) in both the districts shared that they were not facing any disruption in the supply of such nutrients, approximately 20-30% respondents from the two districts of Andhra shared they were not entitled to such services. 32% of respondents from Nellore shared that they were not aware of such services.



GRAPH 14: DISRUPTION IN GOVERNMENT NUTRITION SERVICES

Broadly analysing the primary concerns raised by respondents in the FNS sector, several key issues emerged. These encompassed non-availability of food materials, notably affected due to the cyclone's impact on supply chains. The absence of cooking facilities and utensils compounded the challenges, hindering the preparation of meals even when supplies were accessible. Accessibility to food supply services became a pressing issue, aggravated by disrupted transportation networks. Financial constraints were prevalent, with many lacking the necessary funds to purchase food. Moreover, the loss of ration cards or identification further complicated access to essential food provisions. The crisis also triggered price hikes, fostering black markets and exacerbating the financial strain on affected communities. Online delivery systems faltered, adding to the hurdles in securing food supplies

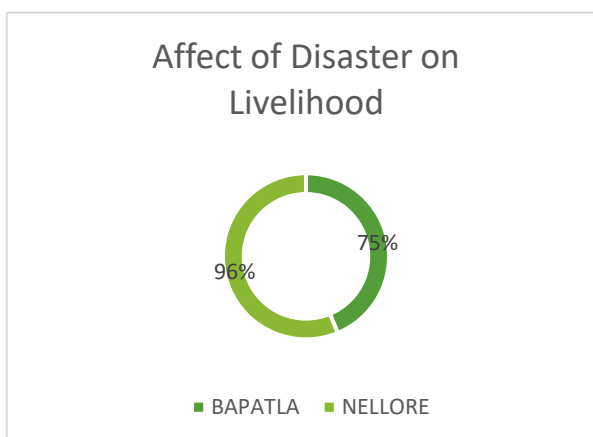
In Nellore, absence of cooking facilities and utensils were cited as major concerns. In Bapatla district, primary concern related to FNS Sector was absence of money to purchase food, followed by price hike and the associated black marketing of food materials.



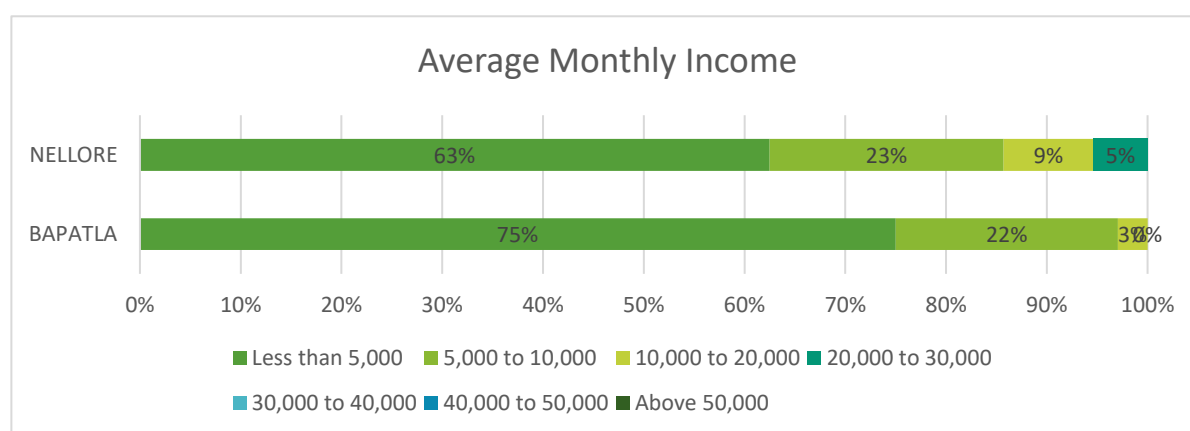
GRAPH 14: MAIN CONCERNS RELATED TO FNS

Livelihood

The cyclone had a significant impact on the livelihood of the affected people in the surveyed districts of Andhra Pradesh. 96% of the respondents from Nellore district of Andhra Pradesh stated that their livelihood was affected. 65-75% of the respondents from Bapatla (Andhra Pradesh) shared that their livelihood was affected.



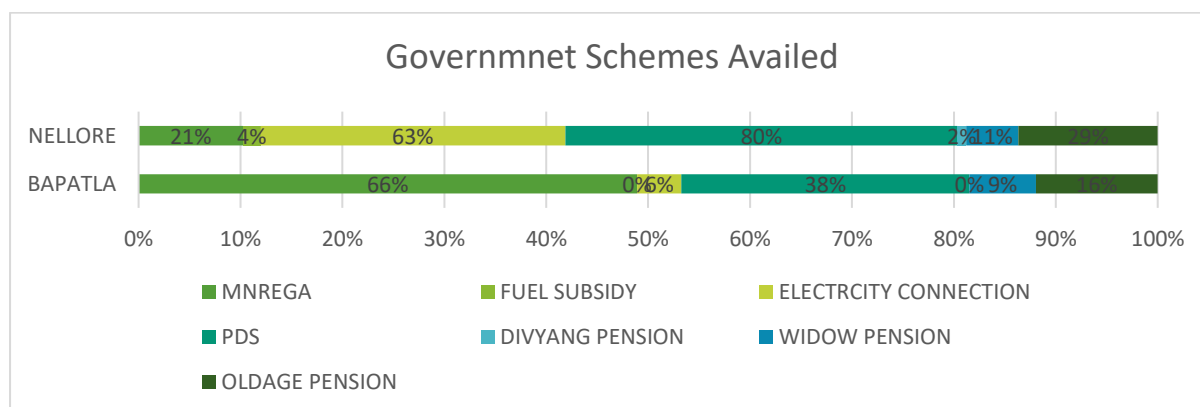
GRAPH 15: AFFECT OF DISASTER ON LIVELIHOOD



GRAPH 16: AVERAGE MONTHLY INCOME

To understand the impact of disaster on the livelihoods of the affected population, the average monthly income of the affected respondents was inquired. It was observed 60-75% of the respondents from Andhra Pradesh were earning less than Rs 5,000 per month. 20-23% of the respondents from Andhra Pradesh were earning between Rs 5,000-Rs 10,000 per month. In Bapatla and Nellore, loss of daily wages/income was the primary concern, followed by the loss in Fishing/Business. Loss of employment was also seen as a significant concern.

In terms of the support received from various sources, in the aftermath of the cyclone, only 9% of the respondents in Nellore shared that they received livelihood support. In terms of availing government schemes related to livelihood, 66% of the respondents in Bapatla district shared that they availed MNREGA, and 38% of the respondents shared that they availed PDS scheme. In Nellore, majority respondents availed PDS scheme followed by availing electricity connections.



GRAPH 17: government schemes aailed

Urgent Needs

- 1. Urgent Food Supply:** Districts that have least food reserves to survive the disaster should be provided with sufficient food supply, and accessibility to adequate and nutritious food to shall be the priority. Emergency food distribution programs can be implemented to ensure that all affected and vulnerable population have adequate food supplies.
- 2. Livelihood Support to Vulnerable Groups:** Of the affected population, persons employed in informal sectors or those working as daily wage labour are the most vulnerable in aftermath of the cyclone and thus require immediate livelihood support. Thus, special attention should be given to the groups without stable income sources.

4.3 WATER SANITATION AND HYGIENE (WASH)

Overview

The assessment provides an overview of the water and sanitation conditions of communities affected by the cyclone, highlighting the impact of the disaster. It assesses the extent of damage caused by the cyclone, identifies the immediate WaSH requirements of the affected population, their access to safe sanitation facilities and proposes necessary interventions to address these needs.

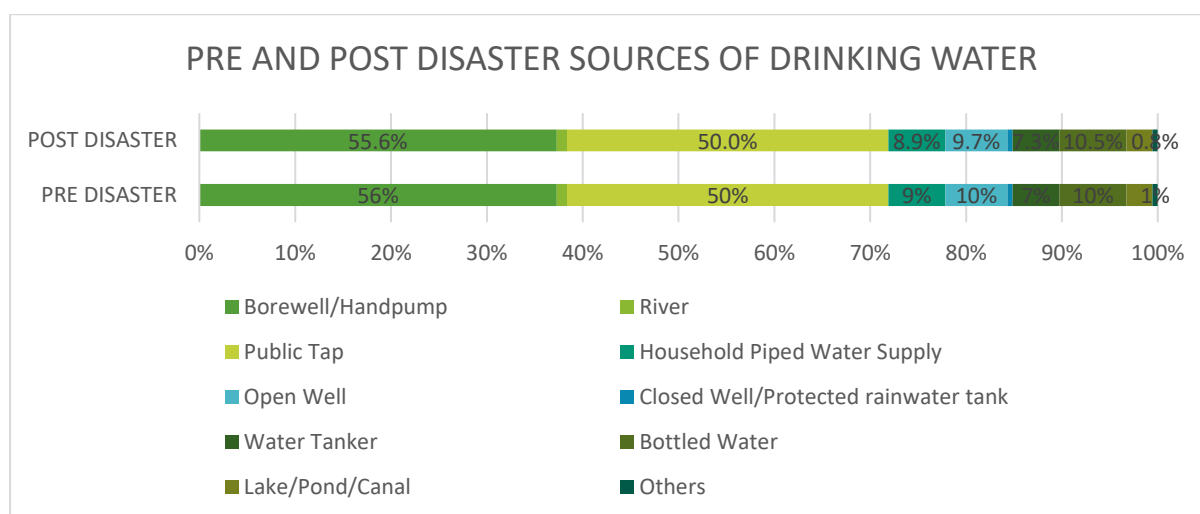
Assessment Findings

In analyzing the pre and post-disaster sources of drinking water in Andhra Pradesh (AP), a notable shift in reliance on various water sources is evident after the disaster. Post-disaster, households in AP predominantly resort to borewells/hand pumps (56%) and public taps (50%), indicating increased dependence on local groundwater and community water supply systems.

Conversely, reliance on household piped water supply (9%) and bottled water (10%) reduces post-disaster, possibly due to infrastructure damage affecting delivery systems.

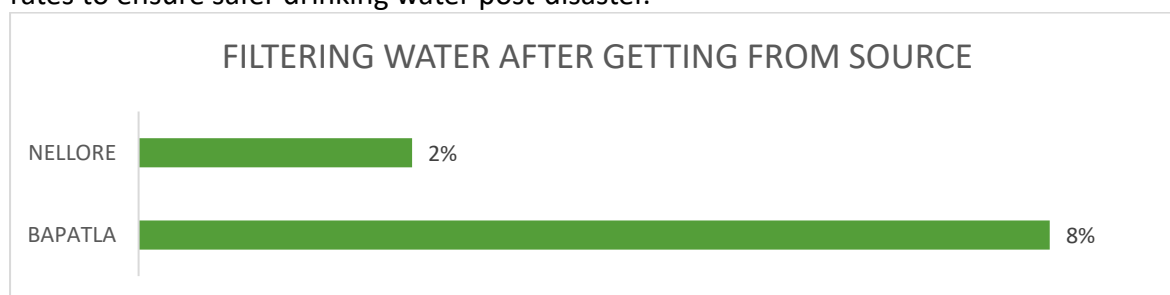
Noteworthy is the emergence of alternative sources post-disaster, like water tankers (7%), highlighting immediate relief efforts. Additionally, the utilization of protected rainwater tanks (1%) becomes more pronounced as a backup source.

