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Research Paper / Article / Review

Impacts of Heavy Rain Monsoon 2023 in Himachal Pradesh

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Abstract: Heavy rainfall in the region has led to havoc with triggering landslides, causing power disruptions, road blockages, and damage to bridges. Since the monsoon's onset on June 24 until July 30, the state has witnessed 187 fatalities, with 34 people reported missing and 215 others injured, according to the Himachal Pradesh State Disaster Management Authority. The districts of Solan, Shimla, Kinnaur, Sirmour, Kullu, Mandi, Kangra, and Chamba have been severely affected by heavy and incessant rains, leading to extensive damage to roads, bridges, and culverts. The adverse weather conditions have also led to extensive damage to properties, with 845 houses completely damaged and 7,161 houses partially damaged. Additionally, 241 shops and 2,218 cow sheds have been affected by the rain and floods. The economic toll of the ongoing disasters has been estimated at 5,620.22 crore rupees, reflecting the widespread devastation in the state. In this research paper analyze the human/cattle loss, massive damages to public and private properties occurred of Himachal Pradesh in Monsoon 2023.

Keywords: lost, Injured, Missing, Extensive, Damaged and Devastation.

1. INTRODUCTION:

Heavy rainfall in the region has led to havoc with triggering landslides, causing power disruptions, road blockages, and damage to bridges. Since the monsoon's onset on June 24 until July 30, the state has witnessed 187 fatalities, with 34 people reported missing and 215 others injured, according to the Himachal Pradesh State Disaster Management Authority. The districts of Solan, Shimla, Kinnaur, Sirmour, Kullu, Mandi, Kangra, and Chamba have been severely affected by heavy and incessant rains, leading to extensive damage to roads, bridges, and culverts. The adverse weather conditions have also led to extensive damage to properties, with 845 houses completely damaged and 7,161 houses partially damaged. Additionally, 241 shops and 2,218 cow sheds have been affected by the rain and floods.

The economic toll of the ongoing disasters has been estimated at 5,620.22 crore rupees, reflecting the widespread devastation in the state.

A total of 5480 landslides and 83 flash floods have been recorded, leading to the closure of more than 650 roads, including three national highways. The National Highway from Dharamshala to Mcleodganj has been severely damaged in multiple locations, as reported by news agency ANI. The impact on the tourism sector during this normally lean season has been significant. Hotel occupancy rates have plummeted, leading to private hotels offering substantial discounts to attract guests. The Himachal Pradesh Tourism Development Corporation has announced a 50 percent discount on room rents until September 15 to support the struggling industry. Apart from the human casualties and infrastructure damage, the natural disasters have also impacted the livestock in the region. Nearly 400 sheep were reported dead due to extreme cold in the high-altitude Pin Valley, while 1,200 sheep were successfully rescued in Lahaul and Spiti districts, which experienced heavy snowfall.

2. CURRENT SITUATION SCENARIO : MAJOR LANDSLIDES

As per Governments Report, a large number of landslides were recorded because of heavy rainfall, cloudburst and flash floods during this season. In addition to the below data, a large number of medium and small landslides also took place in various parts of the State which resulted in huge loss to public and private properties. District wise detail is as under.

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TABLE8: 1.1 DISTRICT WISE LANDSLIDE DATA, 2023

S.No.	Name of District	Total
1.	Bilaspur	03
2.	Chamba	241
3.	Kangra	02
4.	Kinnaur	257
5.	Kinnaur	2600
6.	Lahul & Spiti	13
7.	Mandi	203
8.	Shimla	1960
9.	Solan	184
10.	Sirmaur	17
	Total	5480

Source: Received from State Emergency Operation Centre, Himachal Pradesh

CLOUDBRUST RECORDED

During this monsoon season a number of cloudbursts were recorded. A total 14 numbers of Cloudburst were recorded which are as under:

