

2021

UTTARAKHAND DISASTER JOINT NEEDS ASSESSMENT REPORT



Acknowledgements

We acknowledge and express our gratitude to the humanitarian organisations for their efforts to carry out Joint Needs Assessment and writing report on situation analysis along with recommendations for immediate interventions.

The Joint Needs Assessment is the result of hard work of the Humanitarian organisations responding to the Uttarakhand disaster, Inter Agency Group of Uttarakhand, Sphere India Sectoral Committees and the report writing team under the overall guidance of State Disaster Management Authority, Uttarakhand with effective support of District Disaster Management Authority, Chamoli. The volunteers in the fields have taken personal risks to collect the data through FGDs and individuals for the report.

The Organisations including Janmaitri Sansthan, Agaz Foundation and Society for Environment and Development, IAG Uttarakhand and the Sphere India Coordinators supported the planning, data collection and steered the report drafting and finalisation process.

We also express our gratitude to community members for providing proper information to data collectors despite living in tough situation.

Table of Contents

Acknowledgements	1
Uttarakhand Disaster	3
Background.....	3
Rationale	5
FOOD AND NUTRITION SECURITY	8
Recommendations.....	13
SHELTER.....	15
Recommendations.....	18
HEALTH.....	20
Recommendations.....	25
EDUCATION	28
Recommendations.....	30
PROTECTION	31
Recommendations.....	34
WASH	36
Recommendations.....	40
CONCLUSION	42

Uttarakhand Disaster

Background

On 7th February 2021, a disaster struck the Chamoli district of Uttarakhand. May provide exact causes as these words (flash flood, avalanche etc) SDMA is reluctant to use.

The disaster is believed to be caused by an avalanche breaking off a piece of the glacier in Joshimath. On a steep ridge at some 5,600 meters (18,370 feet) in elevation, a collapsed mountain slope pulled down a glacier that was perched on the mountain, and the resulting rock-ice-snow mass hit the valley floor at some 3,500 meters. Then the mass all flowed downwards through the valley.

The disaster brought down debris, mud and soil into the downstream areas of a stream. The debris blocked the natural course of the stream, creating an artificial dam. Under pressure from the debris, the blockade in the stream gave way, resulting in a huge amount of water flowing downstream, taking boulders, rocks, soil and vegetation along with it in its course.

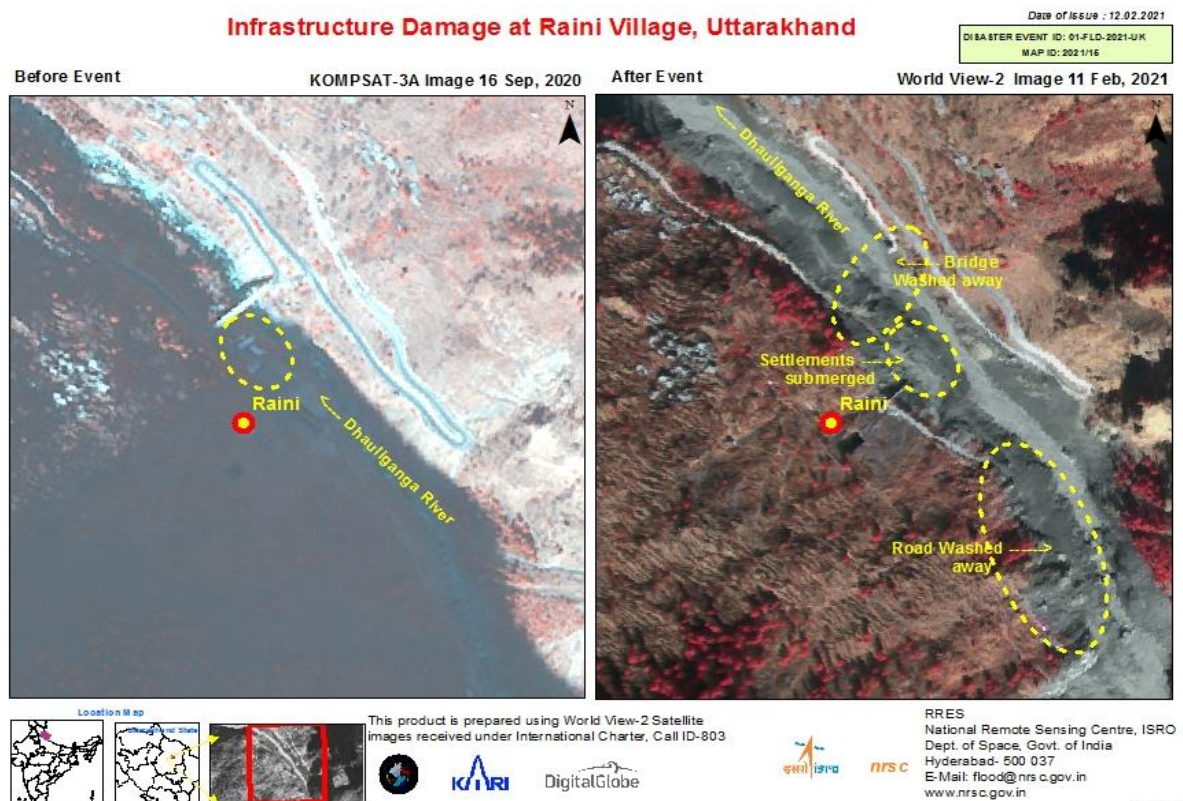


Figure 1 showing destruction in Raini Village.

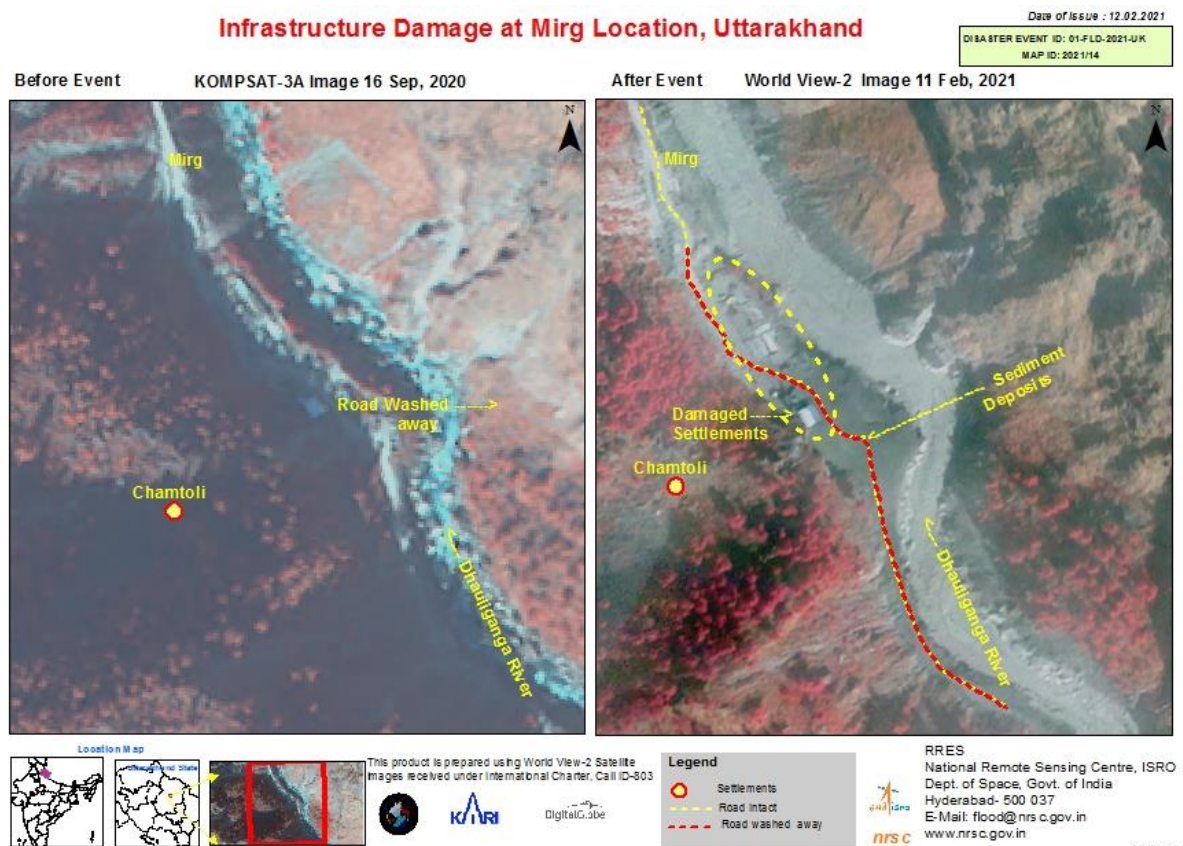


Figure 2 showing destruction in Mirg Village.

There have been 72 reported deaths and any missing persons have now been declared dead by the Government of India. There was significant destruction caused to villages in and around Chamoli as well as to large construction sites where many workers were trapped and rescued.

The sudden disaster resulted in the loss of human life and caused major disruptions and destruction in the lives of affected population. Their food supply, water sources, health centres, houses and livelihoods were damaged.

There was an urgent need to propose appropriate measures to act on the emergency situation at Uttarakhand. Sphere India realizes the need and tried to support the efforts of SDMA, IAG and other organizations who are actively working at affected district.

A meeting was then coordinated with officials of SDMA(Uttarakhand), IAG Convenor with some of the member NGOs and Sphere India. Further, to analyse these issues arising out of the emergency situations Sphere India along with its member organizations and with effective

participation from IAG Uttarakhand under the guidance of SDMA Uttarakhand conducted Joint Need Assessment with the population of affected villages.

In order to identify and assess the needs of the affected population, Sphere India mobilised and coordinated with 12 volunteers to collect information from 15 different villages. A survey on Kobo Collect was designed and shared with the volunteers after orientation and technical training to collect this data from the affected population.

Rationale

The severe disruption to the lives of affected population by the disaster in Uttarakhand has left people in need of humanitarian assistance. Their water sources, food resources, shelters, livelihoods, and health facilities have all been disrupted. Vulnerable populations have further been pushed to the margins as they are now operating with interrupted or in the absence of resources. Therefore, Sphere India undertook the exercise of developing a joint needs assessment report in order to coordinate humanitarian response and ensure it caters to the needs of the affected population. Through JRNA Sphere India tried to harmonize the assessment, analysis and prioritization of damages, losses with respect to various sectors so as to support SDMA in effective future planning. The main goal was to assess the full extent of a disaster's impact, define the needs for planning for recovery in view of damaged infrastructure, houses, livelihoods, services, governance and social systems, and includes an emphasis on reducing future disaster risks and building resilience.

Villages surveyed: TallaRaini, MallaRaini, Peng, Murandda, Juwwagwad, Subhai, Latta, Suki, Bhallagaon, Pagrasu, Surraithota, Tolma, Laungsegadi, Phagti, TapovanBhangyul, Ringi, Karcho, Dhak, Kundikhola, Badagaon, Karchi

Methodology:

The Joint Need Assessment in affected areas of Uttarakhand Disaster has been conducted to identify the urgent, mid-term and long-term needs of affected community based on Food & Nutrition, Health, WASH, Shelter, Education, Livelihood and Protection, and to flag out the geographical challenges of affected community to access the basic services and entitlements.

It was done through joint efforts from Sphere India, Inter-Agency Group Uttarakhand, Uttarakhand State Disaster Management Authority and Chamoli District Disaster Management Authority.

Data was collected based on the indicators of the specific tools/questionnaires used during the interviews/ discussions/ FGDs.

The methodology was based on:

1. Structured interviews done with affected 20% households (ensuring prioritise random households from all 21 most affected villages).
2. Structured village level information gathering from most affected 21 villages based on Food & Nutrition, Health, WASH, Shelter, Education, Livelihood, Protection and accessibility of community towards basic services and entitlements.
3. Brief discussions with Gram Panchayat Members, Ward Members, local self-help groups, local CSOs & NGOs who had pre-disaster existence in the area and also assist community with relief post disaster.
4. Focus group discussions (FGD) with mixed group of Gram Panchayat members, local leaders and outreach workers and community members.
5. Information gathered from site engineers and site workers who are engaged in the repairing of broken bridge and clearing the roads to understand the logistic system and accessibility of affected community to various basic services.
6. Secondary data to examine the observation and facts.

1.1 Rational behind the Sampling for Assessment:

To validate the findings and observations and to capture the quantitative and qualitative impact of the disaster on households living in affected areas, the sample for the assessment included the affected households, affected villages, feedback from various stakeholders, and feedbacks from local CSOs & NGOs who had pre-disaster existence in the area and also assist community with relief post disaster have been recorded.

Accordingly, 200 household-based respondents which is approx. of 20% of affected population were interviewed, all 21 most affected villages Talla Raini, Malla Raini, Peng, Murandda, Juwwagwad, Subhai, Latta, Suki, Bhallagaon, Pagrasu, Surathota, Tolma, Laungsegadi, Phagti, Tapovan Bhangyul, Ringi, Karcho, Dhak, Kundikhola, Badagaon, Karchi have been assessed and documented based on the instruments/tools/questionnaires.

Total 14 Focus Group Discussions (FGDs) have been organized with mixed group of Gram Panchayat members, local leaders and outreach workers and community members to capture more qualitative information and the information which might missed in structured data collection.

This disaster affected area becomes inaccessible very frequently even during peace period due to fragile hilly terrain and frequent landslides, which not just affects their access to basic services i.e. health, education, livelihood etc. but also keeps them isolated from mainstream knowledge and information. Hence gathering the information from site engineers and site workers who are engaged in the repairing of broken bridge and clearing the roads to understand the logistic system and accessibility of affected community to various basic services was also crucial.