Post disaster usage of borewell/handpump in Andhra Pradesh stands at (59%) respectively. The usage of river water (1%) and public tap usage (38%) household piped water supply (4%) open well (9%) and closed well (1%), water tanker usage (28%), bottled water (7%), lake/pond and canal (9%) and others at (0%).



GRAPH 18: PRE- AND POST DISASTER SOURCES OF DRINKING WATER

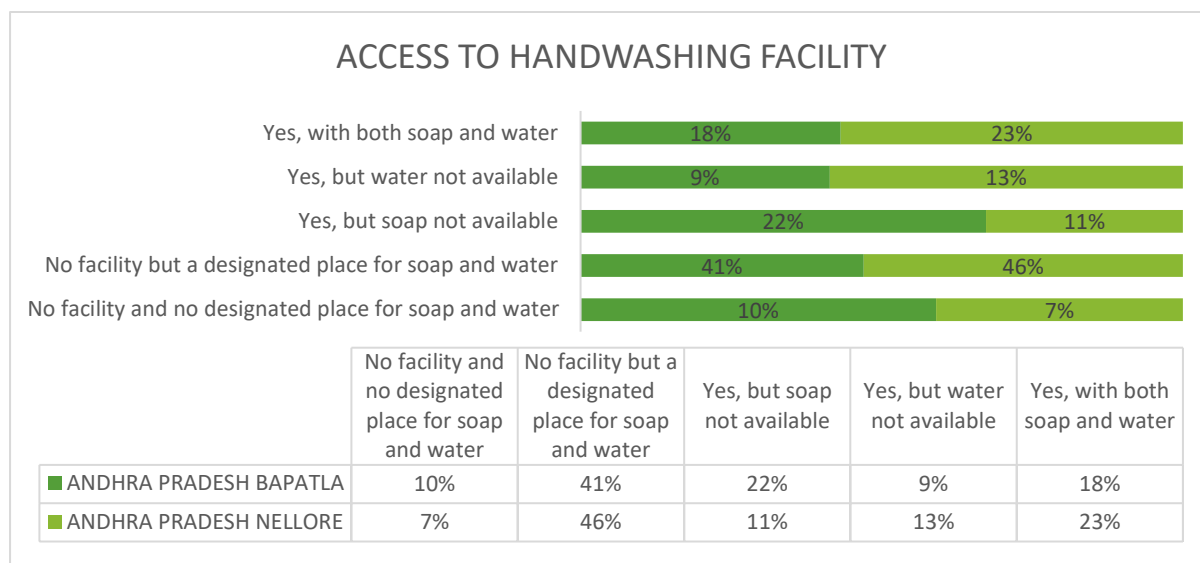
The graph on filtered water consumption post-disaster showcases varying adoption rates across surveyed regions. Bapatla exhibit 8% while Nellore illustrates the lowest usage at 2%. The figures suggest disparities in access to filtered water sources, emphasizing the need for increased access or distribution of filtration systems, especially in areas with lower adoption rates to ensure safer drinking water post-disaster.



GRAPH 19: FILTERING WATER AFTER GETTING FROM THE SOURCE

In Andhra Pradesh, no facility and no designated place for soap and water was responded to by 10% in Bapatla and 7% in Nellore district. In Andhra Pradesh no facility but a designated place for soap and water was reported at 41% (Bapatla) and 46% (Nellore). In addition, as per respondents who mentioned that facility for handwashing was available but without soap, in Andhra Pradesh 22% (Bapatla) and 11% (Nellore) mentioned facility for handwashing being available without any soap. As per respondents, designated facility being there with no

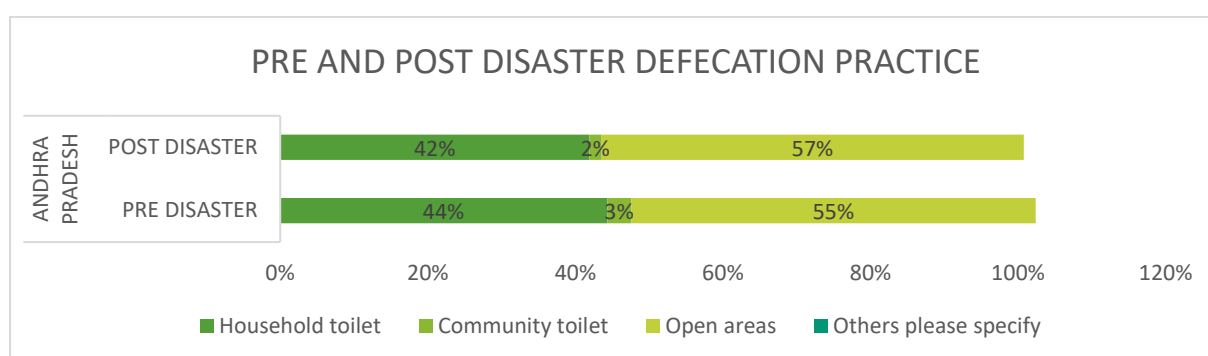
availability of water was reported at 9% (Bapatla) and 13% (Nellore) in Andhra. Lastly, the accessibility to both facility and water for handwashing along with soap was reported by (18%) at Bapatla, (23%) at Nellore and (57%) in Andhra Pradesh.



GRAPH 20: ACCESS TO HANDWASHING FACILITY

Post-disaster, a significant shift in defecation practices is evident in Andhra Pradesh (AP). The reliance on household toilets declines (42%) while open defecation increases (57% AP), indicating infrastructure damage affecting sanitation facilities. Community toilets witness a decrease in AP (2%), possibly due to local infrastructure resilience disparities.

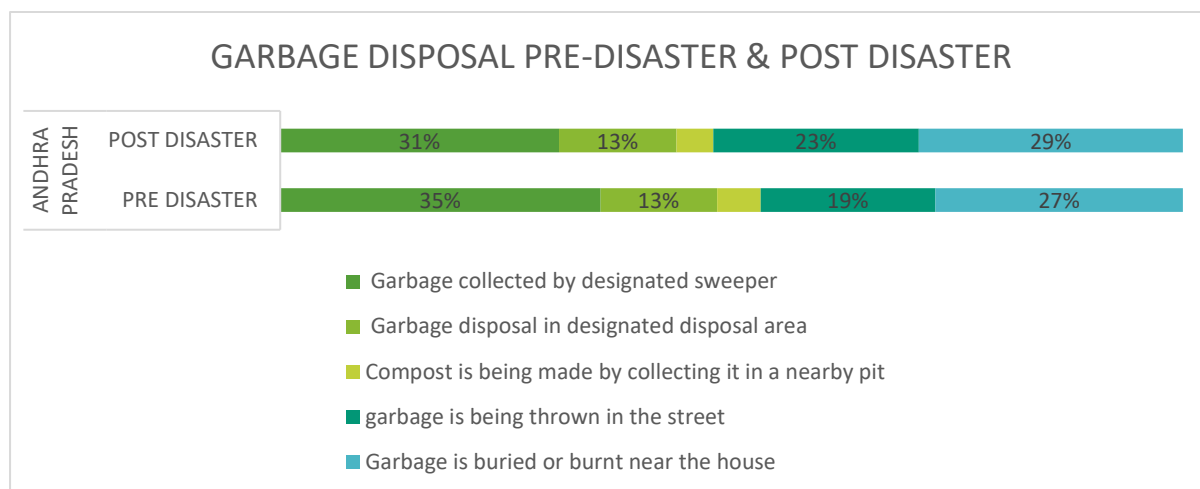
Pre-disaster, primarily relied on household toilets (55% AP), emphasizing established sanitation infrastructure. Community toilets were utilized less, yet the practice was more prevalent in AP (4%). Open defecation was notably higher pre-disaster in AP (68%).



GRAPH 21: PRE AND POST DISASTER DEFECACTION PRACTICE

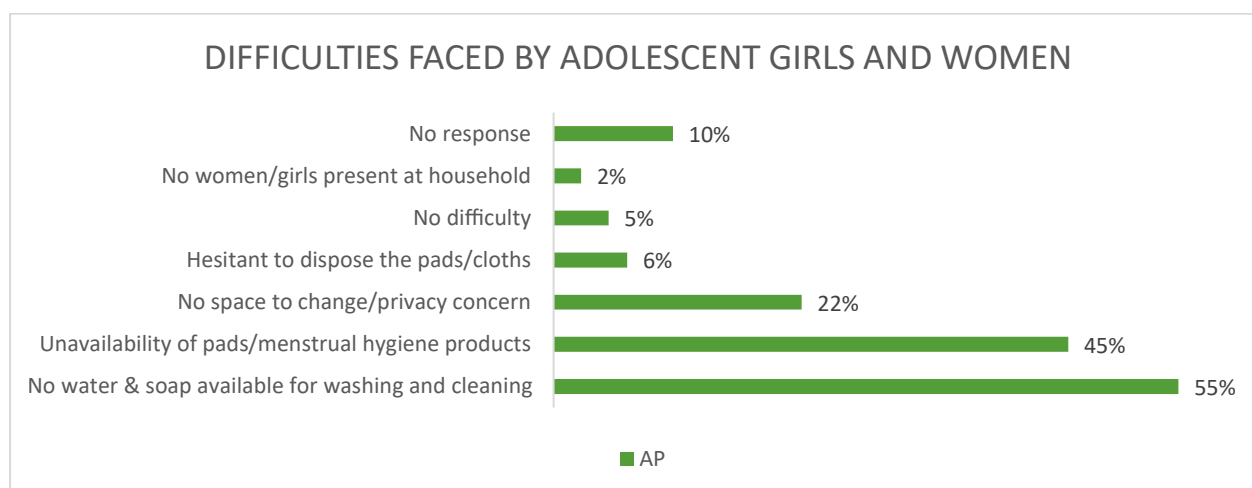
In AP, the post-disaster scenario illustrates a substantial shift in garbage disposal practices. There's a noticeable decrease in designated sweepers' efficiency in post-disaster (AP: 31% to 21%), indicating disrupted waste management systems. Furthermore, a considerable increase in street littering is evident (AP: 23% to 28%), reflecting the breakdown of organized waste collection.

Interestingly, while designated disposal areas remain consistent in, AP experiences a decline (16% to 13%) post-disaster. The practice of burying or burning garbage near homes intensifies in AP (29% post), showcasing a coping mechanism amidst disrupted waste disposal services.