TABLE1.2 : DISTRICT WISE CLOUDBURST DATA , 2023

S. No.	Name of District	Total
1,	Shimla	01
2.	Kullu	12
3.	Solan	01
	Total	14

Source: Received from District Control Rooms

FLASH FLOODS RECORDED

During this monsoon season a number of flash floods were recorded. A total of 83 numbers of flash flood incidents were recorded which are as under:-

TABLE 1.3: DISTRICT WISE FLASH FLOOD DATA

S. No.	Name of District	Total
1.	Bilaspur	01
2.	Chamba	04
3.	Hamirpur	01
4.	Kangra	25
5.	Kinnour	01
6.	Kullu	20
7.	Lahual Spiti	12
8.	Mandi	10
9.	Shimla	05
10.	Sirmaur	03
11.	Una	01
	Total	83

Source: Received from District Control Rooms

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3. THE CATEGORY WISE LOSSES /DAMAGES AS OF 15TH JULY 2023:

3.1. Human lives lost

During this monsoon season seventy people lost their lives due to flash floods, landslides & fire. Ex-gratia amount of Rs 2.80 crores has been assessed for these human losses as per the prescribed relief norms (Rs.4.00 Lakh per deceased person). In addition, fortyone people died due to various other reasons owing to heavy rainfall and disasters causing these deaths have been notified as State specific disaster. The ex- gratia for these deaths as per prescribed norms (4 lakhs per deseased) is being released by the state government under SDRF. In addition, 12 people are missing and 121 people are injured. Total loss on this account has been assessed to the tune of Rs. 4.44 Crore.

3.2. Animal Husbandry

Total 921 animals including sheep, goats, cows, horses and buffaloes, died in major incidents of flash floods across district Shimla. The monetary loss on this account has been assessed to Rs 53.50 lakhs. Other infrastructure related to animal husbandry suffered a loss of Rs. 69.95 lakhs. In this season, the total of this sector loss has been assessed to Rs.1.23 Crore.

3.3. Structures damaged

Due to the current disaster, a number of houses and others assets suffered moderate to severe damages. The details are as under:-

- Fully damaged Kaccha and Pucca houses 845
- Partially damaged Kaccha & Pucca houses 7161
- Cowshed, gharats, shops and laborsheds 2218
- Shops 241

Total - 10465

Loss on this account has been assessed to the tune of Rs. 169.33 Cr.

3.4. Damage to roads

Due to heavy incessant rains during the monsoon, huge damages have been caused to the roads and infrastructure across the state. Many districts especially Solan, Shimla, Kinnaur, Sirmour, Kullu, Mandi, Kangra and Chamba were the worst effected which received huge magnitude of rainfall resulting in extensive damages to roads, bridges and culverts. Due to excessive rains and land slides, large stretches of roads were washed away. The culverts got blocked and a few washed away due to sudden and large inflow of rainy water carrying slush and big boulders. Thousands of retaining walls along the roads either suffered extensive damage or got completely washed away. Land slides blocked the cross-drainages and road side drains causing diversion of water flow. The Department has assessed the cost of restoration of roads and bridges to Rs. 1261.90 crore.

3.5. Damage to Irrigation and water supply schemes

The Irrigation & Public Health Department is responsible for maintaining a significant number of water supply, irrigation, urban, and sewerage schemes in Himachal Pradesh, totaling 9526, 2669, 97, and 33, respectively. However, heavy rainfall and landslides caused extensive damage to the department's infrastructure, resulting in a monetary loss estimated at Rs. 1411.78 Crore. Immediate repair and cleaning of pumping machinery and desilting of pump houses are required to restore drinking water supplies. The monetary loss on account of these damages has been assessed to the tune of Rs. 1411.78 Crore

3.6. Damage to Agriculture Crops

During this monsoon period the percent departure of rainfall as per reports of metrological center Shimla is 93%. About 20% of area is sown in the month of April-May whereas 80% of area is sown in the month of June which is a peak Kharif sowing period. Due to normal rains in most parts of the state, the sowing could almost be done on time. However, during the month of July, 2023, there was heavy rainfall in most parts of the state and standing kharif crops particularly maize & vegetables were badly affected and agricultural land was also washed away. As per the departmental assessment, total area of 28495 hectares was damaged and 1069.05 hectare of land was washed away. The total damage to crops and agricultural land has been assessed to Rs. 83.03 crore and 5.02 crore respectively.