Secondary data analysis based on information disseminated by government departments, media reports, reports from other national or local organization also has added the quality and authenticity to this need assessment process through opportunity to investigate questions using large-scale data sets that are often inclusive of under-represented groups.

1.2 Primary Data Collection

The data collection process was initiated by documenting interviews of Households and filling the 21 village forms based on exhaustive questions consisting Food & Nutrition, Health, WASH, Shelter, Education, Livelihood, Protection, and geographical challenges. These both questionnaires have been filled through KoBoCollect Tool, wherein format designed by national level experts and incorporation of suggestions from local humanitarian actors done.

In this process, a team of experts have transferred final questionnaires to KoboCollect Tool and trained the data collectors about its usage.

For collecting more authentic information, data have been collected from approx. of 20% of affected population. In this process 200 household-based respondents were interviewed, and all 21 most affected villages have been assessed through village form and documented based on the instruments/tools/questionnaires.

1.3 Quantitative Data Analysis

Two sets of questionnaires i.e. Focus Group Discussion (FGDs) and Interview of Stakeholders were developed, which were sample tested by existing field team, and as per their feedbacks formats were modified and finalised. For optimizing the resources, proper use of advance technology was followed during the survey. All sets of questionnaires were used through mobile based application KoboCollect Tool. This provided sufficient opportunity to the data collectors to access the data immediately transfer on spread sheets.

In order to keep the assessment neutral and unbiased, local volunteers were engaged physically visits and record the responses, for this 4 civil society group members of Inter-Agency Group Uttarakhand have engaged their 12-15 Volunteers and 4 Supervisors to visit the affected areas and collect the data. These volunteers were trained to efficiently use the Mobile based Application KoBoCollect Tool, and provided inbuilt forms to fill during interview of responders. Inter-Agency Group Uttarakhand is the coordinated platform of 56 members and active in the state to support community in preparedness and emergency response. This group is working closely with Uttarakhand State Disaster Management Authority and respective District Disaster Management Authorities.

For keeping Focus Group Discussion process more open, other than assessment related questions, participants were encouraged to provide insights from their own experience, learning and perspectives about vulnerability of their area and immediate needs of affected community.

Once data was collected from KoBoCollect Tool, an internal team cleaned the data under the supervision of experienced Manager. And responses were analysed and highlighted in form of graphs and charts for proving better clarity to readers.

A trained Report Writers' team was engaged since the initial stage, which prepared report based on received information, interviews, FGDs, secondary data analysis, and general

observations of surveyors. Two layered Report Writers' team has been engaged, wherein two members; one field expert and one national level expert per sector have been engaged to articulate the information not just based on collected information but to use their vital experience of humanitarian sector to give proper justice to report.

This Joint Need Assessment Report has been prepared with the structure consisting immediate, mid-term and long term sectoral needs of community, their existing capacity to cope -up with the situation, attention required for preparedness and issues which required urgent attention of advocacy.

FOOD AND NUTRITION SECURITY

Background

In hilly areas, where the population density is much lower, the vulnerable groups often are located away from major facilities connected by transportation. This leads to increased concern of food and nutrition accessibility and availability for the affected population during peace time. This leads to an exacerbation of food shortage during disasters. As per the NitiAyog Report (*SDG India Index & Dashboard, NitiAyog and United Nations, 2019-20*) on state wise performance on reducing hunger as an SDG target, providing access to adequate food and nutrition on non-disaster days is underachieved in Uttarakhand with the SDG 2 index score of 45 out of 100. Nearly 18.7% children below 4 years are underweight, 32.4% of children between 6-59 months are anaemic, 29.9% children under 5 are stunted and approximately 46.5% of pregnant women between 15-49 years of age are suffering with anaemia. Disruption to food services in the present disaster scenario added to the challenges in the state.

Key Concerns

Access to Food

- Food availability in affected areas is a major concern as 82% of the surveyed 152 households expressed unavailability of adequate food and is an immediate need for 60% of the residents.
- According to the data gathered from Joint Needs Assessment, food accessibility in affected areas is a major concern but another concern around it is the lack of money reported by 65% of the 152 households to buy food and food related items. This may lead to scarcity of food to meet the basic requirements and financial burden by reducing the purchasing power of the households while recovering from losses to their assets, if any.

Availability of adequate food as per households

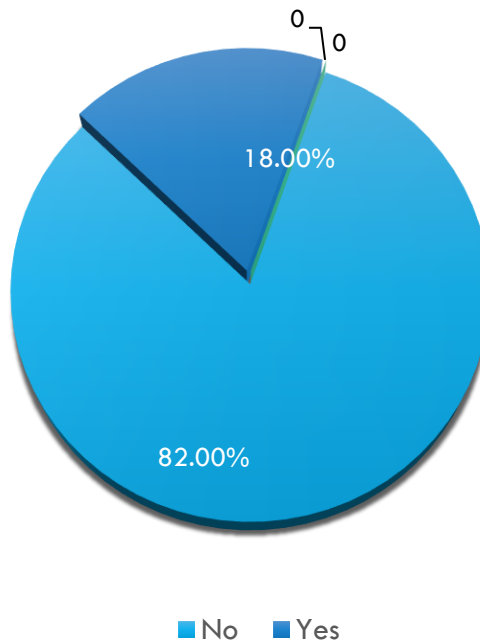


Chart 1- Availability of adequate amount of food as per households

- On the bright side, while studying the data it was noted a significant portion of the population have access to essential items for cooking. Only less than 2% of the surveyed households do not have adequate cooking utensils.
- All of the surveyed households have access to a safe space for breast feeding.
- Access to the markets have been affected majorly as a lot of bridges and connecting roads were damaged or not accessible due to debris. As a lot of market routes have suffered damage, it has also reduced the inwards supply of goods in the market. Creating a situation of limited stock which has now been covered by the state administration, BRO, GREF and engineers by reconstruction of the damaged bridge at RainiVillage

- The expenditure incurred on food post floods has not increased by significant amount whereas the consumption of food by women, men and children has shown variation.

Access to Markets

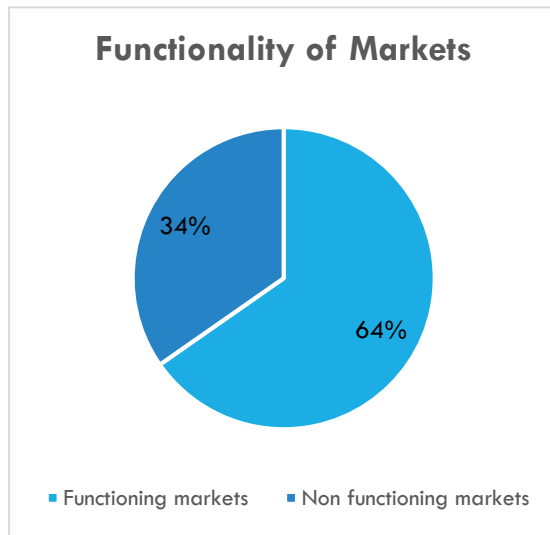


Chart 2 Functioning Markets

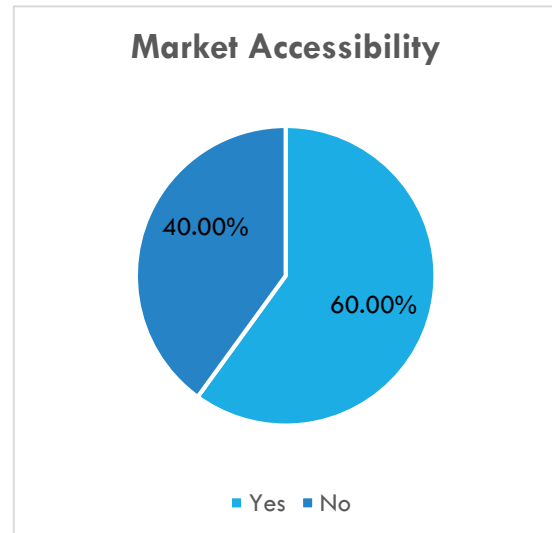


Chart 3 Market Accessibility

- The main cereal for the households continues to be wheat but the households are unable to purchase food material in Raini, Phagati, Latta, Laungsegadi, Tolma and Badaaon.
- The functionality of government safety nets such as PDS shops has been poor in the region as they are located in the area but have not been functioning. While only few of the affected population have lost their Ration card.
- The functioning of ICDS centres in the area imposes a crucial concern as less than 50% claim the nutrition initiatives to be reaching them. While there have been reports of minimal assessment for SAM children, significantly low consultations for SAM children and little efforts to provide additional nutrition for SAM children.

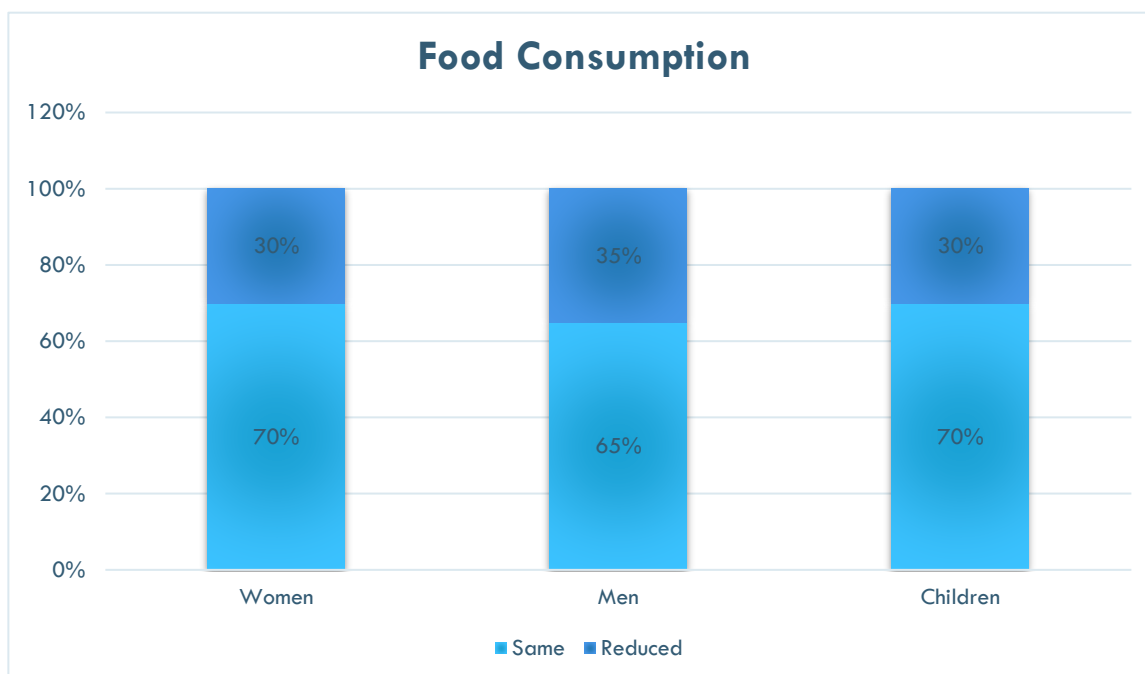


Chart 4 Food Consumption of women, men and children

Key findings for Livelihood

- Nearly 39% of households reported damage to farmlands due to destruction of crops and arable land. In the pursuit, agricultural tools were lost or received damage as per 7% of households; this increases the possibility of delay in the process of recovery for the agriculture community.
- No losses were incurred on the equipment's for fisheries.
- Communities also incurred significant losses to other assets due to the crisis as 21% of the households report damages, while markets for purchasing agricultural supplies and other tools are reported to be not in a functioning state as of now.

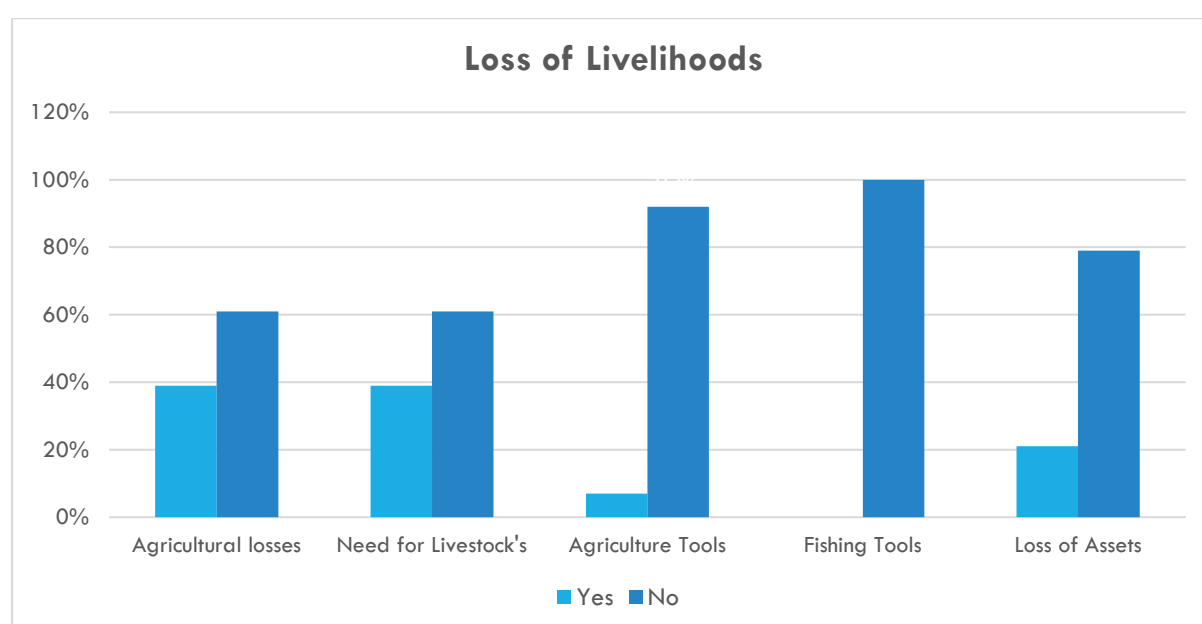


Chart 5 Loss of Livelihoods

- Livestock was also affected with 32% of surveyed population reported losses. While 39% of 217 sample size express the need for livestock. To understand the extent of such losses, only 1 response out of 16 reported severe losses to livestock as 31% reported moderate loss.
- The availability of fodder for livestock has remained out of danger area with 69% reporting no type of loss.