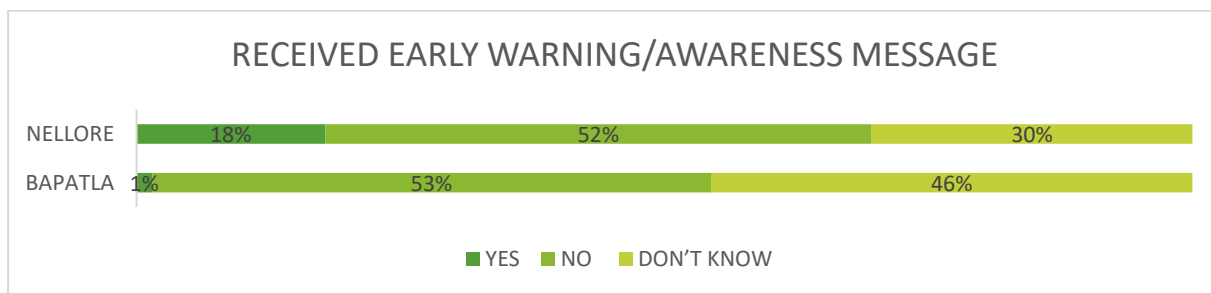
GRAPH 22: GARBAGE DISPOSAL PRE-DISASTER AND POST DISASTER

In AP, 55% face the absence of water and soap for washing, showcasing a substantial disparity. Similarly, 45% in AP struggle due to unavailability of menstrual hygiene products. Privacy concerns and limited changing spaces affect 22% in AP and stands at 5% in reporting difficulties. Interestingly, disposal hesitancy exists at similar rates in states (6% AP). Notably, a minority face the absence of women/girls in the household (2% AP), impacting access to support networks.



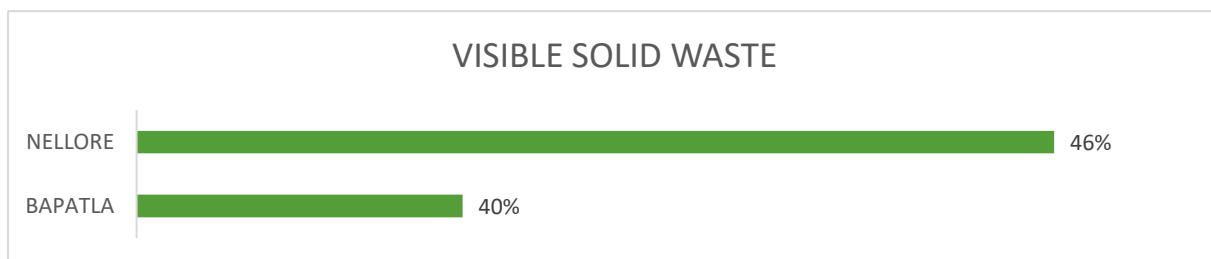
GRAPH 23: DIFFICULTIES FACED BY ADOLESCENT GIRLS AND WOMEN

The figure reflects a concerning lack of early warning awareness among surveyed areas post-disaster. Bapatla (1%), and Nellore (18%) depict significantly lower early warning receipt, signifying inadequate dissemination or accessibility to pre-disaster alerts. Alarming, in Bapatla, the majority were unaware 53%. Urgent attention is needed to enhance early warning systems and ensure effective communication channels, especially in areas like Bapatla.



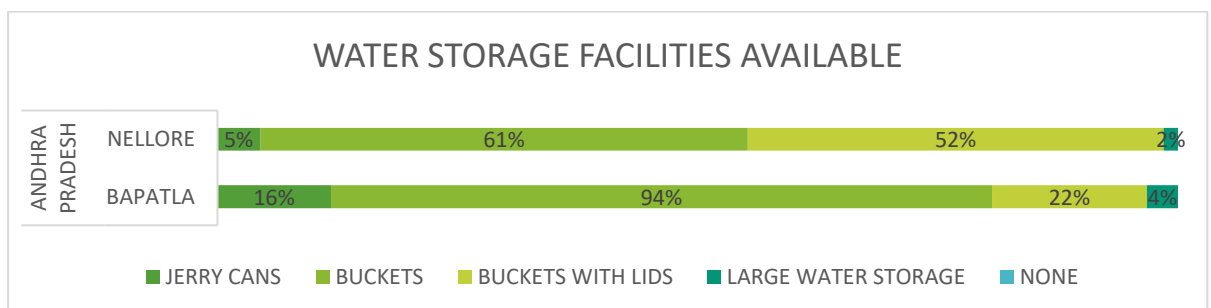
GRAPH 24: RECEIVED EARLY WARNING/AWARENESS MESSAGE

The visible solid waste percentages post-disaster is notable across surveyed districts. Nellore (46%) and Bapatla (40%) display moderate percentages, indicating prevalent waste concerns.



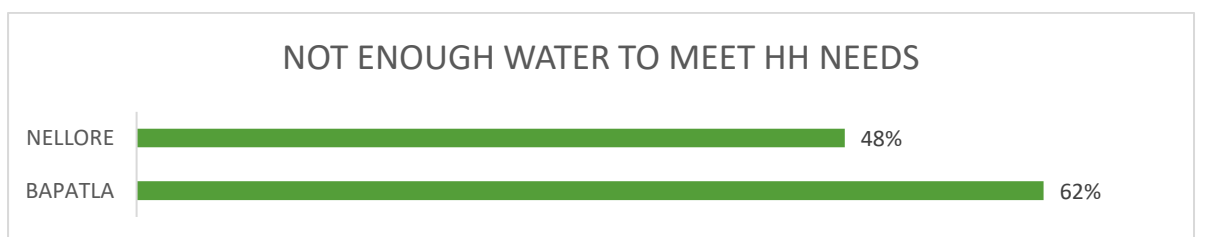
GRAPH 25: VISIBLE SOLID WASTE

In Andhra Pradesh, Nellore district 5% utilize jerry cans, 61%, 52% buckets with lids and 2% large water storage. At Bapatla, 16% utilizing jerry cans for storage, 94% utilizing buckets and 22% using buckets with lids and 4% using large water storage facilities.



GRAPH 26: WATER STORAGE FACILITIES AVAILABLE

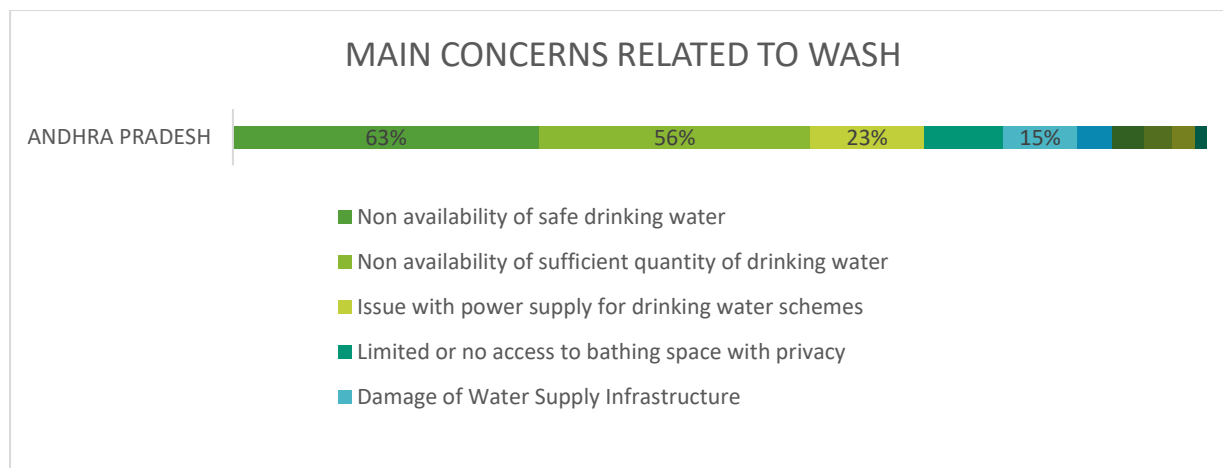
The data reveals a stark water scarcity post-disaster in surveyed regions: Bapatla (62%), Nellore (48%) at the household level.



GRAPH 27: NOT ENOUGH WATER TO MEET HOUSEHOLD NEEDS

In Andhra Pradesh, the non-availability of safe drinking water affects a significant 63%, highlighting a critical issue. Around 56% face insufficient water quantity concerns. Damage to water supply infrastructure is notable in Andhra Pradesh (15%). Privacy in bathing areas is a

concern for 16% in AP. Power supply challenges for drinking water schemes impact around a quarter of respondents in 23% AP. Damage to waste disposal systems is relatively lower but present. Limited handwashing facilities impact 6% in AP, and damaged toilets affect 5% in AP. Access to covered water storage containers is limited, especially in AP (2%).



GRAPH 28: MAIN CONCERNS RELATED TO WASH

Urgent Needs

To address the urgent needs in the WaSH sector, the following actions should be taken:

- Address the needs of stagnant water which could lead to health issues such as dengue etc.
- Linkages to government agencies as part of systems strengthening is another aspect which needs to be supplemented
- Immediate repair and restoration of damaged water supply infrastructure, particularly in areas heavily reliant on borewells/hand pumps and public taps. This includes a focus on reviving household piped water supply systems and ensuring access to safe and sufficient drinking water.
- Increased provision of alternative water sources like water tankers and protected rainwater tanks, especially in regions facing acute shortages, such as Bapatla.
- Address disparities in filtered water access by distributing filtration systems to areas with lower adoption rates (e.g., Nellore), ensuring safer drinking water post-disaster.
- Urgent establishment of handwashing stations with soap and water accessibility, particularly in areas reporting limited or no facilities. Enhanced focus on soap provision and water availability to promote proper hygiene practices.
- Reinforcement of waste disposal systems, including designated disposal areas and organized waste collection services.
- Targeted support for adolescent girls and women, ensuring access to menstrual hygiene products, privacy, and facilities for washing and changing.
- Provision of appropriate storage containers like jerry cans, buckets with lids, and large water storage facilities, addressing the disparities observed across districts to ensure proper water storage post-disaster.

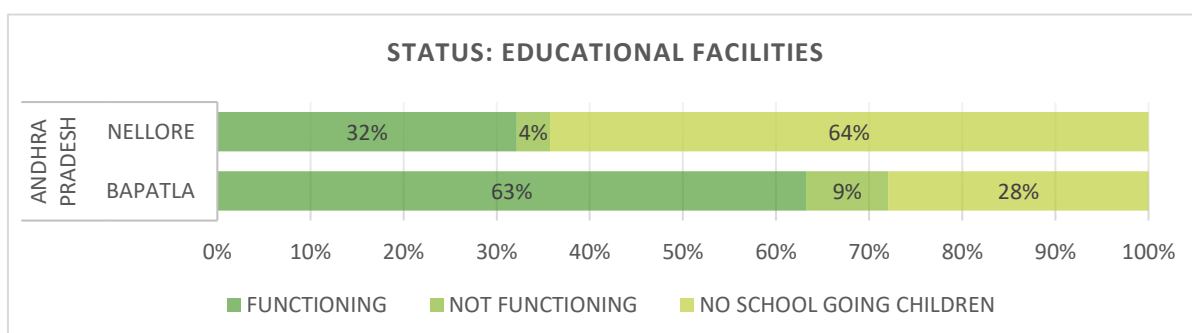
4.4 EDUCATION

Overview

The assessment provides an overview of the education conditions in communities affected by the Michaung cyclone, focusing on the districts of Bapatla and Nellore in Andhra Pradesh. It evaluates the status of educational facilities and educational materials, shedding light on the challenges faced. Additionally, the analysis identifies the types of materials or support needed to address the educational needs arising from the impact of the cyclone in these districts. Particularly, the data analysis provides critical insights into the educational landscape of specific districts, with a focus on Bapatla (68 respondents), Nellore (56 respondents).