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3.7. Damage to Horticulture Crops:

Horticulture plays a significant role in the state's economic development, contributing around Rs 5000 crore to its economy. However, the current heavy rainfall has caused significant damage to fruit orchards due to landslides and other factors. The excessive rain may lead to diseases in fruit plants, resulting in significantly reduced production. The size and quality of developing fruits are also adversely affected by the torrential rains. Additionally, damages to roads have disrupted transportation and marketing of the fruit produce. So far, the heavy monsoon has caused losses of around Rs. 75.57 crores to the fruit crops, and further losses are expected due to low production associated with the heavy rains.

3.8. Damage to Electricity Infrastructure:

During the monsoon in the State, heavy damages have been reported to the electricity supply infrastructure. Many electric poles, transformers, and other assets of HPSEB have suffered huge damages which have been assessed to the tune of Rs 1382.56 crores.

3.9. Education:

During the current disaster 11 buildings of government primary Schools and 8 buildings of government middle Schools were damaged. Many other have suffered minor damages. The total loss on this account has been assessed to Rs 53 lakhs.

3.10. Urban Development:

In this monsoon season there have been significant damages to the infrastructure of the Urban Development department. The total loss on this account has been assessed to Rs 84.40 Crore.

3.11. Rural Development:

A lot of infrastructure like panchayat ghars, Mahila Mandal Bhawans, Community Centers etc. of the rural development department has sustained heavy damages during the current disaster. The total loss on this account has been assessed to Rs 21.73 Crore.

3.12. Technical Education:

During the current disaster 14 numbers of Govt. ITI & Polytechnic buildings were damaged. The total loss on this account has been assessed as Rs. 4.85 Crore.

3.13. Fisheries:

During the current disaster, loss to the tune of Rs. 13.91 crores has been assessed on account of damages to fisheries sector in districts of Kullu, Chamba, Mandi, Solan, Sirmaur & Una.

As of 30th July 2023, the Cumulative loss is recorded as Rs. 5500 Crore.

4. POST- DISASTER SITUATION IN HIMACHAL PRADESH - MONSOON SEASON 2023

- During the initial natural crisis and situation, close to 60,000 tourists had gotten stuck in the state of Himachal Pradesh with successful evacuation by the NDRF and state authorities.
- 91 people lost their lives in Himachal Pradesh from June 24 to July 13. 34 deaths happened due to landslides, cloudbust, and flash floods as per government data.
- In addition, the state of Himachal Pradesh is grappling with the closure of over 1000 roads and the damage of more than 5000 water supply schemes. The IMD had forecasted heavy rainfall for Himachal Pradesh, from July 14 and lasting for five days.
- The Bangala Basti, Bihuli Gaon, Mandi had 12 and 10 fully damaged households wherein the foundations of the households were not present. An elderly woman lost her life due to trauma. In addition, several people evacuated to temporary camps.
- At Raghunath Padar, Mandi there have been 15 damaged homes and 25 people who are in need and lacking basic facilities and supplies.
- In Donga Basti, Badanu Gaon, Mandi 6 out of 9 families are in dire need wherein no housing facilities remain, sanitation facilities have been completely washed out. At the time of the rescue, people were 8-10 FT under the ground and 2 FT in the market side. There were 15 damaged houses with 250+ homes suffering major housing damages

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including shops getting damaged. The state government transferred 1 lakh for owners of houses/shops and 50k for rented ones.