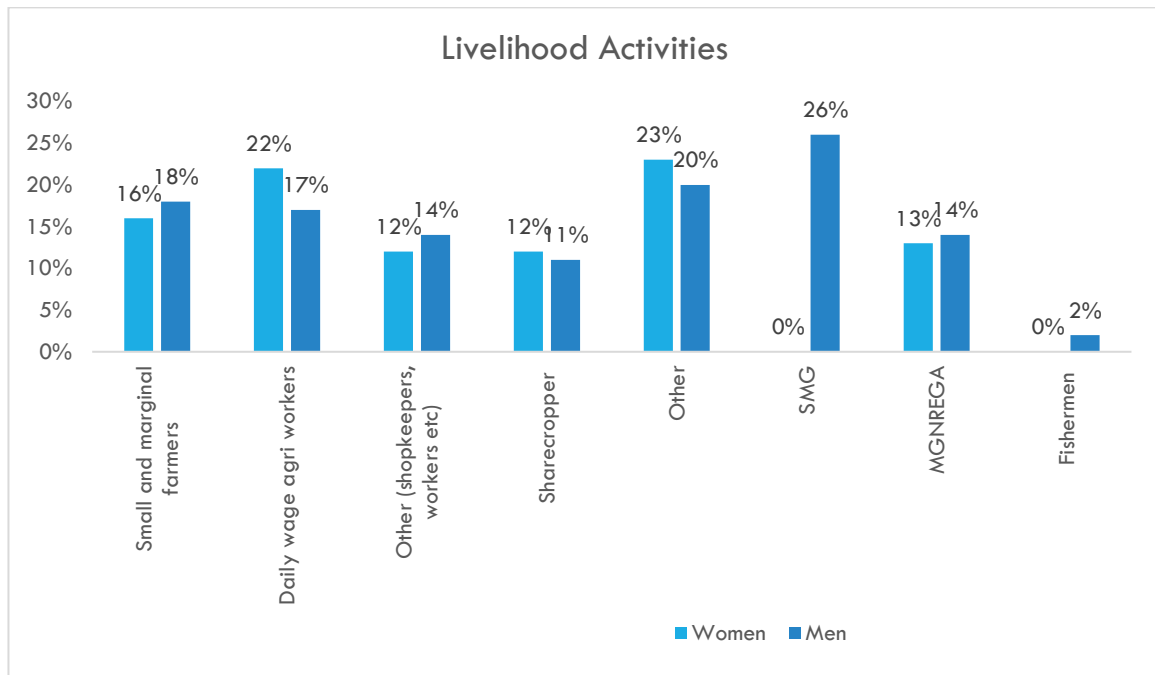


Chart 6 Type of activities men & women are engaged in

Steps taken by local administration-

- The state government with the support of SDRF and district administration has initiated distribution of ration such as rice, salt, spices, dal in the food kit with the support of Helicopters.
- Master trainers were arranged by the Uttarakhand SDMA to provide any information or communication required by the villagers.
- Reconstruction of bridge at Raini village to restore connectivity.

Recommendations

Immediate/Short term

1. Distribute food grains and other rations in Raini (TallaRaini, MallaRaini) Phagati, Latta and other affected blocks for at least three months
2. Identifying areas and pockets deprived of coverage food distribution process and expanding the reach.
3. Special nutrition supplement packets to be made available for each household having children, elderly, lactating and pregnant women, supply can be increased by providing access to supplements through Anganwadi centres.
4. Provide vegetables and ready to eat meals to the ones who've lost their ration cards and cannot avail PDS benefits.
5. Provide unconditional cash support to the affected population suffering with loss of means of livelihood and struggling to buy essential items.
6. Facilitate coordination between agricultural labourers and farmers to clean the land affected due to the floods.
7. During emergencies, nutrition to have equal importance in food distribution process. Areas with poor nutrition security and food supply channels to be focused on as priority

Medium term

1. Advocate for PDS shops to start functioning and distribution.
2. Assist the households in Badagaon which have lost the Ration/PDS cards to re-apply for the same.
3. Link farmers to SHG's and banks to avail loans against the losses to their farmlands and other assets they've incurred.
4. Increase access to markets and their functionality.
5. At risk villages to have hazard mapping exercise and capacity building training of PRI's.
6. ICDS/Anganwadi centres to work on identifying SAM children, to provide counselling and adequate additional nutrition to them in Raini (TallaRaini and MallaRaini), Phagti,

BadaGaon, Latta, Tolma, Laungsegadi, Dhak, Karcho, Karchi, Kundikhola, TapovanBhangyul and Subhai.

7. Training of community on preparedness through conducting mock community coordination exercises, mock token/ticket credit systems to avail food items at discounted prices from SHG's/ community kitchens.
8. Improve food storage conditions and to have a grain bank managed by SHG's for emergencies.
9. Facilitate access skilling and job opportunities for local women and youth.

Long term

8. Design relief package for farmers incurring losses to their farmlands and link the affected population with government schemes and provisions on livelihood.
9. Robust assessments to create a database of the needs of at-risk population based on their gender, age, social category etc.
10. Implementation of measures of CFM/Grievance redressal for disaster relief, reconstruction, and rehabilitation
11. Training and capacity building of Asha/Anganwadi workers, disabled population to address the nutritional needs in times of a crisis.
12. Strengthen the Local Level Committee under the National Trust and strengthen the Village Health Sanitation and Nutrition Committees (VHSNCs) formed under the National Health Mission.
13. Conduct training to dispose dead animal bodies in a more responsible manner.

SHELTER

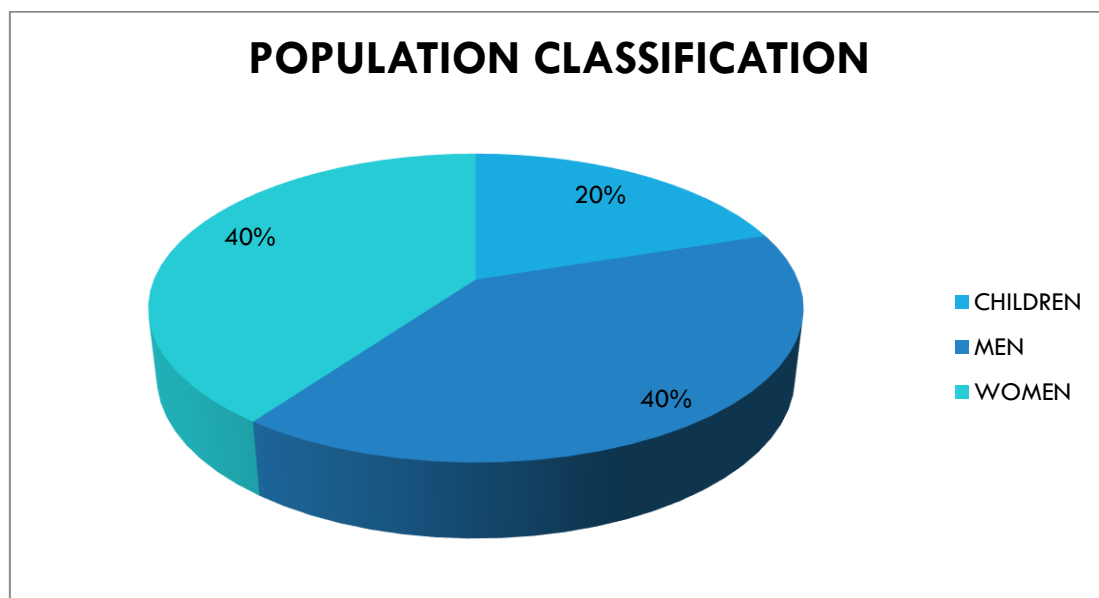
Background

The disaster had a detrimental impact on the basic shelter amenities in several villages. The villages directly impacted were Topovan and Raini village. The houses in these areas have sustained the shock; however, up to 10% house structures have developed cracks in walls and/or dilapidated roofs. The people living in these houses have moved to alternate shelters, either to their extended families, or in the Panchayat Bhawans present at the villages in the vicinity.

None of the families incurred losses on the livelihood resources such as livestock, blankets, clothing, shelter materials, etc. The livestock and cattle are sheltered in the village near panchayat bhawans.

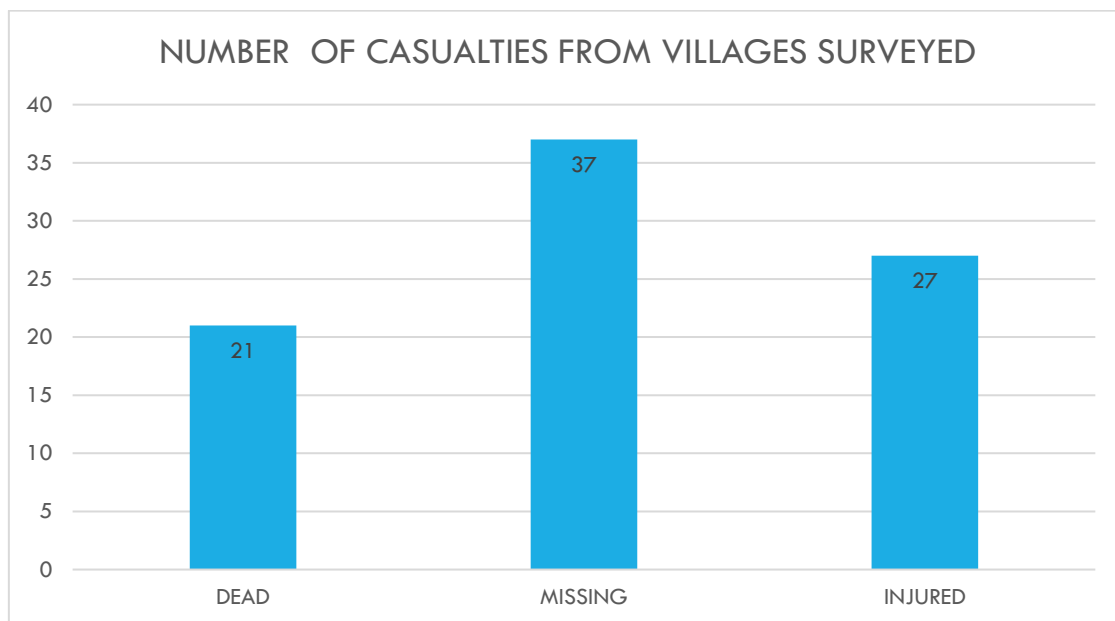
The impact of physical loss was moderate, though disasters have a lasting impact on the social and psychological state of the affected individuals and families. The displaced families received shelter and social protection by the nearby villages and their relatives. It is thus advised that further psychosocial counselling be provided for a sustained recovery.

The survey was conducted among the villages affected by the disaster, and hence all respondents are locals. Few villages covered while surveying include: Raini, Tolma, Bhallagaon, Karchi, Badagaon, Karcho, KundiKhola, Latta, Sukki, Raini etc, reporting a total population of 6478. The classification or population diversity is shown as following.



The added burden of the rising number of the COVID 19 cases in the city and the debris accumulation in most areas disrupted accessibility to safe and adequate shelter conditions in the vicinity.

Inference- Of the total villages surveyed, over 50% were drastically affected, while some had little or no impact due to the flood. This irregularity can be attributed to the difference in hilly terrain and geography of the disaster site. Over 700 individuals were reported to be directly affected by the disaster, some of whom were reported dead, missing or injured.



Key Damages and Losses

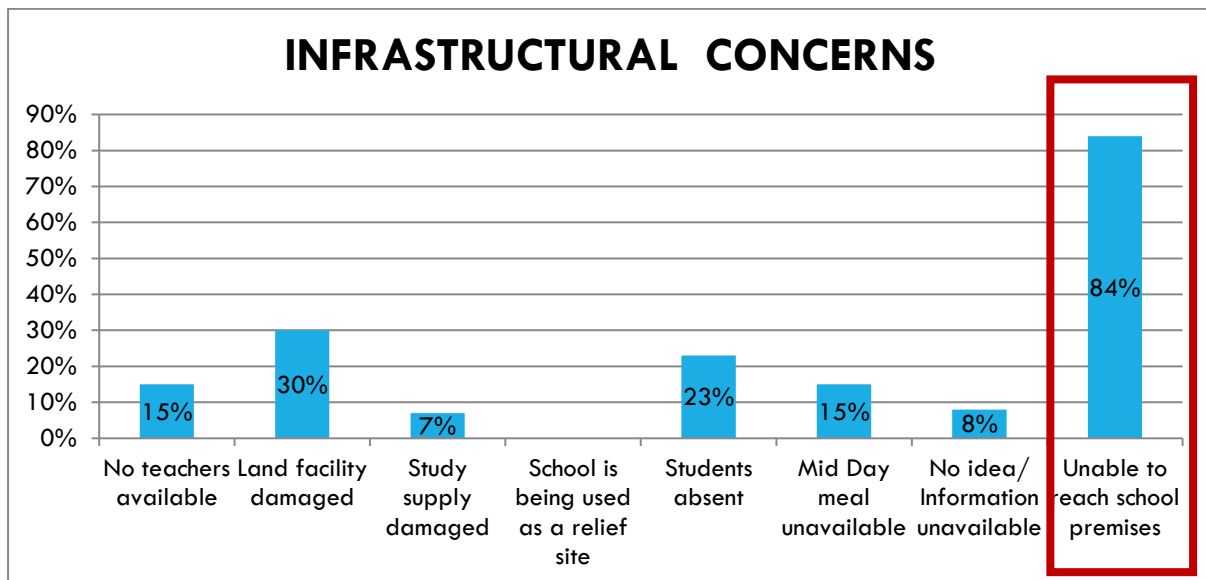
Residents of various villages reported a huge loss of electrical devices like mobiles, laptops etc., indicating compromised safety and security within households. Only 6% of respondents reported infrastructure losses, especially in school structures in Valla Raini village. Pagrasu and Phagti were among the other more impacted wards.