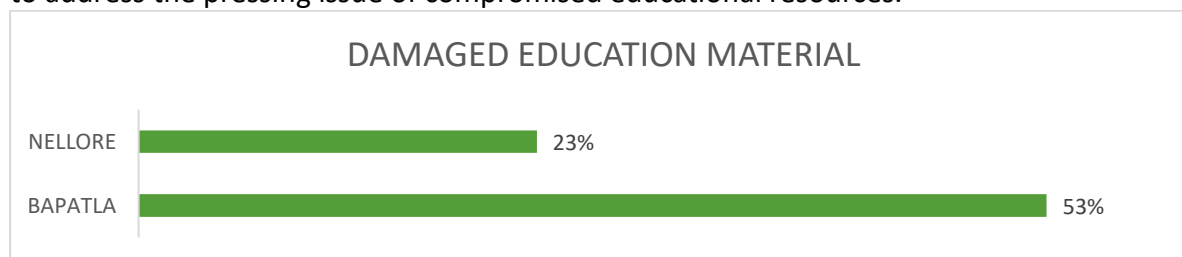
Assessment Findings

In Bapatla district, 63% of the 68 respondents reported that their schools were functioning, while 9% faced issues like power shortages and conversion into relief camps. In Nellore, out of 56 respondents, 32% reported that their schools were operational, with 4% reported nonfunctioning due to power shortages and conversion into relief camps. Out of 124 data points collected in Andhra Pradesh, 44.3% of families did not have any school-going children. The analysis underscores substantial disparities in school functionality across Andhra Pradesh, attributing challenges like power shortages and school conversions to relief camps.



GRAPH 29: STATUS OF EDUCATIONAL FACILITIES

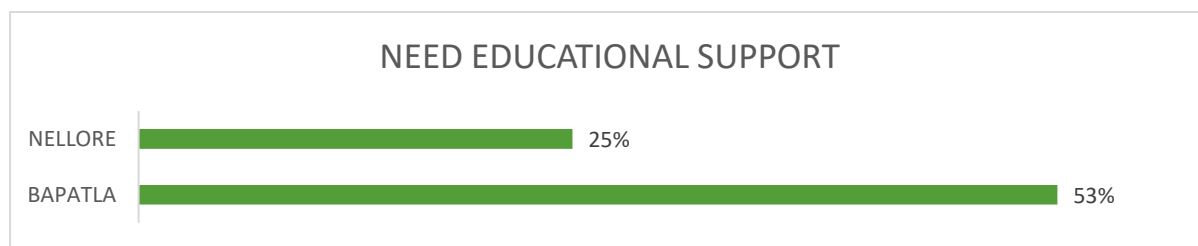
In Bapatla district, 53% of the 49 respondents reported damaged education materials, highlighting a significant issue. In Nellore district, 23% of the 20 respondents also cited damage to educational materials. The data analysis highlights that Bapatla district in Andhra Pradesh emerge as the most affected, with 53% of respondents reporting damaged education materials. These findings underscore the urgency of targeted interventions in these districts to address the pressing issue of compromised educational resources.



GRAPH 30: DAMAGED EDUCATIONAL MATERIALS

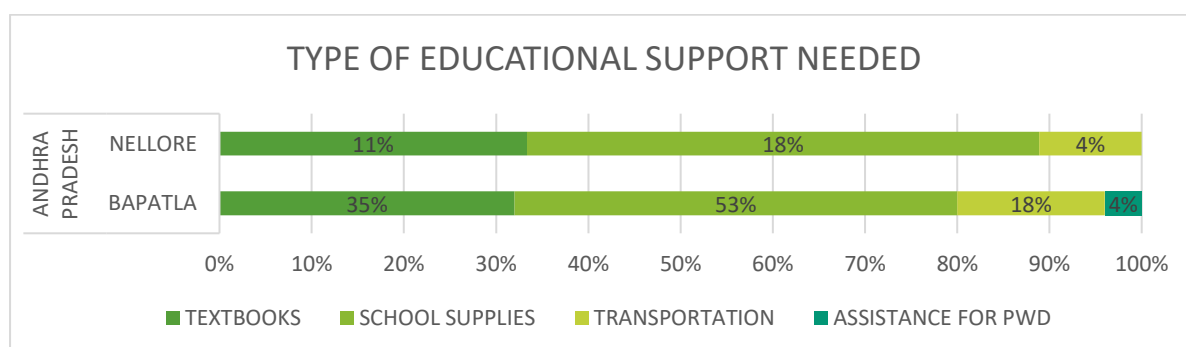
The survey data reveals a notable demand for educational support in Bapatla district where a significant 53% of the 68 respondents indicated a need for educational support, emphasizing a substantial requirement. Additionally, in Nellore, 25% of the 56 respondents expressed a

similar need. These findings underscore the importance of addressing educational support needs, particularly in Bapatla district to enhance the overall educational well-being of the communities.



GRAPH 31: NEED FOR EDUCATIONAL SUPPORT

When questioned about the type of educational support needed, respondents of Bapatla district, 53% of the 68 respondents emphasized the need for school supplies, while 35% mentioned textbooks, 18% expressed a demand for transportation, and 4% sought assistance for persons with disabilities. In Nellore, out of 56 respondents, 18% identified a requirement for school supplies, 11% for textbooks, and 4% for transportation. These findings underscore the diverse educational support needs across districts and emphasize the importance of tailored interventions to address the specific requirements identified in each region. The need for assistance for persons with disabilities in Bapatla should be specially noted.



GRAPH 32: TYPE OF EDUCATIONAL SUPPORT NEEDED

Urgent needs

1. A significant percentage of schools are not fully operational, emphasizing the urgent need to address issues such as power shortages, relief camp conversions, and other factors affecting school functionality.
2. A considerable number of respondents report damaged education materials, indicating an immediate need to address and replenish compromised educational resources.
3. There is a notable demand for educational support and need for assistance. Urgent efforts are required to enhance the overall educational well-being of communities.
4. School supplies and textbooks are identified as crucial needs, emphasizing the urgency of ensuring students have access to necessary learning materials.
5. Specific attention is required for the needs of persons with disabilities, highlighting the importance of inclusive educational support programs.

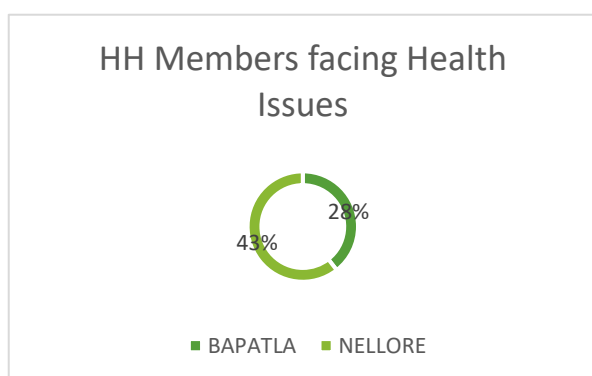
4.5. HEALTH

Overview

The assessment provides an overview of the health conditions of communities affected by the cyclone, highlighting the impact of the disaster. It assesses the extent of damage caused by the cyclone, identifies the immediate health requirements of the affected population, and proposes necessary interventions to address these needs.

Assessment Findings

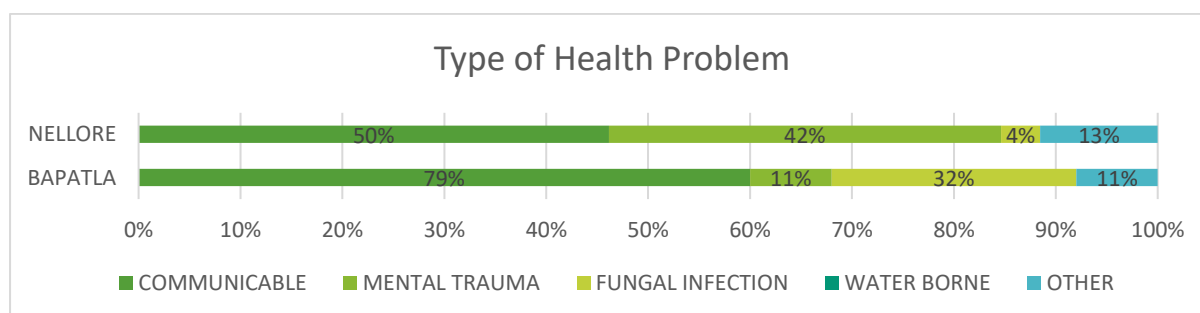
The immediate needs in the affected districts of Andhra Pradesh include emergency medical assistance, including emergency medical teams, medicines, and medical supplies, required to treat communicable diseases like fever and cold and limit the spread of waterborne diseases. The restoration of damaged healthcare facilities and provision of mobile medical units are essential currently. Mental health and psychosocial support services should also be made available to address trauma and stress among affected individuals.



The highest percentage of household members reportedly facing health issues is in Nellore (43%) followed by Bapatla (28%) district.

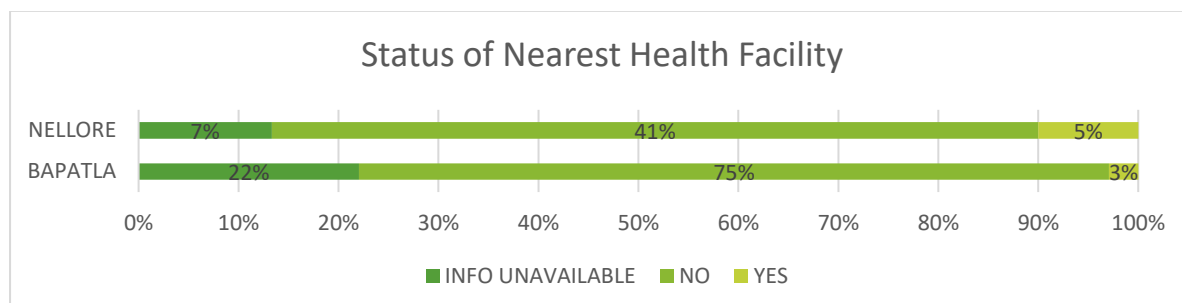
GRAPH 33: HH MEMBER FACING HEALTH ISSUE - DISTRICT LEVEL

Seventy-nine percent of the households surveyed in Bapatla are suffering from communicable diseases following the cyclone. Almost half of the surveyed population in Nellore (50%) are suffering from communicable diseases like cold, flu, and conjunctivitis in the aftermath of Cyclone Michaung. Fungal infections have been reported from the surveyed districts with the highest in Bapatla (32%) followed by Nellore (4%). Water borne diseases have been reported from Nellore (4%). Mental trauma has been reported from all the surveyed districts with the highest in Nellore (42%) followed by Bapatla (11%). Other health problems such as body pain, chicken pox, stomachache, nausea, etc. have also been reported from Bapatla (11%).