VILLAGE-LEVEL PRIMARY ASSESSMENT

In the last 3 weeks, various organizations have been seeking ground-level information on the emerging needs in Himachal Pradesh to plan effective relief and response interventions. Recognizing the importance of comprehensive information, Sphere India Team and HCL Foundation embarked on a one-week mission to Himachal Pradesh, focusing on three major affected districts: Mandi, Kullu, and Shimla. During their visit, the team visited the impacted regions and interacted with the affected communities to gain a deeper understanding of the devastating impact of the monsoon-induced landslides and floods. Village level assessment from the field visits are shared below:

BANGALA BASTI, BIHULI GAON, MANDI

The situation in Bangala Basti, Bihuli Gaon, Mandi remains challenging with 12 houses fully washed away and 10 others damaged due to recent disasters. The poorly constructed houses with weak foundations and lack of documentation have resulted in people seeking refuge in camps. Tragically, one elderly woman has lost her life due to trauma. Immediate needs are being addressed, but the focus now lies on long-term recovery and building back a more resilient community. Efforts are underway to provide sustainable housing and support to the affected population.

RAGHUNATH PADAR, MANDI: In Raghunath Padar, Mandi, 15 houses have been affected, leaving 25 people in need of assistance. The scale of this disaster surpasses the previous incident in 1995. While NGOs have provided sufficient supplies, the damage is primarily to building structures and household items. Urgent requirements include mud/silt removal, rebuilding damaged houses, and replacing essential items like utensils, clothes, and beds. However, the lack of coordination between organizations and authorities has led to duplication of response efforts, potentially hindering an effective and streamlined recovery process.

DONGA BASTI, BADANU GAON, MANDI: The current situation in Donga Basti, Badanu Gaon, Mandi is critical, as 6 out of 9 families are in dire need of assistance. The disaster has caused extensive damage, with 1 Mosque, 9 cowsheds, 2 kitchens, 4 washrooms, and 4 houses completely destroyed, while 2 houses are partially damaged. The affected families urgently require essential items like clothes,

blankets, and utensils, along with support for their livestock to recover and rebuild their lives. Immediate aid and support are crucial to alleviate the distress and help the community recover from this devastating event.

PANDOH, MANDI: Pandoh, Mandi, a highly vulnerable location, faced a significant flood event with an 8-10ft rise from the ground and a 2ft rise in the market side. Although people were evacuated in time, the impact was substantial, with 15 houses completely damaged and the entire village, comprising 250+ houses and shops, affected. The government provided financial assistance of 1 lakh for house/shop owners and 50k for renters. Moving forward, urgent advocacy with the Bhakra Beas Management Board is essential to implement safety measures and initiatives for the welfare of the community and prevent further disasters.

5. SECTORAL IMPACT SHELTER AND RECOVERY

At Donga Basti, Badanu Gaon, Mandoh Mandi there is dire need of shelter assistance. The areas have suffered significant damage to houses, with houses being completely damaged and a few being partially damaged. Immediate support is required for rebuilding and repairing the damaged houses. Additionally, cowsheds, household structures require reconstruction with 250+ homes being fully damaged and in dire need of shelter assistance. Removal of mud and silt from houses is essential, in addition advocacy with the Bhakra Beas Management Board is crucial to implement safety measures and initiatives to safeguard the community from future floods.

HEALTH & HYGIENE

Access to healthcare services is crucial for the affected families. Medical support and hygiene kits are needed to prevent health issues and maintain hygiene standards in the aftermath of the disaster. Special attention should be given to vulnerable groups, including women and children. With damage to building structures and household items, the health and hygiene situation in the area requires immediate attention.

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LIVELIHOOD SUPPORT

Livelihood support is needed for the affected families, as cowsheds and shops being damaged, several families have suffered loss for source of income support. Livelihood opportunities would provide resilience for families and in addition, infrastructure could help regain financial security.