Negligible damages to houses were conveyed, as more than 80% residents reported no water entrance into the houses, only the villages were flooded. The water levels in the village were reported to be between 1ft-3ft, and water recession is expected within 3 days' time. Only 10% respondents experienced water levels above 3 ft height.

NOTE- Total Number of HH responses were 64.

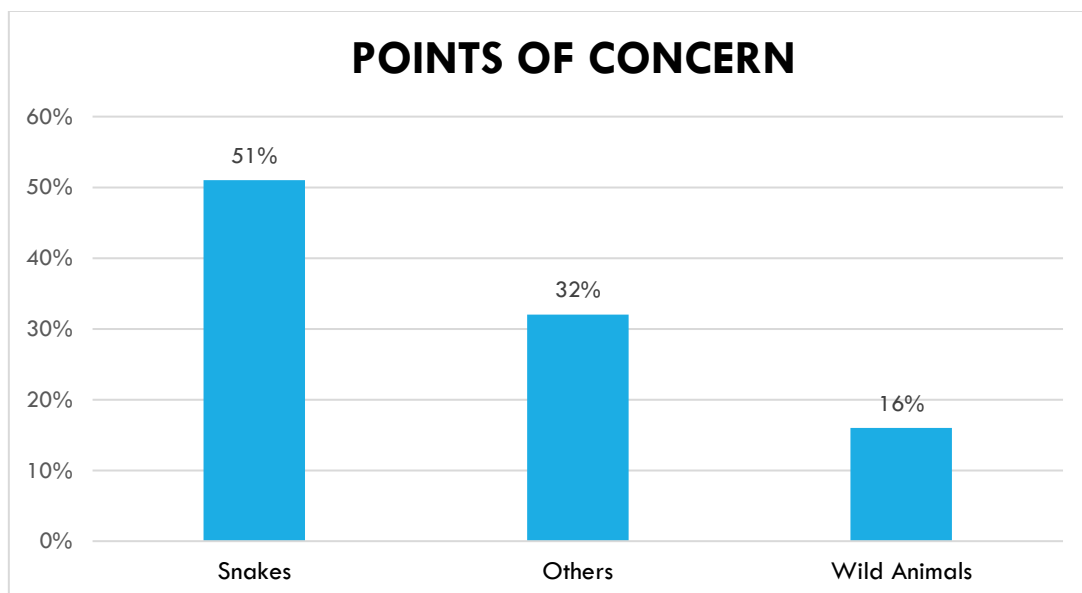
Major concerns for Shelter at village level

The responses revealed a major concern for the villagers [84%] to be lack of access to basic infrastructure such as schools due to blockage of roads with debris, mud etc.



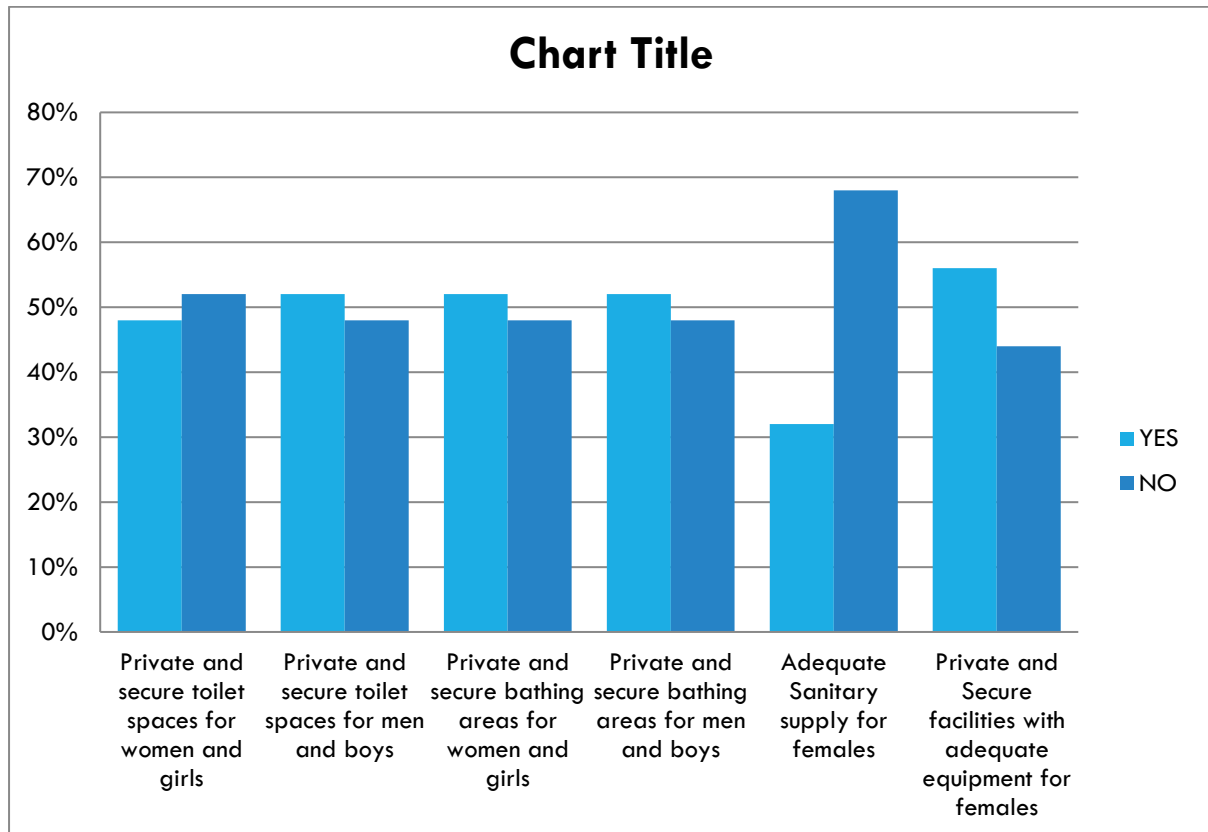
NOTE- Number of responses is 13 from villages.

Inference -Though a mere fraction of those affected required alternate shelter relief, this inconvenience created other concerns for the villagers. The risk was induced by external elements, majority of which was danger of snake bites. 32% of those without shelter were troubled by other factors, while some were afraid of attack by wild animals.



Inference - On relief shelter availability, only 25% amenities were reported as being available. Additionally, 45% informed the attainability of NFI- Non-Food Items for the needy.

In terms of shelter services, the larger impact appears to have been on security and privacy of individuals and families. Toilet and bathing facilities were heavily bargained as approximately 65% females and 50% males found little or no covered spaces adequate for these activities.



Recommendations

IMMEDIATE/ SHORT TERM:

- 1) Provision of finances and capacity building to equip affected populations to chart accessible routes for accessing basic amenities such as markets, schools etc.
- 2) Enhanced public drainage systems for automatic removal of debris and other interruptive elements.
- 3) Leverage the existing resources - such as academia, students, and trainees (from relevant fields/sector), under expert supervision for repair work and rehabilitation process for the mildly- partially affected structures.
- 4) Need for cheap, safe and mobile private spaces, provided by the government to cater to the needs of individuals on site.

- 5) Weatherproof and secure (from wild animals/ reptiles and insects, etc) relief structures adhering to all terrains, like the hilly terrain in the present case. Adaptable structures ensure sustainability and reusability of resources.
- 6) Psychosocial support for children and individuals with engaging activities can be provided.

MEDIUM TERM:

- 1) Standby resources for immediate shelter to affected populations must be available with the state(s).
- 2) Plan and spread awareness for leveraging existing structures in nearby villages, which were less affected by flood to relocate the affected populations during emergencies.
- 3) Plan drainage systems in accordance with the terrain of the site to automate overflowed water at all pressure and velocity levels.
- 4) Awareness programs for mid to long term support to rebuild resilient infrastructure- since village streets were more affected. Support should include options from provision of material and technical support to labour and cash.

LONG TERM:

1. Local level governance should consider dovetailing different government schemes and projects of non-government organisations for implementing the plans to reduce loss to the houses and infrastructures in their gram panchayats.
2. District Administration may assess the impact of the disasters on the shelters and ensure eligible affected households should receive house damage compensation and enlisted for the housing schemes.
3. District Administration may also monitor and supervise the repair and reconstruction activities to ensure disaster resilient construction.
4. House owners should coordinate with the members of village committee, PRI and government for proper assessment of their damaged-house and listing in the house-damage compensation.

HEALTH

Background

The Uttarakhand Chamoli disaster impacted access to holistic healthcare services post disaster as an essential service for the affected population segments during disasters and emergency situations especially several respondents stating facing water borne diseases as a result of the heavy flooding. Disasters are often accompanied by significant threats to the immediate and long-term physical health of affected communities. Health status can be affected by injury associated with the disaster; exposure to toxins and environmental contaminants; and exacerbation of pre-existing risk factors and clinical conditions due to lack of access to health care and social support resources, stress or disruption of continuity of care. What is clear is that there was a landslide or avalanche that blocked the river and when the natural dam broke because of the force of water, it brought the power of kilolitres of water mixed with moraine, rock and silt. The detrimental impact on damages has impacted the psychological and emotional well-being of households as well, especially with inhabitants losing their sources of livelihood and missing bodies can have a multi-layered health impact on communities. The survey has been carried out in the affected villages and districts to understand the intensity on the healthcare scenario with an impending issue of COVID-19 and emergency health aid to affected population segments during disasters and emergency situations has been analyzed.

Overall Finding and Analysis

1. Classification of Affected Population

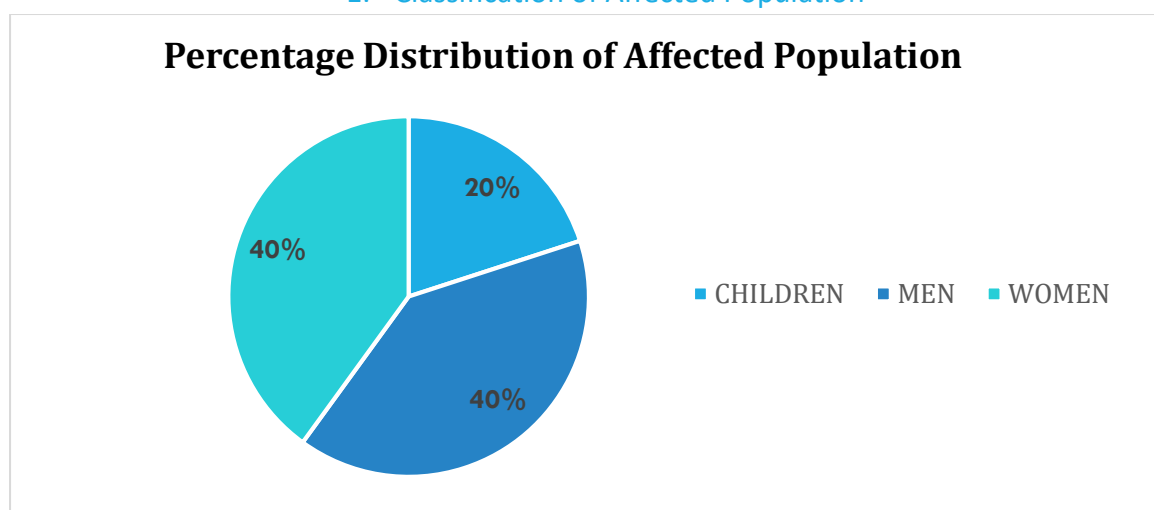


Figure 0.1: Percentage Distribution of Affected Population

Inference - As per the survey findings the total population reported as to be affected are 6478. Where Men and Women affected accountability is almost same which accounts for 40% of entire affected population where children occupy 20% of the affected population.

2. Number of affected individuals from villages surveyed

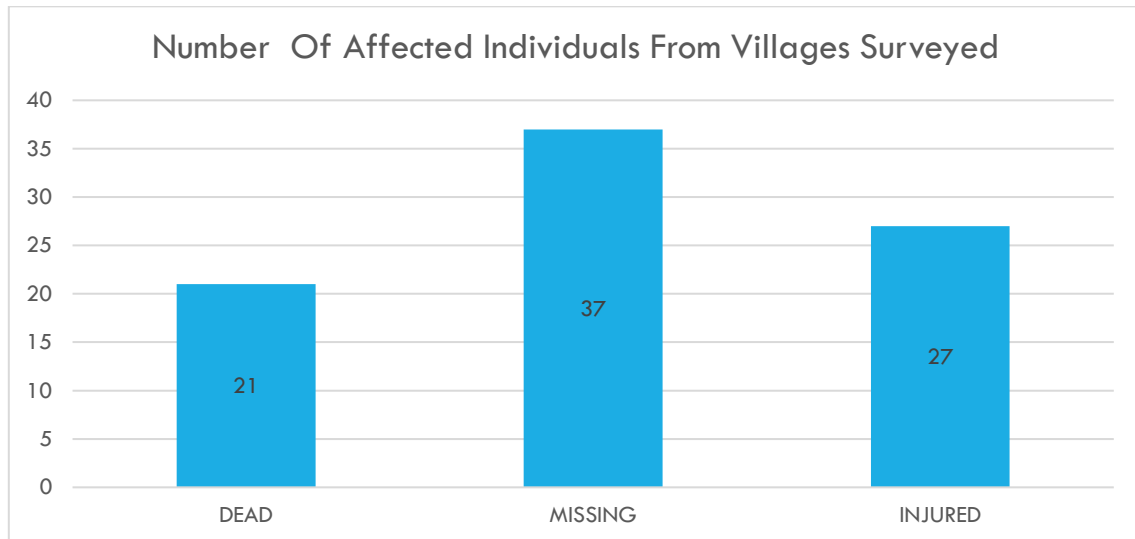


Figure 0.2: Number of people affected from the surveyed villages

Inference - Heavy damage to human life was reported from the survey. From the surveyed villages total 85 people were physically affected because of the tragic event that took place. As per the sample report, 21 deaths have been reported and 27 people have got injured due to this disaster. The data indicates that 37 people are still missing including those working at hydel power project sites as well as villagers nearby whose homes were washed away with the force of the raging waters out of which 23 are from Raini village only.