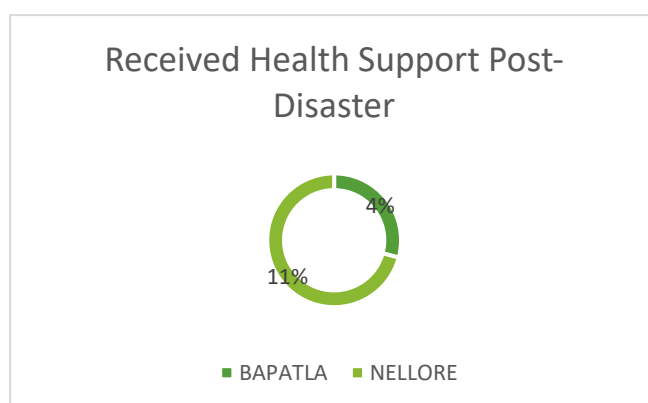


GRAPH 34: TYPE OF HEALTH PROBLEMS REPORTED

In terms of access to the nearest health facility, 75% reported lack of access to nearest health facility in Bapatla. Only five percent of the population reported they were able to access nearest health facilities in Nellore followed by Bapatla (3%). The sufficient information on the nearest health facility was reported unavailable in certain instances for Bapatla (22%) and Nellore (7%).



GRAPH 35: STATUS OF NEAREST HEALTH FACILITY



Eleven percent from Nellore reported that they received health support after the cyclone disaster from various sources. A small percentage from Bapatla (4%) also received health support post cyclone.

GRAPH 36: RECEIVED HEALTH SUPPORT FROM ANYONE POST DISASTER

Urgent Needs

1. The provision of medical assistance and access to health facilities is of utmost importance. The affected population requires healthcare services to address any injuries, chronic health conditions and prevent water-borne diseases. Timely access to medical aid, including medication, medical professionals, and necessary treatments, is crucial for their physical and mental well-being.
2. The traumatic experience endured during the cyclone have taken a toll on the mental health of the respondents, making psychosocial support an essential aspect of humanitarian assistance. Addressing these urgent needs will greatly contribute to the overall recovery and well-being of the affected population.
3. Clean water for drinking and bathing and access to toilets is critical to maintain hygienic conditions and prevent the spread of communicable diseases.
4. Reconstruction and restoration of nearest district health facilities damaged by Cyclone Michaung is essential to serve the long-term health needs of the affected community.

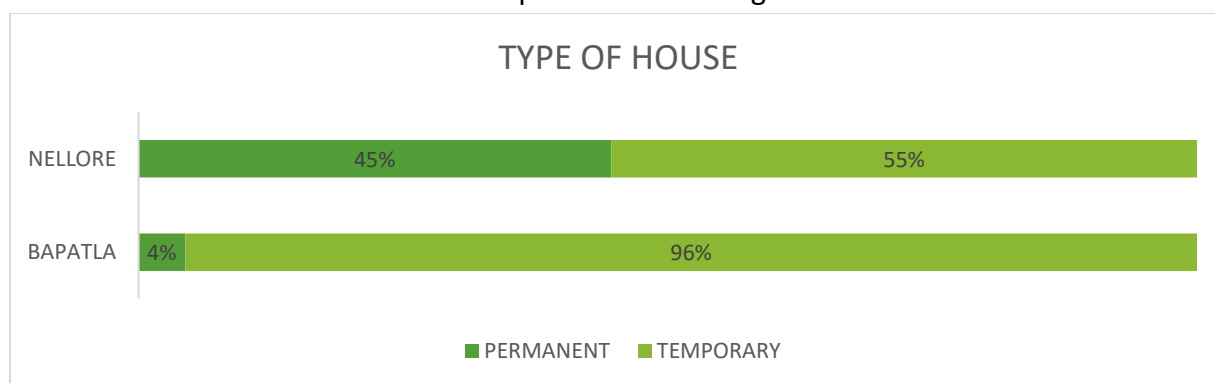
4.6 SHELTER

Overview

The assessment provides an overview of the housing and shelter conditions of communities affected by the cyclone, highlighting the impact of the disaster. It assesses the extent of damage caused by the cyclone, identifies the immediate shelter requirements of the affected population, their current places of stay, and proposes necessary interventions to address these needs.

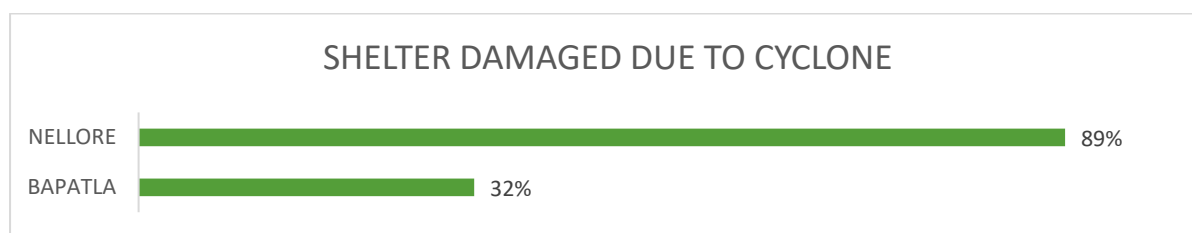
Assessment Findings

Housing Typology: In Bapatla district 96% of respondents reported living in temporary/kutcha house and in Nellore district 55% of respondents are living in kutcha house.



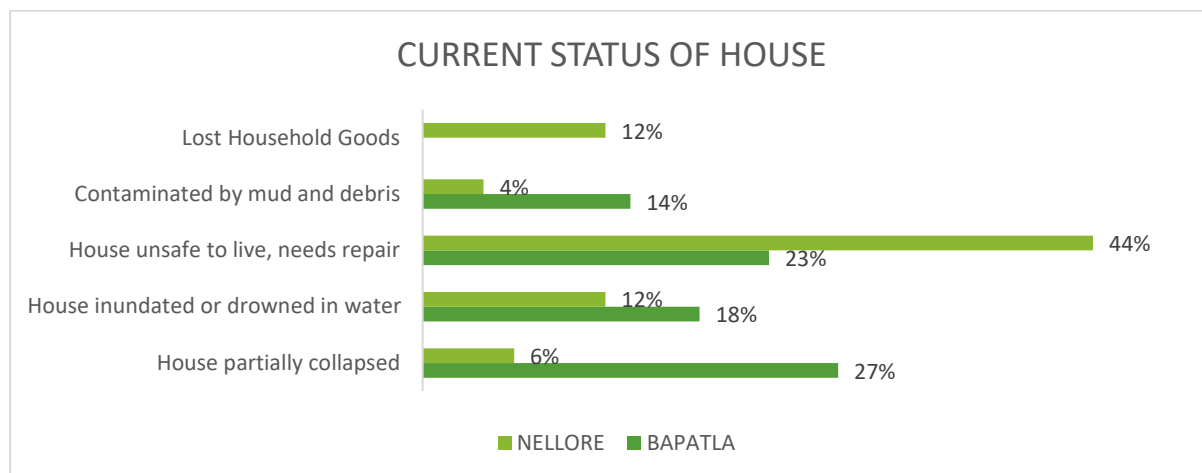
GRAPH 37: TYPE OF HOUSE

Impact on Shelter due to Cyclone: 32% of respondents from Bapatla and 89% of respondents from Nellore reported that their house was damaged due to cyclone.



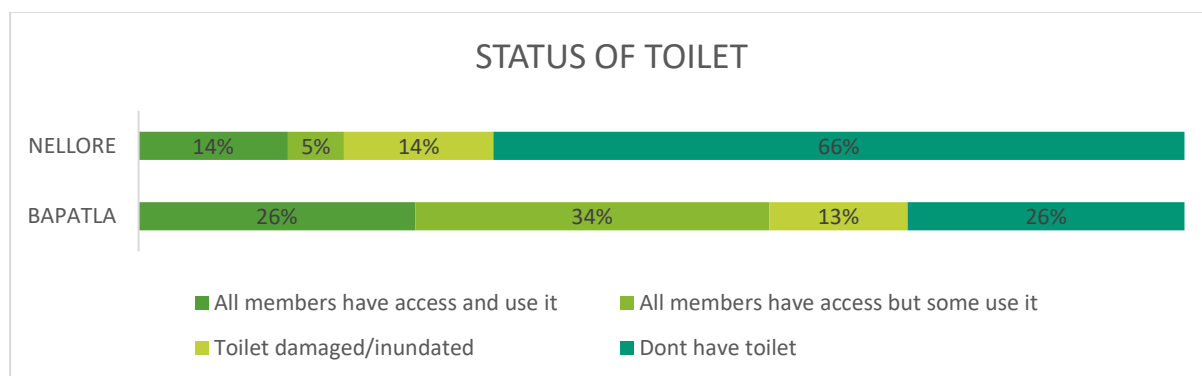
GRAPH 38: SHELTER DAMAGED DUE TO CYCLONE

Current Status of House: When asked about the status of their houses, those who reported that their house is damaged, 27% of respondents from Bapatla and 6% from Nellore said that their houses were partially collapsed. Additionally, 18% from Bapatla and 12% from Nellore reported that their houses were inundated or drowned in water. Furthermore, 44% of respondents from Nellore and 23% from Bapatla stated that their houses were unsafe to live in and needed repair. Moreover, 4% from Nellore and 14% from Bapatla mentioned that their houses were contaminated with mud and debris. Lastly, 12% of respondents from Nellore reported the loss of household goods due to the disaster.