ANIMAL AND LIVESTOCK SUPPORT

The heavy rainfall and landslide have severely affected the livelihoods of farmers and livestock rearers, resulting in loss of animals, damage to grazing lands, and disruption of animal husbandry practices. Animal feed and veterinary assistance are critical requirements to ensure the well-being of surviving livestock and prevent further loss. Additionally, several cowsheds have been damaged

WASH (WATER, SANITATION & HYGIENE)

Access to clean water, proper sanitation facilities, and hygiene promotion are critical in the affected areas. Supplying clean water, constructing washrooms, and distributing hygiene kits are necessary for the well-being of the community. Cleaning and restoring water sources, as well as providing sanitation facilities, are essential for the affected families to maintain hygiene and prevent waterborne diseases. Coordination among NGOs and government authorities is vital to avoid duplication of response efforts.

Meeting with State Disaster Management Authority, Himachal Pradesh

During the meeting at SDMA, HP with Mr. Praveen Bhardwaj, DM Specialist, and Mr. Nitin Sharma, CB Officer, key discussions centered around the state's total loss of 5500 crore due to the monsoon, with a memorandum of losses to be submitted to the Government of India by 31st July. Improving Early Warning Systems (EWS) capacity and adopting advanced technologies were highlighted, along with the need for more effective on-ground precautionary actions following timely alerts. The focus is now on recovery efforts and building back better, with sustainable and resilient strategies to restore livelihoods, infrastructure, and essential services. Conducting a Post-Disaster Needs Assessment (PDNA) is crucial, and Sphere India was asked to propose a plan of action to collaborate with SDMA, building upon the previous year's request for technical support. Strengthening coordination among different departments and stakeholders in the state is also vital for a more effective disaster response.

Moving forward, Sphere India has been requested to formally express interest in supporting the PDNA process and outline the specific resources it can contribute, including financial aspects. Prioritizing the reconstruction of houses for the Below Poverty Line (BPL) community and exploring ways to assist SDMA's plan for establishing Ham Radio connectivity across the state will be undertaken. Furthermore, sharing the Unified Resource Scoping (URS) matrix with SDMA and subsequently with DDMAs is planned to facilitate a more coordinated emergency response.

Meeting with Shri. Ashutosh Garg, Deputy Commissioner, Kullu

During the meeting with DC, Kullu, key discussions centered around prioritizing the protection of 2000 partially damaged houses, and planning for long-term restoration, particularly focusing on housing and Bailey bridge construction, requiring material support. The significance of mapping vulnerable populations and prioritizing their needs for effective assistance and rehabilitation was emphasized.

Moving forward, the DC will share a demand letter with SI, requesting support to accelerate the recovery process, especially for tarpaulin sheets and Bailey bridge construction, by connecting with potential supporters. Additionally, a quick note and a letter will be drafted to engage different steel specialist organizations for their interest in restoration initiatives. The DC will also undertake mapping of vulnerable populations, categorizing their needs under appropriate subheadings to streamline assistance efforts.

Meeting with Facilitation Team, Kullu

The district administration has constituted a facilitation team for effective emergency coordination. During the meeting with them, the devastating impact of the recent disaster in Kullu was discussed, with 500 houses completely washed out. The immediate need identified is shelter, specifically Temporary Shelters and Tarpaulin Sheets. The team stressed the importance of priority mapping to assist the most vulnerable individuals and communities affected by the disaster. Sainj was recognized as the most affected region, underscoring the need for focused attention on urban planning and resilience. While there are no current plans for animals, the priority remains on saving human lives first. The team also shared that Goonj, Helpage India, National, MDH, Federation for social welfare, smile foundation, save the children and others are responding in the area. The team proposed introducing the URS matrix with GIS technology for effective

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data management and decision-making. Additionally, to streamline efforts and coordination, the two district IAG groups will be merged.