Note- 23 people missing reported from village Raini.

3. Damaged Physical Infrastructure

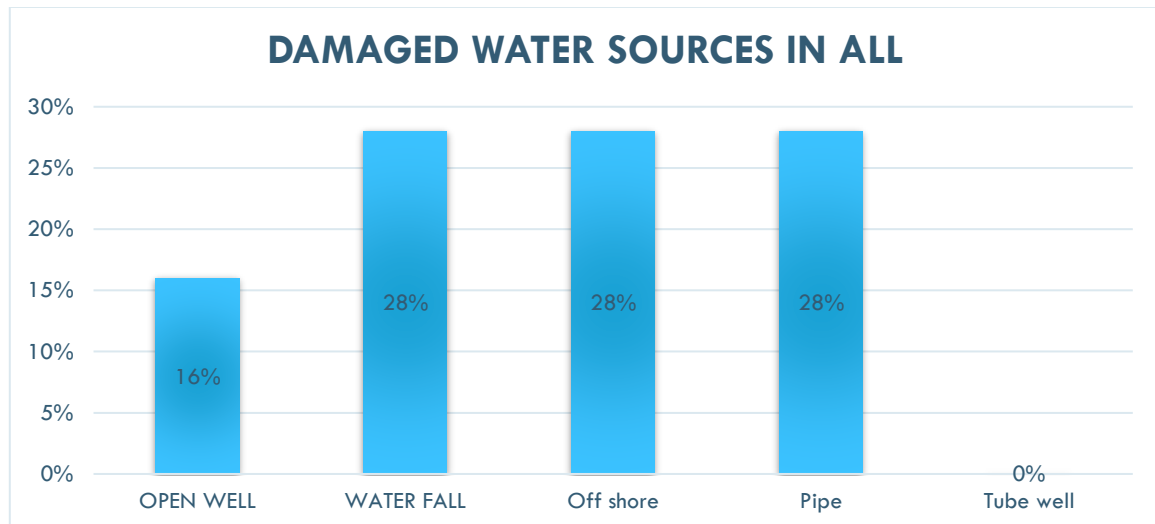


Figure 0.3: Percentage of Water sources damaged.

Inference - There has been a serious problem of damages in the water sources due to this destruction. From the survey analysis we could understand that 16% open wells have been damaged and major damage have been also reported on the Water fall, off shore and Pipeline, which goes up to 28% each. It has also damaged a part of under-construction hydropower project in the region. The impact of water supply not being adequately provided to the affected populations could lead to detrimental consequences with a high risk of water-borne diseases.

Elements of Concern

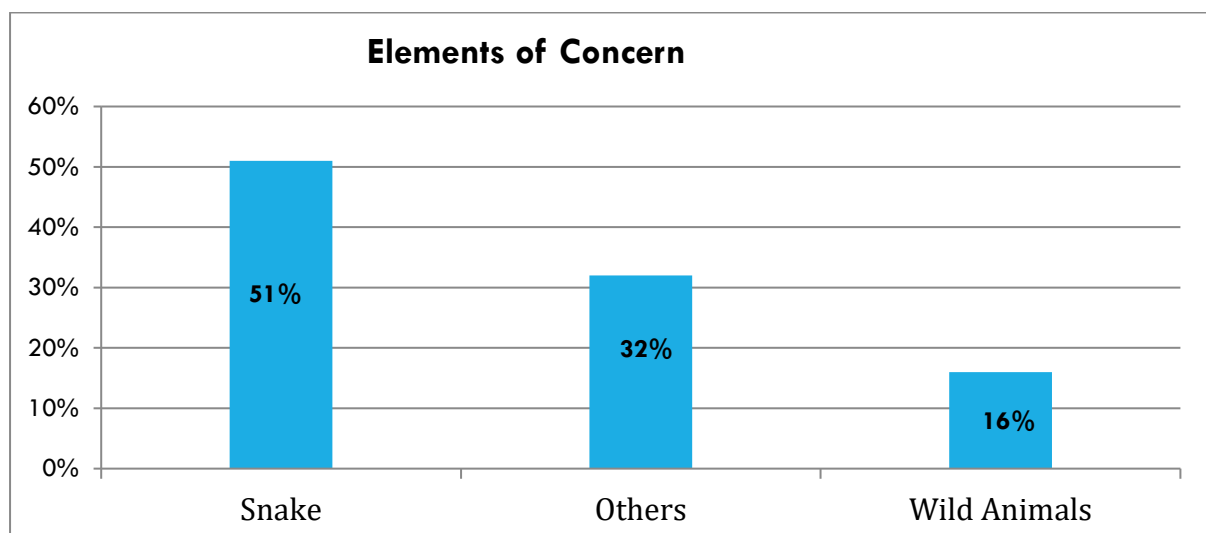


Figure 0.4: Overall risk elements that are of concern

Inference –The figure 2.5 indicates a serious cause of concern with snakes and other wild reptiles have been a direct result of the impending Uttarakhand Chamoli disaster that not

only polluted the water bodies but exposed a rise in snakes and wild animals in the surrounding regions and affected communities with close to 51%. From the survey analysis it can be inferred that 16% of wild animals are visible and exposed.

Health Facilities

The main reasons for non-functioning of health facilities

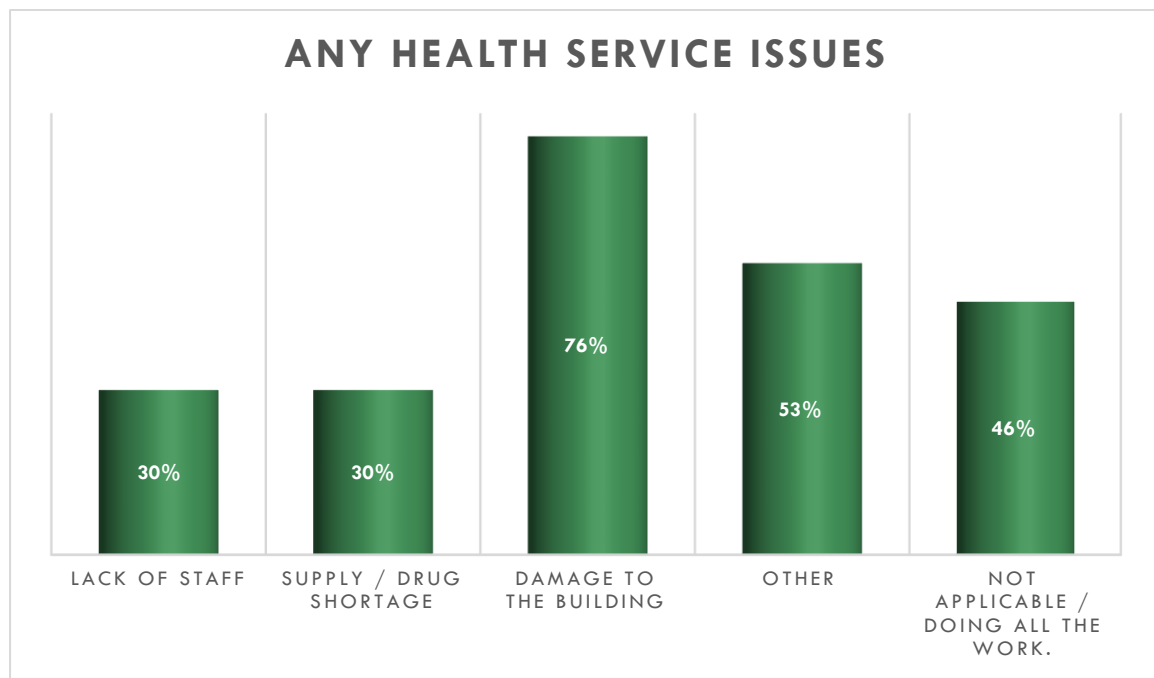


Figure 0.6: Overall Health Services Issues

Inference – The figure 2.6 indicates avenues and challenges related to the health services being made available especially with 76% reporting damages to building and 30% reporting a drug and supply shortage and 30% indicating a lack of staff which bears a relation to the health response efforts and overall impact on the holistic access to facilities such as medicines and adequate care during the time of emergency.

Key Damage and Loss to Health Infrastructure

The distribution of population suffering from health issues in villages is displayed in the figure below.

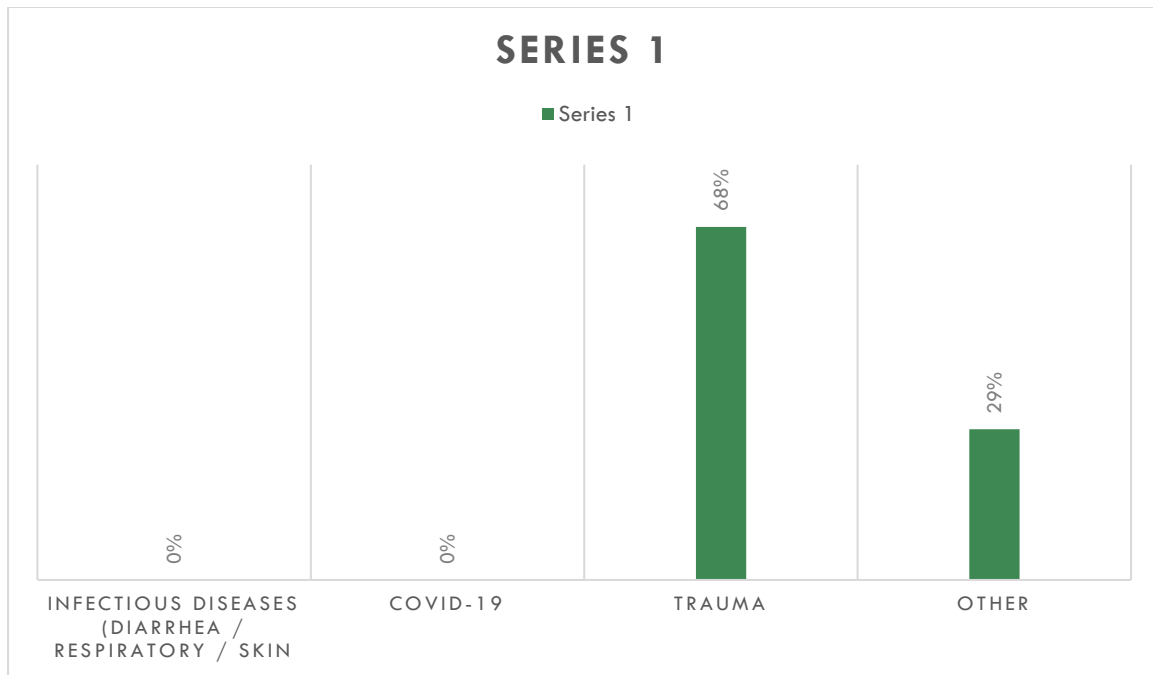


Figure 0.7: Overall Health Related Emerging Challenges

Inference – The figure 2.7 indicates that almost 68% of the affected populations have developed a long-term trauma as a result of the Uttarakhand Chamoli disaster. On the bright side, COVID & other Infectious diseases are not a threat but the psychological impact on the psyche of people due to loss of lives and visual imagery may have irked their psycho-social health. There is also an overwhelming segment of population 29% which has cited other issues and challenges related to health which do not point to any specific cause.