GRAPH 39: CURRENT STATUS OF HOUSE

Status of Toilets:

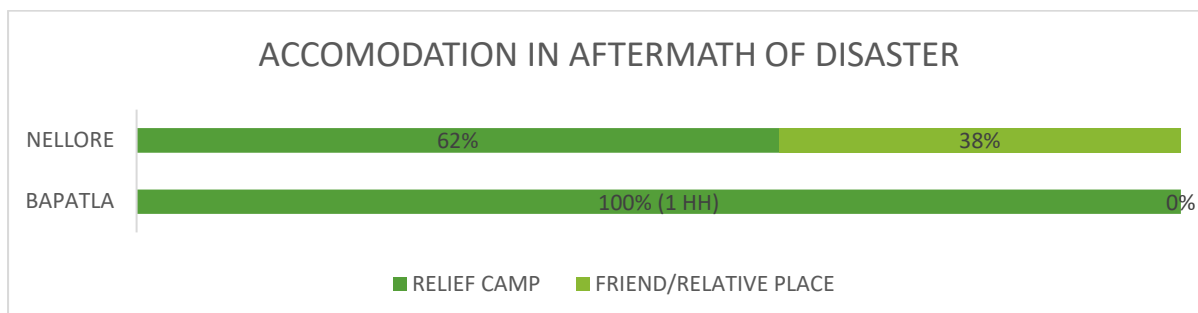


GRAPH 40: STATUS OF TOILETS

Fourteen percent of respondents from Nellore and 26% from Bapatla stated that all members have access to a toilet and use it. In addition, 5% of respondents from Nellore and 34% from Bapatla reported that all members have access to toilets, but only some use them. Moreover, 66% of respondents from Nellore and 26% from Bapatla indicated that they don't have toilets. Furthermore, 14% of Nellore and 13% from Bapatla reported that their toilets are either damaged or inundated due to the cyclone.

Evacuation Status:

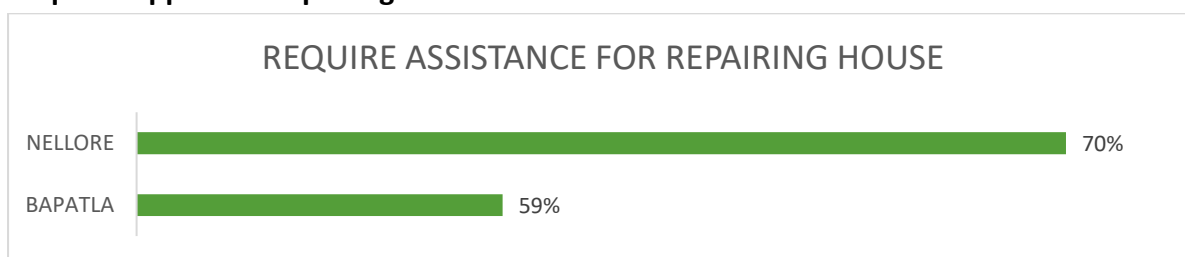
In assessing the evacuation status of respondents following the disaster, it was observed that 1% of households from Bapatla and 46% of respondents temporarily evacuated from their houses due to the disaster. Among those, one household from Bapatla and 69% of households from Nellore reported that they were evacuated during the disaster. Additionally, 19% of respondents from Nellore reported that they were evacuated before the disaster, and 12% mentioned that they were evacuated after the disaster.



GRAPH 41: EVACUATION STATUS

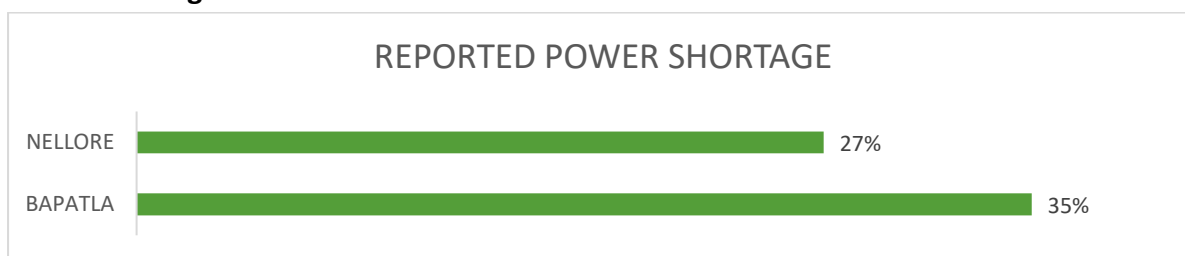
When asked about accommodation in the aftermath of the disaster from those who evacuated, 62% of respondents from Nellore stated that they were shifted to relief camps, while 31% mentioned that they shifted to friends' or relatives' places.

Require support for repairing House:



Many people in the affected areas need help repairing their homes. When asked, 70% of those in Nellore and 59% in Bapatla, whose houses were damaged by the cyclone, said they require assistance in fixing their homes.

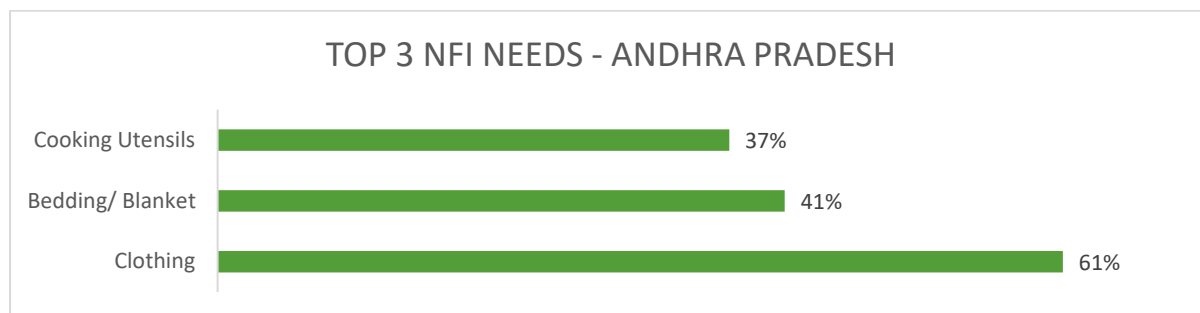
Power Shortage:



GRAPH 42: REPORTED POWER SHORTAGE

The assessment findings indicate that power shortage has emerged as a significant concern both during and after the days of the cyclone impact. 35% from Bapatla, and 27% from Nellore reported experiencing issues related to power shortage.

Top 3 NFI Needs:



GRAPH 43: TOP 3 NFI NEEDS

In Andhra Pradesh, a considerable portion of respondents expressed specific needs following the cyclone impact. Approximately 61% reported a requirement for clothing, 41% expressed the need for blankets, and 37% indicated a necessity for cooking utensils.

Urgent Needs

1. Swift provision of blankets, sleeping bags, and mats to ensure that affected families have the necessary bedding materials for a secure and comfortable sleep.
2. Expedited deployment of prefabricated or easily assembled temporary shelter structures to offer immediate and secure housing solutions for those whose homes have been damaged or rendered uninhabitable.
3. Urgent distribution of hygiene kits, including toiletries and sanitation supplies, to maintain health and hygiene standards in temporary shelters and prevent the outbreak of diseases.
4. Provision of portable and rechargeable emergency lighting solutions to ensure visibility and safety in temporary shelters, particularly during the night.
5. Immediate supply of water purification kits to enable access to clean and safe drinking water, addressing a critical need in the aftermath of a disaster.
6. Rapid distribution of emergency repair kits equipped with tools and materials necessary for quick repairs to damaged houses, empowering affected communities to make essential improvements to their living conditions.

4.7 PROTECTION

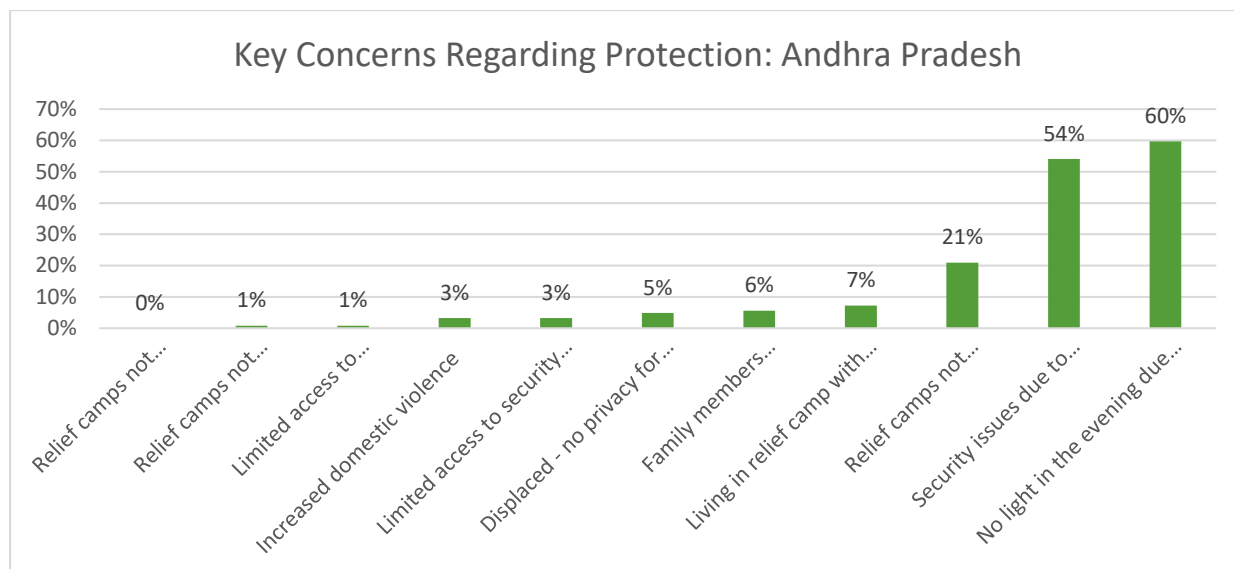
Overview

The Protection Sector analysis reveals critical protection issues, including security concerns due to damaged shelters, limited access to security mechanisms, family separations, power outages, privacy challenges, inadequate bathing/toilet facilities, limited access to menstrual hygiene products, and exclusion of SC/ST and PwD communities from relief camp services. Urgent action is needed to address these gaps and ensure the safety, dignity, and well-being of the affected populations.

Assessment Findings

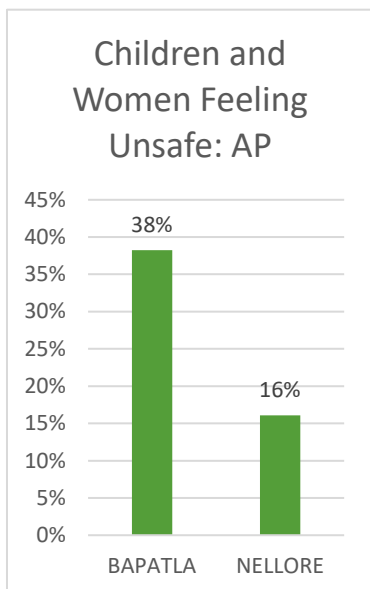
In the aftermath of Cyclone Michaung in Andhra Pradesh, a comprehensive assessment revealed significant challenges faced by affected communities. 60% of respondents reported

a lack of lighting in the evening, while 54% expressed security concerns due to shelter damage. Additionally, 21% of respondents highlighted the inaccessibility of relief camps to Scheduled Castes (SC) and Scheduled Tribes (ST), and 7% reported residing in relief camps with limited privacy for women and girls. Notably, there were no specific concerns raised about the accessibility of relief camps for transgender individuals. Only 1% of respondents reported that relief camps were inaccessible for Persons with Disabilities (PwD) and expressed limited access to menstrual hygiene facilities.