The team unanimously decided to create a comprehensive learning document, drawing from their current experiences, which will be presented during an upcoming consultation meeting. Moreover, they proposed organizing a training session in collaboration with NIDM to strengthen disaster preparedness and response capabilities. Additionally, they plan to leverage the Chief Minister's presence at an event in Kullu on 15th August as an opportunity to raise awareness and garner support for the cause, for which communication collaterals and a radio jingle will be prepared.

Meeting with Shri. Arindam Chaudhary, IAS, Deputy Commissioner, Mandi

During the meeting with DC, Mandi, key discussions included shifting the focus from immediate relief and response efforts to addressing the rehabilitation needs of the affected communities. The recovery needs for damaged bridges and roads were also addressed, along with the encroachment issues near Pandoh and Sainj requiring attention and resolution. Moving forward, the plan includes exploring the provision of temporary shelters to ensure the safety and well-being of flood-affected individuals. Support will be provided to relocate 16 families affected by leprosy in Raghunath Padar to a new community, with collaboration between organizations and the district administration to secure resources for building houses and finding suitable land. A campaign on resilience building with urban planning will be launched, targeting those residing near riversides to raise awareness about associated risks and encourage safer construction practices.

Meeting with State Inter-Agency Group, Himachal Pradesh

During the meeting with the State Inter-Agency Group (IAG) concerning the ongoing floods, landslides, and cloud bursts in Himachal, key discussions centered around acknowledging the efforts of the government and various humanitarian actors in providing immediate relief to the affected communities. The vital role of social emergency response volunteers in the emergency relief and response operations was also highlighted, underscoring their invaluable contributions during the crisis. The meeting further addressed the pressing issue of encroachment in the state, with discussions focusing on the need to address construction activities in the most vulnerable areas, including houses and schools. The damages incurred on roads and bridges were acknowledged, bringing attention to the critical need for rehabilitation and reconstruction efforts.

Looking ahead, the IAG identified the necessity of acquiring resources to support system strengthening and enhance disaster response capabilities. Initiating activities for resilience building emerged as a priority, aiming to better equip communities to cope with future disasters and reduce vulnerability. Effective coordination between various actors, including governmental and non-governmental organizations, was emphasized to ensure a cohesive and efficient response to the ongoing crisis. Building the capacity of community members and volunteers emerged as a key way forward, recognizing their crucial role in disaster preparedness and response efforts. The meeting concluded with a shared commitment to collaborative action, pooling resources and expertise to address the immediate needs of the affected communities and pave the way for long-term recovery and resilience-building initiatives in Himachal.

6. WAY FORWARD

Mid and Long-Term Recovery:

- Advocate with the government and community to prioritize shifting of houses and buildings away from hazard-prone regions.
- Focus on the reconstruction of Bailey bridges in Kullu to restore connectivity in the affected areas.

Awareness and Communication:

- Strengthen communication channels to raise awareness and share information, including preparing communication collaterals and radio jingles.
- Establish Ham Radio connectivity across the state for effective communication during emergencies.

Shelter and Housing:

- Prioritize repair and reconstruction of houses for the most vulnerable populations, with support and resource pooling from humanitarian agencies.
- Provide temporary shelters and tarpaulin sheets for flood-affected people in Mandi to ensure their safety and well-being.

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Assessment and Coordination:

- Conduct a comprehensive Post-Disaster Needs Assessment (PDNA) across the entire state to accurately identify recovery needs.
- Mainstream the Unified Response Strategy (URS) matrix through SDMA and District Disaster Management Authorities (DDMAs) for coordinated emergency response.

Strengthening Systems:

• Provide system strengthening support by enhancing inter and intra department coordination and strengthening district-level Inter-Agency Groups (IAGs).

By focusing on these action points, humanitarian agencies can effectively tackle the pressing relief and response needs, while also enhancing coordination and collaboration to build back better in the state.