Nearby Health Facilities Damaged

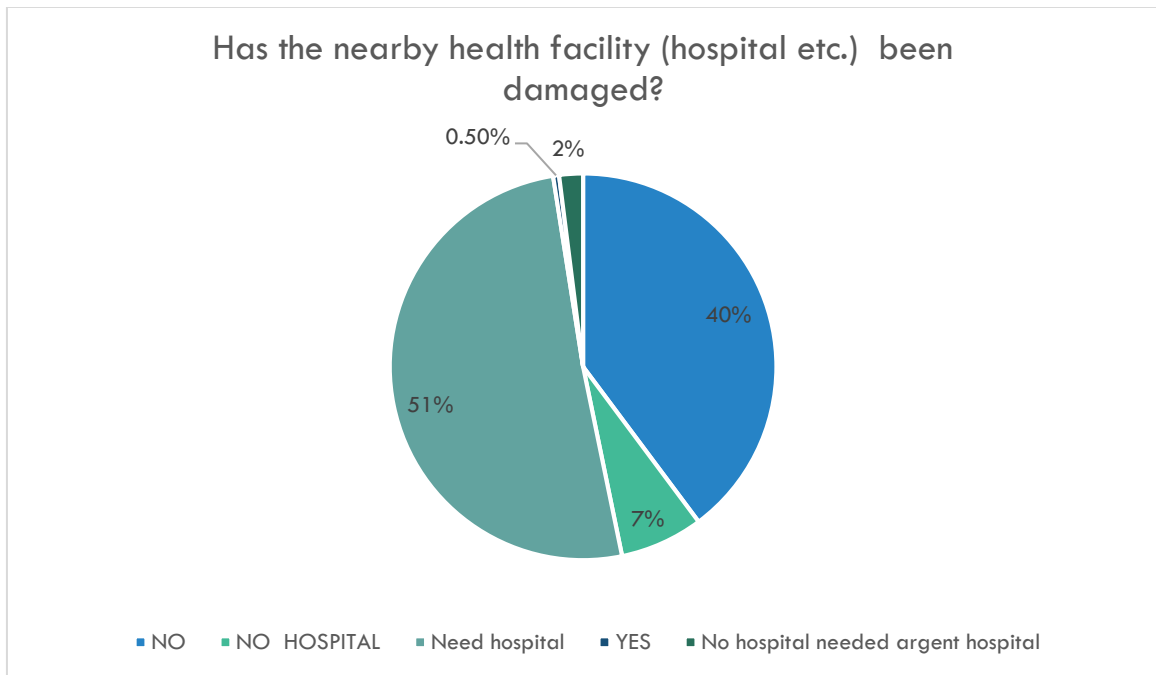


Figure 0.8: Health Infrastructures & Facilities Present Condition

Inference – The figure 2.8 lays out a startling necessity with 51% indicating need for a hospital at all which is an emergency and a short term recommendation especially since it is remote and a nearby facility must be constructed and made available at the earliest. 40% of the people surveyed indicate no hospital and need for an urgent hospital. Through the responses pouring in it can be concluded that access to hospitals is a critical and emerging need and the gaps in its provisions could certainly have detrimental consequences on the overall health and well-being of the people.

Recommendations

SHORT TERM –

1. Mechanisms related to health sector identified, which have gaps especially non-functional or partially damaged health care centres need to be upgraded or scaled up.
2. The local authorities should be given more responsibilities both before and after the disaster because they are closer to the people than the central government, and also can communicate better and understand better their specific needs.
3. Mental health problems especially post-traumatic stress disorder faced by the victims should get proper treatment; contingency plans should be made to manage psychiatric following the disasters.
4. Provision of high quality emergency medical care and treatment in emergencies, including sanitary measures and hygiene services for disaster situations.

5. Training and Capacity building, trainings can enhance capacities when delivered in conjunction with access to information, authority, institutions, structures, plans, resources and partnerships.
6. Public education through mass media (television, radio, and newspaper) and health educators in collaboration with others sectors.
7. Assessment of current needs and offers in training for disaster preparedness, mitigation and response in the health sector, in-service training of health personal (from prevention to response) with special focus on managerial issues.
8. Services of community health workers, Accredited Social Health Activists (ASHAs), who have been instrumental in addressing fundamental causes of vulnerability of women and children as well as in checking public health emergencies may be utilised.

LONG TERM -

1. Coordination within the health sector and with civil protection, civil defense, SDMA, transport department and other private agencies assisting in the mobilization, operational coordination and support to the health response.
2. Identifying roles of each coordinating departments and assigning specific roles and responsibilities.
3. Assessment of needs and active dissemination of this information through meetings and development of web sites.
4. Disasters do not respect national boundaries, so corporation and mutual aid are vital. Coordination must be developed and endorsed at all levels.
5. The person in charge of the disaster reduction unit at the ministry of health develop and maintain national policy and disaster preparedness plans and bring all stakeholders together, and encourage others to prepare for emergencies. The in charge should assess the health needs and activate established lines of responsibilities and make sure networks use them. Coordinate external assistance and manage donations and supplies.
6. Liaison with humanitarian organizations at national or international level and nongovernmental organizations.
7. The health sector needs to have strong relationships with the many actors who have a role to play in managing risks of emergencies to health. These include urban planners, civil engineers, operators of hazardous facilities, climate information providers, the media and emergency services. Effective coordination among many disciplines in the health community is also required, such as emergency medicine, disease surveillance, mental health, nutrition, water and sanitation, health information management and many more.

8. Governments, intergovernmental and nongovernmental organizations (NGOs) should take account of the diverse needs of populations, especially those with higher levels of vulnerability who should be included in participatory approaches to planning, design and delivery of services that affect them.
9. The provisions of services to disaster survivors are emergency shelter and settlement, emergency health, water and sanitation and tracing and restoring family links. The health sector with the other actors ensure how survivors are assisted with such services.
10. Strengthening the capacities of state disaster risk management governance systems and institutions at all levels mainly focusing on strengthening of public health system during the disaster.
11. Community based actions are at the frontline of protecting health during emergencies, because local actions prevent risks at the source, by avoiding exposure to local hazards.
12. A prepared, active and well-organized community can reduce risks and the impact of emergencies, and also many lives can be saved in the first hours after an emergency through community response before external help arrives for which community should be sensitized and can be provided with trainings and awareness on risk management.
13. Long term care and treatment of affected segments.
14. Effective mitigation planning can break the cycle of disaster damage, reconstruction, and repeated damage, which include risk assessment, capability assessment, mitigation strategy and plan maintenance procedure. Mitigation plans can be developed for the disaster affected region which can be adopted by communities with the primary purpose of identifying the long-term risk to life and property from hazard events.
15. The government during the Uttarakhand Chamoli disaster has initiated action speedily with immediate relief sent by rescue operations where people have been missing, especially with rescue operations and several numbers of deaths being reported.
16. The Village Health Sanitation and Nutrition Committees (VHSNCs) formed under the National Health Mission working under Gram Panchayat may get mainstreamed.

EDUCATION

Background

The disaster in Uttarakhand had a detrimental impact on education in several villages. The name of few villages covered while surveying includes TallaRaini, MallaRaini, Peng, Murandda, Juwwagwad, Subhai, Latta, Suki, Bhallagaon, Pagrasu, Surraithota, Tolma, Laungsegadi, Phagti, TapovanBhangyul, Ringi, Karcho, Dhak, Kundikhola, BadagaonandKarchireporting more than 1431 children. The classification or population diversity is shown as following.

The added burden of the rising number of the COVID 19 cases in the city and the debris accumulation in most areas disrupted school routes and inaccessibility to the schools causing loss in education days.

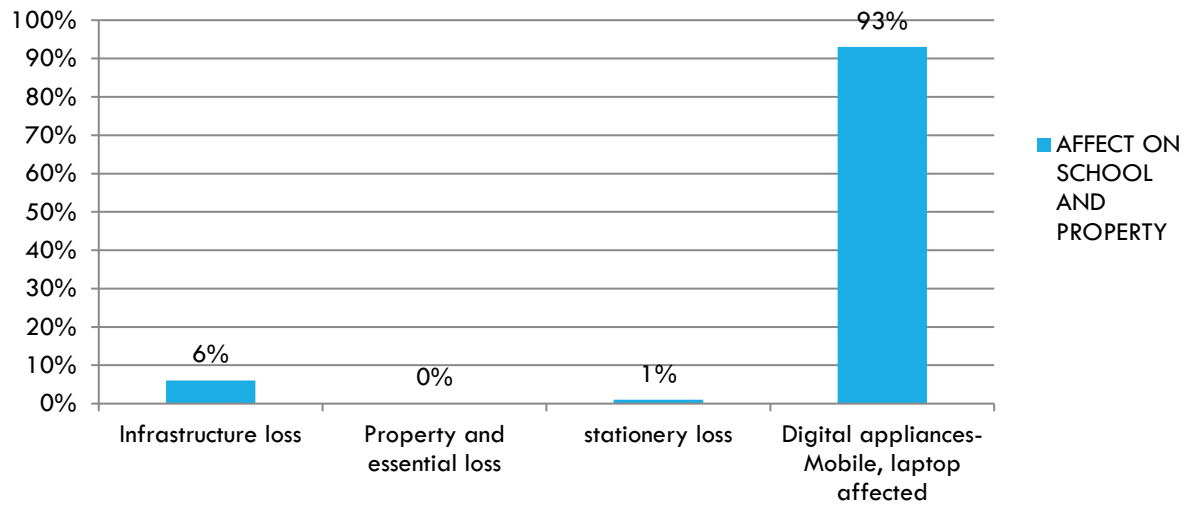
Schools serving as quarantine centres were not reported but even then a cleaning drive is essential before starting the schools if done. This is a multi-hazard and multi-risk situation for the children and their teachers. The above indicators are essential aspects to be addressed to establish safe and protective learning spaces and the environment in the post-disaster situation. The impact of this multi-disaster situation, increasing trauma and stress among children, and psychosocial support is critical.

Key Damages and Losses to the Education Infrastructure

Residents of various villages reported a huge loss of electrical devices like mobile, laptop etc causing hindrance in education provision especially the online mediums which were going on in view of COVID 19 safety norms.

Only 6% of respondents reported infrastructure losses to school structures and that too only in Valla Raini village. Very few reported any kind of losses stationery etc as based on Village level responses it was found that water was not entering the houses.

AFFECT ON SCHOOL AND PROPERTY



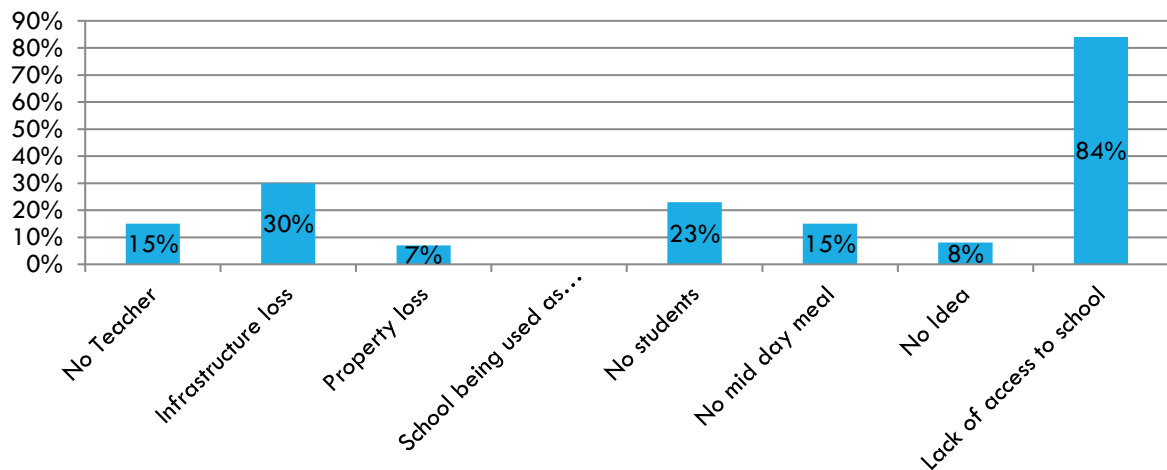
NOTE- Total Number of HH responses were 64.

Key concerns for education sector at village level

Based on the responses it came out that the major concern was lack of access [84%] to school due to blockage of roads with debris, mud etc but in same scenario more than 55% of respondents shared that they expect that all schools will reopen within span of 30 days.

15% of the responses stood for lack of availability of teachers and mid-day meal in local schools causing hindrance in education of the affected villages

EDUCATION CONCERNS



NOTE- Number of responses is 13 from various villages.

Recommendations

IMMEDIATE/ SHORT TERM:

- 1) Immediate creation and distribution of education kits for the continuation of education
- 2) Establishment of temporary educational centres/online classes wherein children can continue receiving education. Provision of electrical appliances such as mobiles, laptops for online education can be done.
- 3) Prompt disinfection of school buildings, cleaning up of debris, mid-day meals and necessary equipment in the covid-19 context is also required.
- 4) Psycho social support for children with interesting engaging activities can be done.

MEDIUM TERM:

- 1) Adequate steps undertaken by the School Board in collaboration with the Government to come up with a strategic plan to tackle the dual challenge of COVID and the floods.
- 2) Establishment of Child Centred Disaster Risk Reduction strategy in the context of school education
- 3) Research on impact, risk vulnerability of children specially in the education sector is highly recommended
- 4) Capacity building of teacher on the continuous risk communication and resilient education is recommended for future prospective.

LONG TERM

- 1) Implementation and practice of the comprehensive school safety policy
- 2) To have uninterrupted supply of water required for cleaning and other purposes and also provision of drinking water facilities in each school.
- 3) Provision of CASH based programs to avoid school drop outs due to livelihood specially during disaster.

PROTECTION

Background

According to the World Bank Social Protection and Labour Strategy (2012-2022), social protection refers to those programs and systems that enable individuals and societies to manage risk and volatility and protect them from poverty and destitution with the help of instruments that improve their equity, resilience and opportunity.¹

In the context of emergency, the most vulnerable among the survivors are children who are left without adult protection, single women which includes widows, those who are disabled and old people who are often deprived of the care of their families. Disaster situations, thus, increases protection concerns which are related to sexual assault, trafficking, and domestic violence; breakdown of law-and-order situation, access to basic services like food, water, sanitation, family separation; child trafficking; unequal access to assistance; discrimination in aid provision; forced return or relocation; loss of personal documentation; conflict and tension between two communities.

On 7th February, 2021, disaster struck Uttarakhand's Chamoli district. The sudden event triggered widespread panic and large-scale devastation in the high mountain areas. Thus, this section of the JNA focuses on identifying the impact and emerging needs of those who are socially more vulnerable. Villages that were surveyed in this assessment include Raini, Fagati, Loug, Tolama, Gvaad, Ballagaon, Dhak, Karcho, Karchi, Rainipalli, Rainiwalli, Kundilholra, Latta, Tapovan and Subhai.