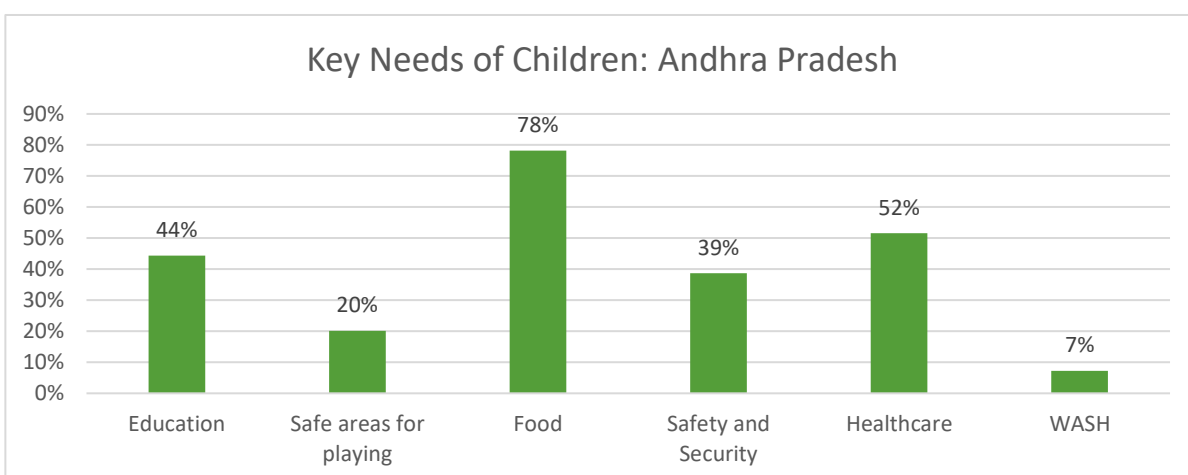
GRAPH 44:KEY CONCERNS REGARDING PROTECTION

In the examination of the sense of insecurity among children and women in cyclone-affected areas, the assessment reveals notable concerns. In Bapatla district, 38% of respondents reported that women and children are experiencing feelings of insecurity. Similarly, in Nellore district, 16% of respondents echoed these concerns. These findings emphasize the pervasive nature of the perceived lack of safety among women and children in various cyclone-affected regions



According to the assessment findings, a substantial proportion of respondents in Andhra Pradesh expressed urgent needs related to the well-being of children. Specifically, 78% of respondents highlighted the necessity for food provisions for children, while 52% emphasized the critical need for healthcare facilities catering to children's requirements. Additionally, 44% of respondents in Andhra Pradesh identified a need for educational support for children, and 39% reported a demand for enhanced safety and security measures.

GRAPH 46: CHILDREN AND WOMEN FEELING UNSAFE

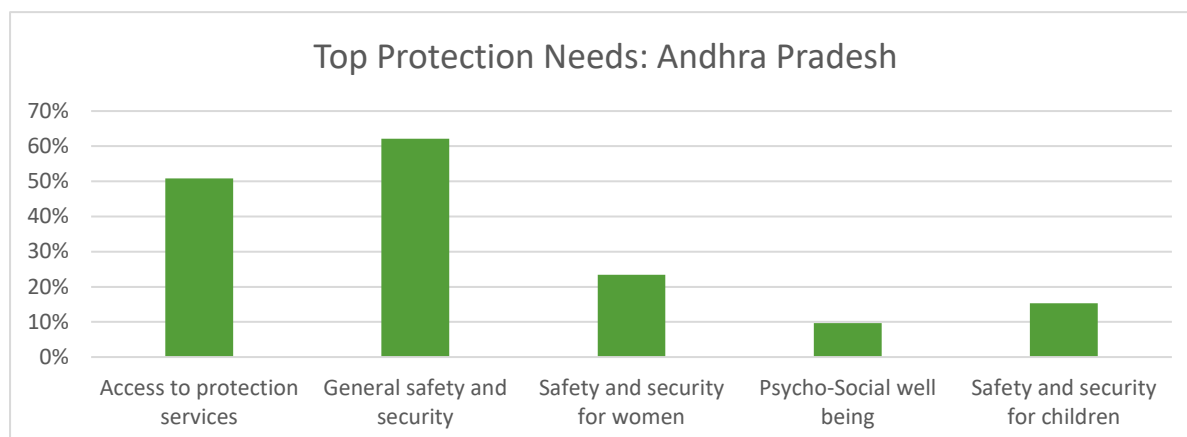


GRAPH 45: KEY NEEDS OF CHILDREN

These assessment findings underscore the diverse and immediate needs pertaining to children's well-being in Andhra Pradesh, necessitating targeted interventions in the areas of food security, healthcare, education, and safety measures.

In Andhra Pradesh, 62% of respondents conveyed apprehensions about general safety and security, signifying a prevalent sense of concern within the community. Moreover, 51% of respondents articulated worries about access to protection services. Specific concerns about the safety of women were reported by 23% of respondents, and 15% expressed concerns about the safety and security of children in the aftermath of the cyclone. Additionally, 10% of

respondents voiced concerns about the psycho-social well-being of individuals in Andhra Pradesh.



GRAPH 47:TOP PROTECTION NEEDS OF COMMUNITY

Urgent Needs

Based on the provided information, the urgent needs in the protection sector for addressing the impact of Cyclone Michaung in Andhra Pradesh includes:

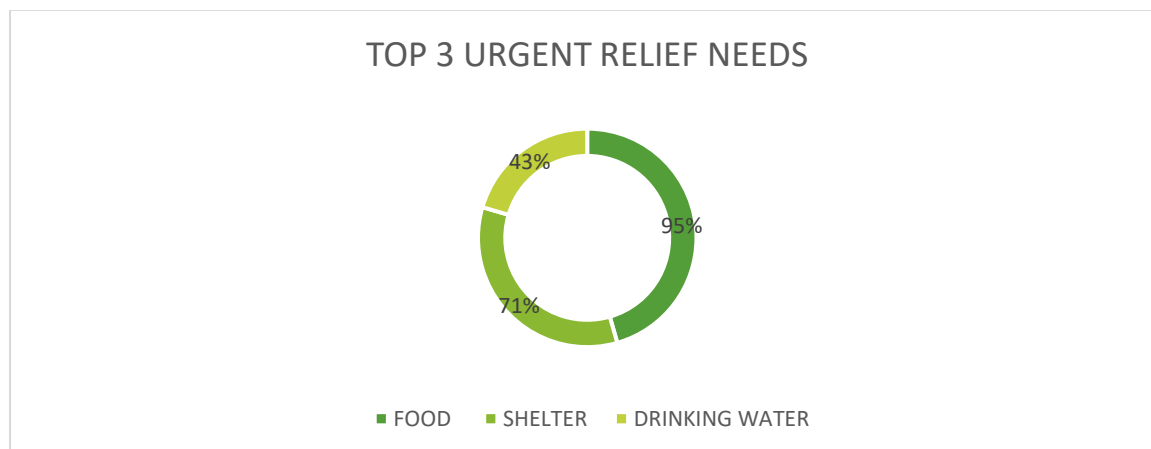
1. Recognizing the widespread concern, urgent measures are required to enhance general safety and security, addressing the apprehensions of 62% of respondents in in Andhra Pradesh.
2. There is a pressing need to enhance access to protection services, as indicated by concerns raised by respondents in Andhra Pradesh.
3. Tailored interventions and safeguards are urgently needed to address specific concerns regarding the safety and security of women in both regions.
4. Targeted initiatives to address psycho-social well-being are crucial, acknowledging the expressed concerns in both regions.
5. Urgent coordination efforts are necessary among various stakeholders, including government agencies, NGOs, and community leaders, to ensure a comprehensive and holistic approach to protection in Andhra Pradesh.

4.8 RELIEF AND RECOVERY NEEDS

Assessment Findings

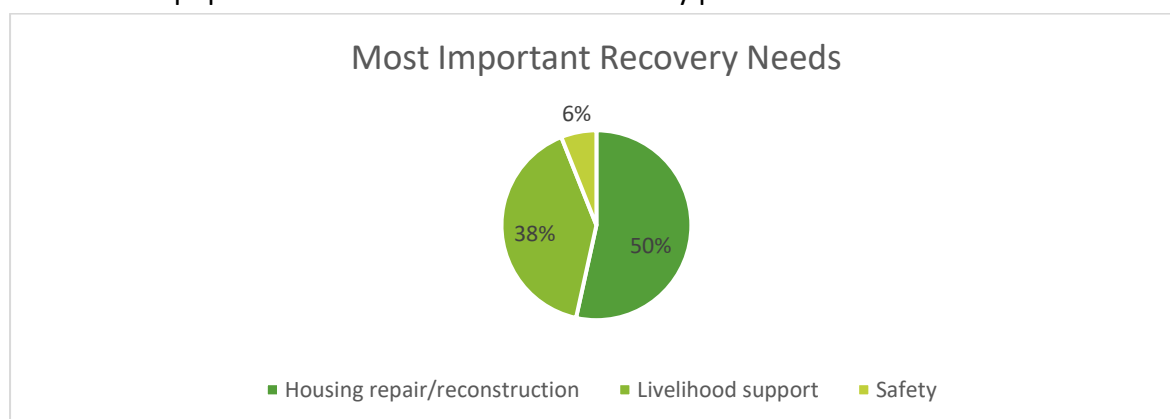
The most critical urgent relief needs requested by respondents include food assistance in Andhra Pradesh (95%) to address immediate food security challenges. The provision of shelter was also brought up as a significant concern, with 71% of respondents expressing an urgent need for safe and secure housing in Andhra Pradesh. Clean drinking water and sanitation are also pressing needs for the affected population with 43% of the respondents citing the same

in Andhra Pradesh. Medical and Health Support is also listed by respondents as urgent relief needs.



GRAPH: MOST URGENT RELIEF NEEDS

The most important recovery needs for the affected areas include housing repair and reconstruction in Andhra Pradesh (50%). This is followed by livelihood support (38%) in Andhra Pradesh. Safety is also cited an important recovery need by respondents by 17% of the respondents. Addressing these relief and recovery needs is crucial to effectively support the affected populations and facilitate their recovery process.



GRAPH 48: MOST IMPORTANT RECOVERY NEEDS

5. RECOMMENDATIONS

FOOD NUTRITION AND LIVELIHOOD

Short-term:

- Dry ration food kits including nutrition kits to be provided to meet ration shortage/fill the gap of inability to purchase the food. Status of functioning of government and non-government community kitchens can be ascertained and revamped to fill this gap
- Assess the status of schemes such as mid-day meals for children and supplement it with provisioning of nutrition kits for children, pregnant women, lactating mothers, sick and elderly.

- Provide immediate cash-for-work programs, converged with MGNREGA, and increase the wage rate to compensate for wage loss, creating employment opportunities for affected individuals with primary focus on debris clearance, infrastructure repair, and restoration activities.
- Distribute agricultural inputs and livestock support to farmers and pastoralists to revive agricultural activities and ensure food security.
- Expedite ex-gratia assistance as per SDRF norms and provide special provisions for families who have lost key earning persons, enabling them to initiate new livelihood activities and rebuild their sources of income.