Government Response:

- SDMA conducted a mock drill at Shimla and at all the district headquarters in coordination with NDMA on the disasters related to flash flood and landslides on dated 08.06.2023. Similarly a communication mock drill was also conducted at SEOC Shimla involving the police department, telecommunication agencies and all DEOC's on 09.07.2023.
- The State Government was well prepared for monsoons and a video-conference was held on 22ndJune, 2023with all the Deputy Commissioners and line departments under the Chairmanship of Principal Secretary (Revenue) to discuss the various issues regarding the preparedness.

A special meeting was held by the SDMA with the department of energy and authorities of 24 hydro power projects to review the status of preparedness of impending Monsoon 2023 and implementation of guidelines of the Central Water Commission.

- QRTs were constituted for search and rescue operation in the districts.
- The State machinery was fully activated, and relief and restoration work was carried out round the clock. The situation in all the twelve districts was monitored constantly.
- State has released funds under SDRF/NDRF to Deputy Commissioners to the tune of Rs. 71.50 Crore under different heads for relief and restoration measures.
- The DEOCs were monitoring and reporting incidents/losses and damages regularly and the State EOC generated cumulative loss reports on daily basis.
- As a preparatory measure the NDRF was prepositioned at Mandi, Nurpur (Kangra), Kullu and Rampur. Large number of machinery was deployed to clear the roads.
- Three Life buoys were stationed at Bilaspur (Govindsagar lake), Kangra (Pong dam) Mandi (Tattapani) for Search and Rescue. One Drone was provided to DEOC Mandi for aerial survey.
- The vulnerable points of the schemes of essential services were identified and strengthhened to reduce the loss during monsoon.
- Early warnings with CAP were disseminated regularly as and when received from IMD and CWC.
- State has provided 30 Nos.of Landslide sensors for Sirmour, Mandi, Kangra and Kinnuar District for Landslide Monitoring.
- Search and Rescue (SAR) operations were executed promptly.
- Do's and Don'ts were broadcasted through AIR, TV, Print and Other electronic media.
- On account of the widespread damages and loss across the State, the Hon'ble Chief Minister of Himachal Pradesh, held a video conference with all the DCs, Administrative Secretaries, and Departments on 10th July, 2023 to review the preparedness for relief and rescue measures. This was followed by another review by Chief Secretary on 13th July, 2023.
- A ministerial level committee headed by Hon'ble Revenue Minister was constituted by the Government for monitoring the relief and rescue operations.
- Regular meetings were held at the district level for better coordination among various departments for relief, rescue and restoration works

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• DDMA Kullu constitute a facilitation team for coordination with civil society/ Organisation or NGOs for undertaking humanitarian/ relief assistance in kind to the flood affected area in Kullu

7. Humanitarian Response:

- Natural Environmental and Health Association is providing support in Kangra and Chamba districts.
- CASA is actively engaged in relief work in the districts of Kinnaur, Kullu, Mandi, and Solan.
- HAI and their partners are planning relief work in Mandi and Khangla.
- Doers is continuously monitoring the situation and, in collaboration with the State Disaster Management Authority (SDMA), is preparing to initiate the Joint Rapid Needs Assessment (JRNA) for Himachal Pradesh.
- Change Alliance, in association with their partners, is actively working in Himachal Pradesh. They are providing essential supplies such as wash kits, dry ration, and shelter kits, along with psychosocial support to the affected communities.
- Save the Children is currently assessing the situation in Himachal Pradesh to determine the appropriate response for providing relief and support.

8. CONCLUSION:

The Losses human/cattle life & massive damages to public and private properties were every year of Himachal Pradesh in Monsoon season due to Multistory Buildings , not proper Resistant structure, Deforestation and cutting in Mountains by use of JASB Machine. The losses, damaged and destroyed can be controlled follow by the construction rules & buildings laws, avoid mountains cutting by use of JASB, use of latest techniques of pollution control and planting plants. Government must be implement forcefully Environment laws in Himachal Pradesh. Public Participation will be also required in Disaster Management System.

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