Findings and Analysis

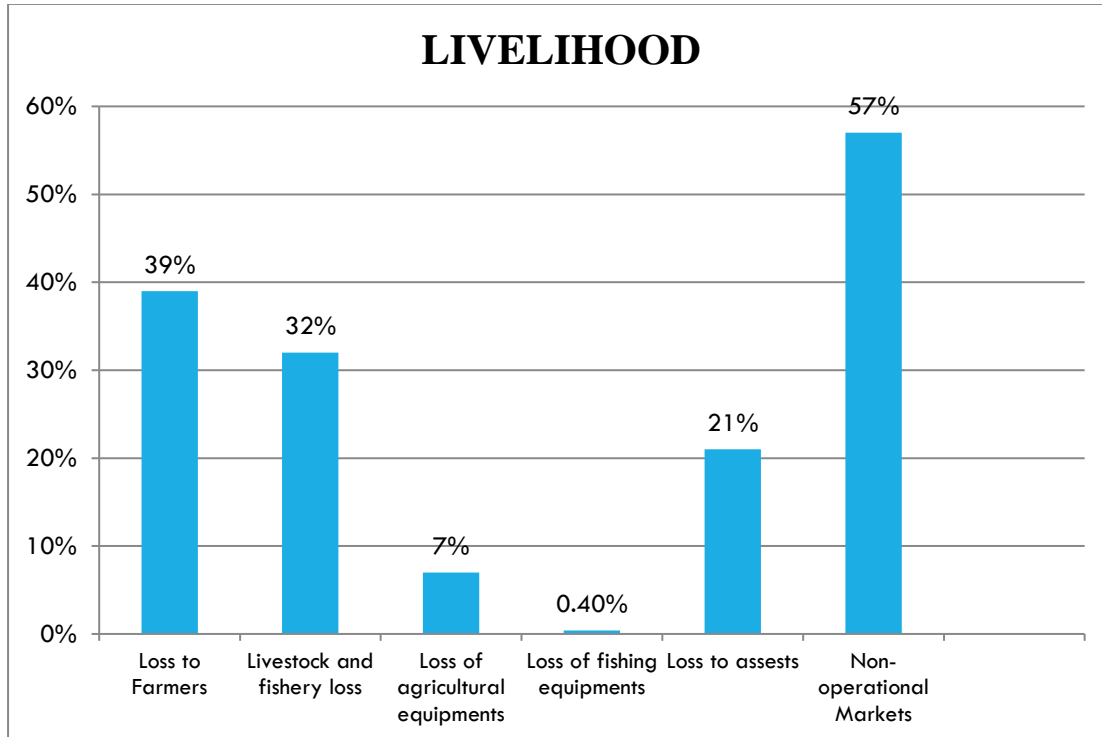
1. DAMAGE OR DISRUPTION OF INFRASTRUCTURE AND BASIC ESSENTIAL SERVICES

- Four respondents out of a total of 21 respondents have indicated that their houses are completely destroyed. While nine respondents have indicated that their houses are dangerous to live in and needs repairs.

¹World Bank Social Protection and Labour Strategy (2012-2022)
<https://www.gfdrr.org/sites/default/files/documents/SISRI%20Knowledge%20Note%20%20-%20Building%20Resilience%20through%20Social%20Protection.pdf>

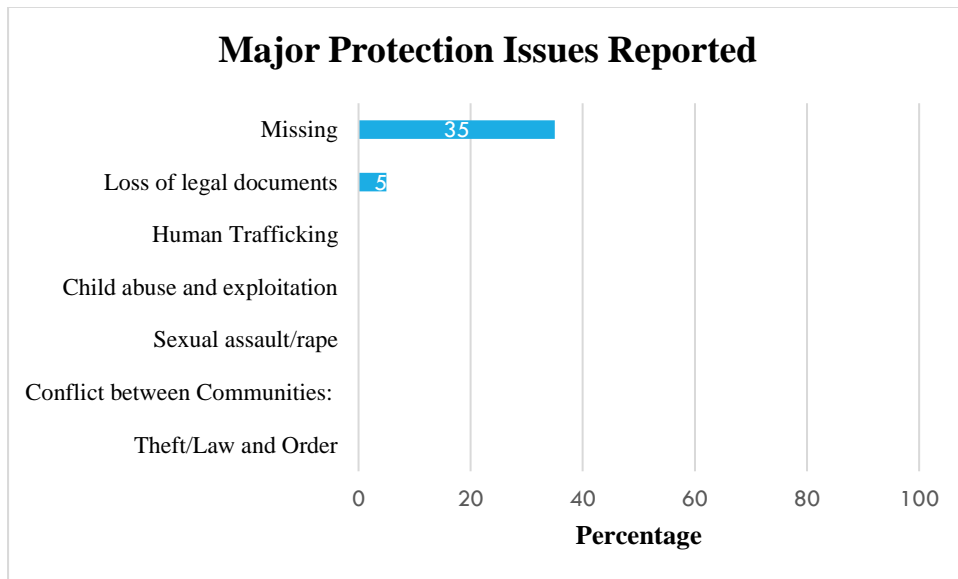
- Approximately 92% of the total respondents (12 out of 13) have indicated that they do not have access to electricity at night due to damaged systems.
- 10 percent of the villages (2 out of 20) have indicated that only some women have access to toilet facilities. These villages are Karcho and Raini. While the others have indicated that most of the women do have such access.
- Only one (Raini) out of the 20 villages have indicated that there is no private place for women to breastfeed their children.
- Seven out of 11 villages have indicated that PDS shops are not functioning in their area. These villages are Raini, Sigri, Tolma and Ballagaon.
- 11 out of the 20 villages have indicated that the local people are not able to access the markets in their areas.
- 55% (11 out of 20) of the villages surveyed have indicated that they require consultation and support (exceptions being Dhak, Rainipalli, Karcho, Karchi, Rainiwalli, KundiKhola).
- Only 35% (7 out of 20) of the villages surveyed have adequate sanitation material for women. These villages are part of Gavad, Fagti and Ballagaon and Latta.
- Approximately 34% of the total respondents (73 out of 217) have indicated that they require psycho-social support.

2. EFFECT ON LIVELIHOOD



The impact of any disaster on livelihood is necessary to ensure social protection because it defines a household's access to resources. In this survey we can see that 39% out of the total respondents (218) have reported that the farmers have suffered loss due to the disaster. 32% have reported there has been loss in terms of livestock and fishery. Another emerging issue is that 57% of the total respondents have indicated that the markets in their area are non-operational.

Major Protection Issues Reported



- **Theft/Law and Order:** No issues of theft or violation of law and order have been reported in the villages surveyed.
- **Conflict between Communities:** No cases of conflict have been reported between communities in all the villages that were surveyed.
- **Sexual Assault/Rape-** No cases of sexual assault have come up in the villages surveyed.
- **Child Abuse and Exploitation:** No cases of sexual assault have come up in the villages surveyed. Only one village (5%) i.e., Raini, has reported cases of unaccompanied children.
- **Human Trafficking:** No cases of human trafficking have been reported in the villages surveyed.
- **Loss of Legal Documents:** Only Raini out of all the villages surveyed has reported cases of loss of legal documents.
- **Missing:** 35% out of the total villages have reported cases of missing people. Gram panchayats such as Raini (20 people missing), Dhak (4 people missing), Rainipalli (1 person missing), Rainiwalli (2 people missing) and KundiKhola (3 people missing) have reported such cases.

Recommendations

1. SHORT TERM

- Women, girls and PwDs should have access to information related to support services for redressal of GBV, exploitation, abuse and harassment.

- Access to safe drinking water, sanitation facilities, menstrual health and hygiene products should be ensured especially for women, children, elderly and PWD.
- People who have lost legal documents should be identified and should be supported in getting the new ones.
- Identification and consultation with the children who are in need of care and protection.
- Reunifying of unaccompanied minor children who are separated or missing children from their parents or legal guardians in the aftermath of a disaster.
- All unaccompanied children should be enumerated and information should be shared with the Child Welfare Committee (CWC) for immediate action.

2. MID TERM

- Advocate with the local authorities to refresher training of the District Child Protection Unit, Women Help Desk, Helplines on the protection issues in a disaster context during COVID 19.
- Psychosocial and trauma counselling support to be extended at the community level through trained volunteers.
- Services for women, girls and children facing protection risks like short stay homes, legal aid, and medical help should be considered as essential services during and in the post disaster situation.
- The families of children in need of care and protection should be linked with social protection schemes.

3. LONG TERM

- Currently, there are no women SHGs active in any of the villages that are surveyed in this study. There is scope of creation of SHGs among women after the provision of specific trainings in order to provide livelihood security which will help in building capacity for future disaster situations.
- 45% of the 20 villages surveyed have reported that there is work related to MGNREGA going on in their village which involves women participation. Efforts should be directed towards not only increasing work through MGNREGA but also improve the participation of women in such work.
- Integrate prevention of sexual and gender-based violence against women and children into the disaster management plan.

- Support community mechanism to report incidences of sexual and gender-based violence and support children and women.
- The local ward level bodies should be strengthened to respond to the protection risk in a multiple hazard situation.
- Assessing/ mapping the departmental gaps in responding to the protection needs of women, children and PwDs in the context of multiple hazards during COVID-19.
- Review the existing government schemes specially related to women, children and girls and adapt it in line with COVID 19 situation reducing the protection risk.

WASH

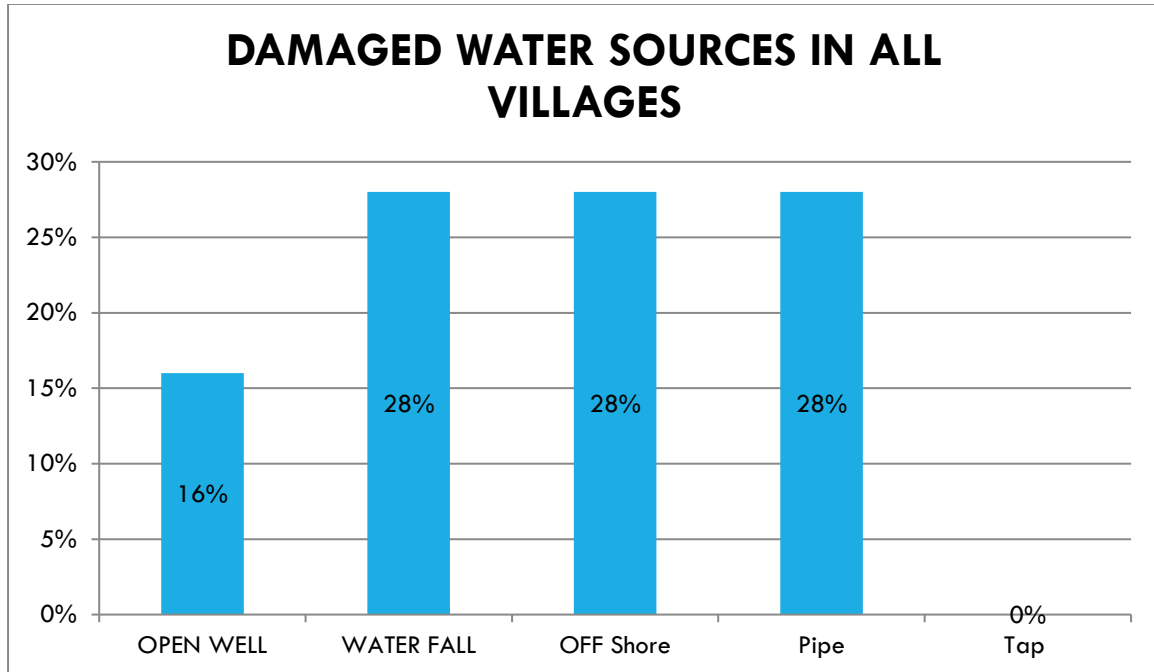
Background

The Chamoli disaster of Uttarakhand that took place on 7th February 2021 created a severe impact on the water supply patterns of the villages. As the villages lie on a hilly terrain water supply is a sensitive topic in the region. With the flooding of river, most villages close to the river were washed off while the villages which are a little away from the river saw some damage with respect to water supply. The major issue causing problem in the water supply is due to the damage of pipes that carry water from the river to the villages. As a result most villagers need to travel till the river to bring water for their daily needs. The sanitation facilities in the villages however are not disturbed much due to the decentralized sanitation facilities provided at household level. Storm water naturally flows down the through the natural course of slopes after the floods resides.