Mid-term:

- Detailed nutrition assessment of the affected communities especially focusing on infant and young children, adolescent girls, pregnant/lactating mothers, and elderly, PWD, single women headed households in a conflict scenario.
- Design and enrollment of GO-NGO partnership for recovery of food security and nutrition and livelihoods of the affected population utilizing governmental support mechanisms and resources.
- Facilitate access to microfinance and credit facilities, including providing access to public credit, for small businesses and entrepreneurs without guarantees and assets for enabling the affected population to rebuild and diversify local economies.
- Daily wage workers are numerous in the areas, and they can be engaged in the various capacities related to cyclone recovery. This is an opportunity for skill development units to run short term course to convert them into skilled human resource to diversify their income sources.
- Form livelihood committee at village and create pooled funds to provide support to affected communities to restart their livelihoods.

Long-term:

- Encourage the establishment of community-based cooperatives and value chains to enhance market linkages and improve income generation prospects.
- Advocacy with Government and linkages with food security social protection schemes of the government.
- Linkage with MGNREGA, Rastriya Krishi Vikash Yojana (RKVY) for all round development of agriculture and allied sectors for food security.
- Promote sustainable and climate-resilient livelihood options such as eco-tourism, agroforestry, and renewable energy projects.
- Veterinary department should ensure seasonal vaccine and veterinary care to the injured and remaining livestock.
- Strengthen vocational training and technical education programs to equip the workforce with skills in emerging sectors and promote economic diversification.

HEALTH

Short-term:

- Conduct health assessments and provide emergency medical care, including mobile clinics and medical supplies, to address immediate health needs.
- Mobile Van Health Facilities should be provided in hard-to-reach areas.
- Awareness about basic hygiene promotion hand washing is critical to help prevent the spread of illness and disease.
- Implement disease surveillance systems and early warning mechanisms to monitor and prevent outbreaks of waterborne diseases, vector-borne illnesses, and other health risks.
- Provide mental health and psychosocial support services to individuals and communities affected by the cyclone. Grief and shock are normal in the immediate aftermath of a natural disaster; psychological counselling support is required.
- Special care should be given to people with disability, elderly, pregnant women, and children in terms of accessibility to health services.
- Removal of sludge and other waste should be done properly to reduce risk of long-term diseases. The contamination of water with faeces, silt and debris are likely to affect the areas, leading to rise in cases of diarrhoea, dysentery, and other waterborne diseases. Vaccines are recommended for people, where poor sanitation and unsafe water are common.
- Women/adolescent girls on their period are at greater risk especially the ones who are relocated. No access to clean cloth or sanitary napkins as absorbents of menstrual blood can be there in shelter homes. Awareness of safe and easy access to sanitation, supply of water, free distribution of sanitary napkins/ culturally appropriate sanitary towels to be ensured. Provision of sanitary napkins as essential items.
- Chlorination/disinfection of the water sources at the health facility can be recommended.
- Bed nets can be made available for the indoor patients in mosquito breeding zones.

Mid-term:

- Strengthen and upgrade health facilities and infrastructure in affected areas, ensuring access to quality healthcare services for the long term.
- Enhance capacity-building initiatives for healthcare workers, including training on emergency response, trauma care, and psychosocial support.
- Communication strategy needs to be developed for creating massive awareness among the community on safe health and hygiene practices during disaster. IEC materials need to be adequately distributed among the affected population for awareness purpose.
- Improve access to essential medicines, vaccines, and medical equipment, establishing robust supply chains and emergency stockpiles.

- Doctors can be deployed for medical checkups after few months of the disaster which will give us an understanding of any post cyclone diseases prevailing in the community.

Long-term:

- Develop community-based health promotion programs, focusing on preventive measures, health education, and awareness campaigns.
- Strengthen primary healthcare systems, ensuring comprehensive and accessible services, including maternal and child health, nutrition, and preventive care.
- Alternative arrangement for power supply (generator, fuel etc.) in Health facilities/ Institutions should be made as a sustainable option.
- Invest in healthcare workforce development, including recruitment, training, and retention of qualified healthcare professionals in the affected areas.

SHELTER

Short-term:

- Provide emergency shelter materials, such as tents, tarpaulins, and temporary shelters, to displaced families and individuals.
- Provide shelter kits based on the local construction practices along with the quick guide on repairs.
- Creation of teams of masons at Gram Panchayat level in coordination with local administration to support affected households.
- Establish community-led shelter management committees to coordinate the distribution of shelter materials and ensure equitable access to temporary shelter.
- Advocacy with government for owner-driven reconstruction process for reconstruction of houses.

Mid-term:

- Repair and rehabilitate damaged houses, using disaster-resilient construction techniques and materials, to provide safe and durable shelter options.
- Training of construction workers on cyclone resistant features and safe construction practices.
- Strengthen the capacity of local communities in disaster-resistant construction practices through training programs and technical support.
- Develop transitional housing solutions to accommodate displaced families during the reconstruction phase, ensuring access to essential services and livelihood opportunities.
- Preparation of database of vulnerable housing stock should be prioritized for retrofitting or new construction under government support using AI based model and ground verification.

Long-term:

- Develop and enforce building codes and regulations that incorporate disaster resilience and safe construction practices, ensuring the long-term safety of housing structures.
- Promote the construction of safe and affordable housing, considering climate-resilient designs and incorporating community input in the planning process.
- Support the establishment of housing finance mechanisms and access to affordable loans to facilitate the reconstruction and acquisition of permanent housing for affected households.
- Enhance land-use planning and zoning regulations to minimize the risk of future disasters and ensure safe settlement locations.
- Facilitate community-driven approaches to shelter reconstruction, encouraging participation, and empowering local communities in decision-making processes.

EDUCATION

Short-term:

- Plan and implement a comprehensive infrastructure rehabilitation program for damaged schools in Bapatla, including electrical systems and drainage to prevent future disruptions.
- Collaborate with local authorities and communities to expedite the reconstruction process.
- Set up temporary learning spaces equipped with essential materials in affected areas and shelters to ensure the uninterrupted continuation of education.
- Provide schools with necessary resources for makeshift classrooms to accommodate displaced students.
- Provide specialized learning materials, school supplies, textbooks and resources tailored to the diverse needs of students with disabilities in affected areas.
- Provide psychosocial support to children and teachers experiencing multiple challenges of cyclone.

Mid-term:

- Plan and implement a comprehensive infrastructure rehabilitation program for damaged schools in in the affected areas including electrical systems and drainage to prevent future disruptions.
- Implement structural enhancements to school buildings in disaster-prone areas to withstand the impact of cyclones and flooding.
- Facilitate regular drills and training sessions to familiarize students and teachers with evacuation procedures and emergency protocols, enhancing overall community readiness.
- Establish community-based disaster response committees to enhance local preparedness and resilience.

- Facilitate regular drills and training sessions to familiarize students and teachers with evacuation procedures and emergency protocols, enhancing overall community readiness.

Long-term:

- Integrate disaster preparedness education into the long-term curriculum to equip students and communities with the skills and knowledge needed to respond effectively to future cyclones.
- Train teachers on Education in Emergencies so that continuity of learning in emergencies can be ensured.
- Establish community-based disaster response committees to enhance local preparedness and resilience.

WATER, SANITATION, AND HYGIENE (WaSH):

Short-term:

- All the drinking water sources need to be disinfected immediately to make people access to safe drinking water facilities. Additionally, disinfectants (Halogen tablets/ Bleaching powder etc) may be supplied to the required households in the community.
- Immediately deploy water tankers to areas facing acute shortages, focusing on Bapatla, and Nellore.
- Provide temporary sanitation facilities like portable toilets and communal bathing spaces in severely affected regions, prioritizing areas with damaged infrastructure.
- Supply hygiene kits containing soap, menstrual hygiene products, and water purification tools to households facing shortages, especially in AP.
- Along with the supply of sufficient Hygiene Kits, there is an immediate need to use the IEC materials on hygiene education, especially on personal hygiene and Menstrual hygiene and use of some such IEC materials.

Mid-term:

- Prioritize restoring damaged water supply and sanitation infrastructure in Bapatla, and other highly affected regions to reinstate reliable services.
- Conduct awareness campaigns on water conservation, safe sanitation practices, and hygiene maintenance to promote sustainable habits.
- Implement programs for wider distribution and accessibility of filtration systems, focusing on areas with low adoption rates like Nellore and Bapatla.

Long-term:

- Implement sustainable WaSH infrastructure projects, such as rainwater harvesting systems and improved sanitation facilities, to ensure long-term access to clean water and sanitation services.
- Strengthen early warning systems, particularly in Bapatla, to improve disaster preparedness and response.

- Cleaning, disinfection, and maintenance of village ponds should be taken up jointly to ensure that the ponds serve as emergency water sources and not turn into waste dumping areas.
- Develop water resource management plans to ensure efficient use and conservation of water sources, especially during periods of scarcity.
- Ensure equitable access to safe water and sanitation for all, especially addressing gender-specific needs by providing private sanitation spaces and hygiene support for women and girls.
- Promote community-led initiatives and capacity-building programs to sustain hygiene practices and sanitation standards in the long run.
- Advocating and Influencing Govt to adhere resilient WaSH flagship programs along with proper Operation and Management in Place for community WaSH facilities, (On both drinking water and Sanitation) towards its sustainability.

PROTECTION

Short-term:

- Enhance the presence of law enforcement in affected areas to deter and respond to potential security threats, ensuring a swift and coordinated response to maintain order.
- Swiftly enhance and deploy protection services to ensure the safety of vulnerable groups, including women and children, addressing immediate security concerns.
- Launch psycho-social support programs to address the emotional and mental well-being of the affected population, providing counseling and support services.

Mid-Term:

- Initiate mid-term plans for rehabilitating critical infrastructure, including housing, roads, and public facilities, to restore normalcy and improve living conditions.
- Implement community-based protection initiatives, involving local leaders and residents, to actively participate in the design and implementation of protection measures, fostering a sense of ownership and resilience.
- Roll out mid-term educational programs and skill development initiatives to ensure continuity in education for children and provide adults with the skills needed for employment opportunities.
- Conduct mid-term training programs for protection workers to enhance their skills in identifying, preventing, and responding to protection issues, ensuring a more effective and empathetic response.

Long-Term:

- Advocate for and contribute to the development of long-term policies that prioritize inclusive protection measures, ensuring the rights and safety of all community members, irrespective of gender, age, or socio-economic status.

- Establish long-term community-led disaster preparedness programs, integrating protection considerations into overall disaster management plans to enhance community resilience.
- Invest in long-term research and data collection on protection issues, ensuring a comprehensive understanding of evolving vulnerabilities and enabling evidence-based decision-making for future protection strategies

Annexure

JRNA Questionnaire

Household Questionnaire

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FIELD PHOTOGRAPHS:



JRNA Report - Cyclone Michaung – Andhra Pradesh



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