Villages Surveyed

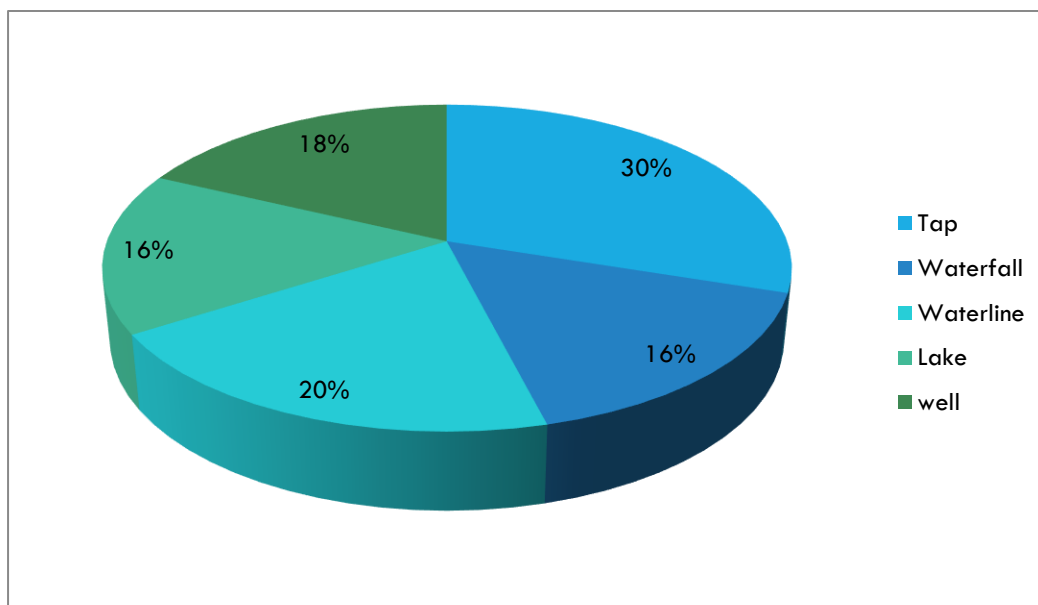
The region that was the most affected with the disaster was the block Joshimath of District Chamoli in Uttarakhand. The villages that are surveyed are Badgaon, Ballagaon, Dhak, Karchi, Karcho, KundiKhola, Letta, Raini, Subhai, Tapovan, Tolma, Bhanglagaon, and Bhalagaon

Damage to water supply at village level



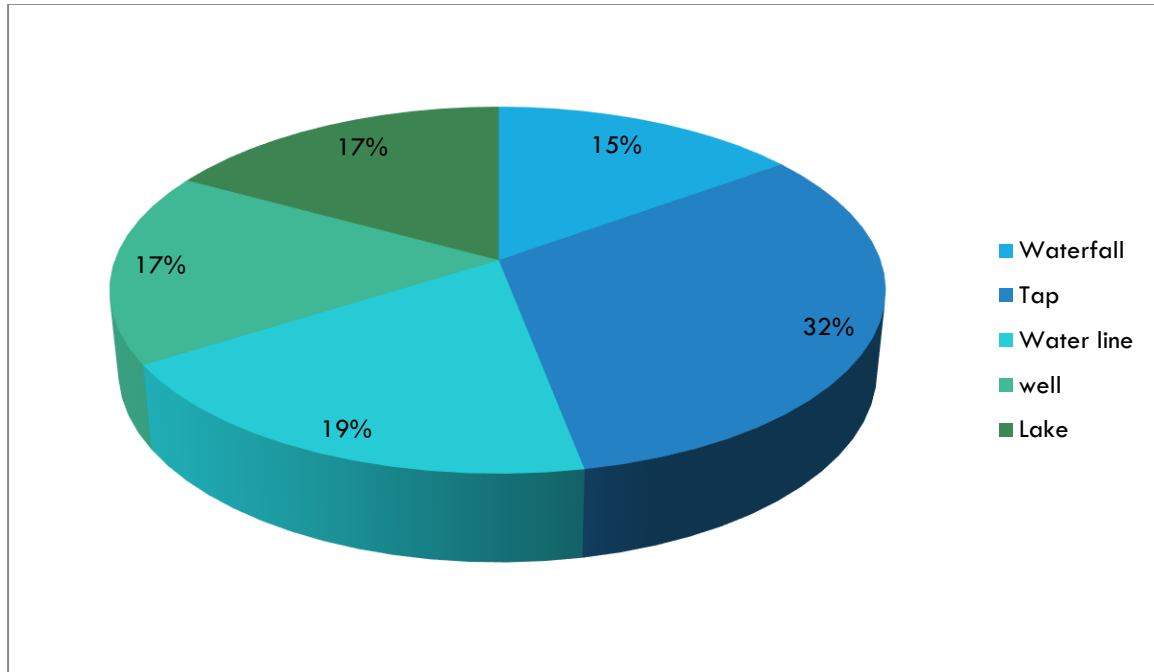
Assessment in the villages revealed that as a general trend the main source of water in the community, primarily taps, were unaffected and not damaged due to the glacial burst. A significant percentage of people (almost 16%) with wells as the main source of water were found to be damaged. Sources of water such as waterfall, off shore water and pipe have shown a greater degree of damage at 28% each.

Source of Water before disaster



Most households depended on tap water for obtaining water pre-disaster reported by 30% followed by waterline which is reported by 20% of the citizens. Wells were also a major source of water reported by 18% of the citizens about 16% each of households depended on waterfalls and lakes for water supply before the disaster.

Water supply post disaster

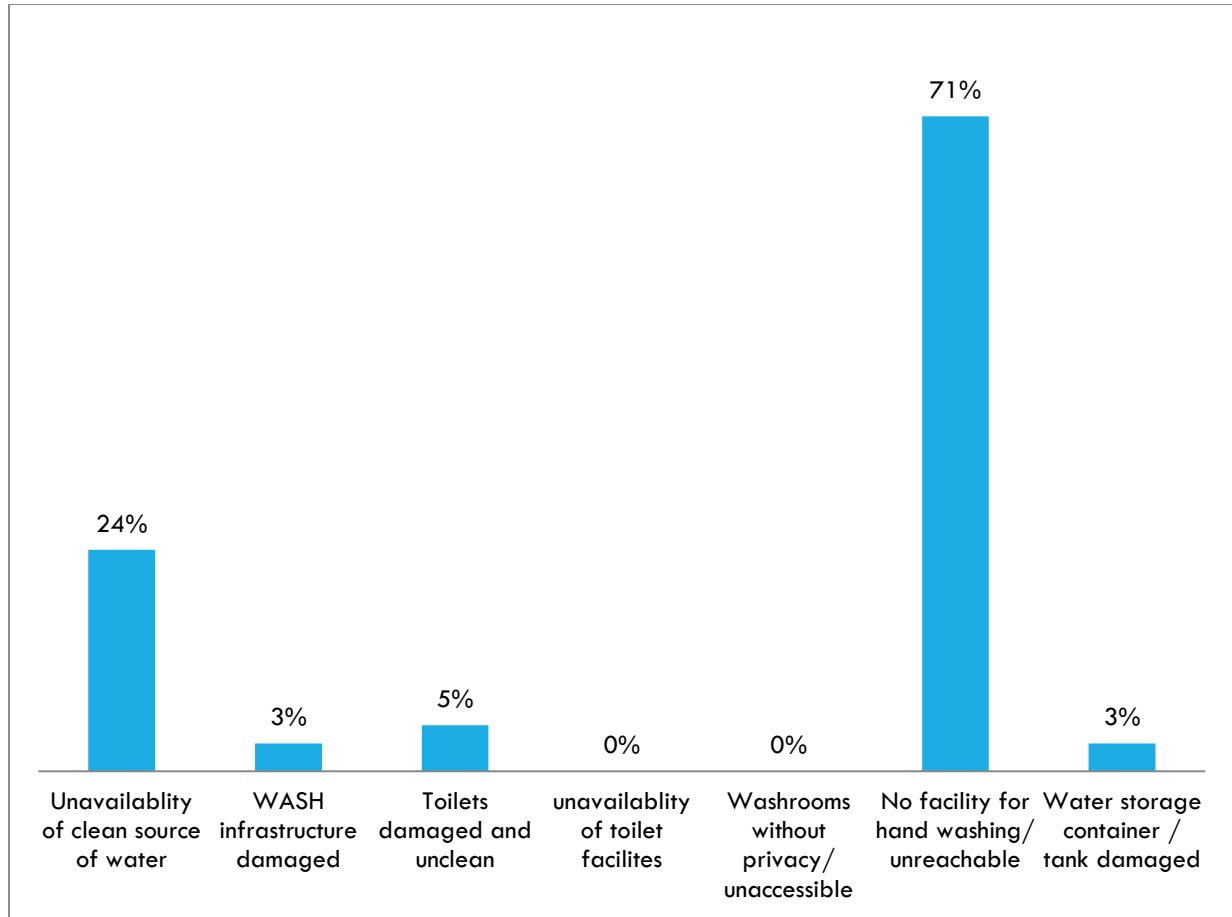


However the water source trends have shown a bit change post disaster as per the availability of clean sources of water. The no of households depending on tap source of water has changed from 30% - 32% due to the clean supply of water it provides. The residents who depended on waterfall as a source of water have decreased from 16%-15% due to the pollution of the source post disaster. A similar case is observed with water line where there is a change from 20% to 19% and for lakes the change has been from 18% to 17%. For wells there is an increase from % to 17% due to easy availability of water from the source.

Household level WASH analysis

The household level analysis gives a micro level picture of issues faced by each household as opposed to a macro level picture of overall issues at village level. The house hold level survey thus plays an important role in understanding the situation of the citizens of a community.

Major concerns related to WASH at household level



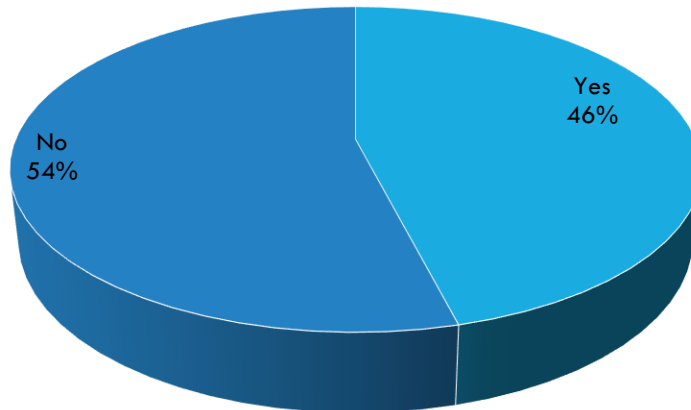
Unavailability of hand washing facility is the concern reported by most households and the major reason could be the damage caused to water resources from where these houses receive water. This is also reflected through the unavailability of clean source of water that is reported by 24% of residents. Damaged or unclean toilets is also a concern reported by 5% of the citizens while damaged WASH infrastructure and water storage container tank damaged was brought to notice by 3% citizens.

However, no household reported unavailability of toilet or bathing facility. Also, villages have been taking care to avoid the spread of COVID to certain extent by sanitizing panchayat house and encouraging everyone to wear masks.

Promoting hand wash practice within the community, water treatment at the HH level, repair and rehabilitation of the damaged toilets are some immediate recommendations.

Condition of Menstrual hygiene

Availability of Sanitary products for Menstruating women



It is clear from the chart above that more than 50% of the women surveyed did not have access to sanitary products which can create a huge impact on their health due to the unhygienic practices followed to manage menstruation in the absence of proper products. It is thus quite essential to incorporate these products in the emergency relief kits that would be provided.

Recommendations

Immediate / Short term

- Surveillance and water testing at the source to ensure quality and safety of water for consumption.
- Providing purified water for drinking to all the affected citizens and encouraging household level water purification
- Information dissemination to villagers for preserving sources of water such as open well to avoid damage in future.
- Providing households with safe drinking water and provision of hand washing facilities at relief camps for improving the hygiene conditions.
- Instant actions to be taken on repair of source of water for clean water supply to avoid spread of diseases.
- Providing aid for repairing WASH infrastructure and source of water supply.
- Immediate cleaning of open sources of water to avoid further pollution and ensure safety and quality.
- Create awareness on COVID-19 prevention, hygiene practices for using mask and sanitizers and on waste disposal practices.
- Rebuilding/restoring piped water supply systems with disaster resilient designs
- Access to menstrual hygiene items for women? (this depends on the assessment if women have access or not)

- Surveillance and monitoring of outbreak of water borne diseases such as diarrhoea

Medium Term

- Long term action plan of providing tap water and to all households to avoid disturbance in water supply post disasters in future. These water supply facilities also needs to be designed keeping the topography of the area and made sure these disaster resilient. A regular surveillance of the water supply facility needs to be ensured so that the damage are recorded at the earliest to avoid any contamination of water.
- Liaisoning with the appropriate line department for proper implementation of the Jal Shakti Mission
- Taking appropriate measures to clean water at source to insure safety and hygiene of drinking water.
- Ensuring every household has built toilets under the swachh bharat abhiyan. Liaise with the Govt and ensure the HH without toilets also have access to toilets.
- Provision of tap water to all houses as it insures safety for consumption and eminent water quality.
- Provision for preservation of open sources of water to avoid damage and pollution of these sources

Hygiene promotion activities in the community to ensure awareness among the community on water purification at the HH level and also are aware of any disease outbreak immediately after any disaster.

CONCLUSION

The joint needs assessment conducted in Uttarakhand enables organisations and the SDMA to recognize the immediate as well as long term needs to the affected population. It gives clarity on the kind of initiatives required in the state of Uttarakhand to mitigate losses faced by disasters in the future. This joint needs assessment report will also enable organisations to collaborate and coordinate their response and act on the identified immediate needs while avoiding a duplication of relief work. The report will also enable the SDMA to plan and undertake risk informed decisions.

List of Volunteers for JNA

S.N.	NAME OF THE VOLUNTEERS	EDUCATION QUALIFICATION	WORKING EXPERIENCE	Name of the Organization
1	Jitendra Kumar	B.Ed	4 years	JANMAITRI
2	Sunil Tewari	PG	10 years	JANMAITRI
3	Abhishek Panwar	Graduation	15 years	JANMAITRI
4	Pradeep Singh	PG	15 years	JANMAITRI
5	Priyanka Danu	PG	2 years	AGAAS
6	Jaideep Krishna	Graduate	2 years	AGAAS
7	Sachin Kumar	12 TH	23 years	AGAAS
8	Narendra Mulai	MBA	Intern	AGAAS
9	Pankaj	PG	12 Years	SEAD
10	Hema Bisht	Post Graduate	3 years	SEAD
11	Kalawati	Graduate	5 years	JANDESH
12	Laxman Singh Negi	Post Graduate	30 years	JANDESH
13	Hema	Graduate	8 years	JANDESH
14	Rajendra Rawat	Graduate	4 years	JANDESH
15	Virendra Vashisht	PG	20 Years	CASA**