

SITUATION ASSESSMENT REPORT

HIMACHAL PRADESH FLOODS
JULY 2023



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1. SITUATION OVERVIEW

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.



FIGURE 1: LANDSLIDE AFFECTED AREA, MANDI

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.

Authorities along with the humanitarian actors and the community are working diligently to address the situation, provide aid to those affected, and restore essential infrastructure. However, the extent of the damage underscores the urgency of relief efforts to support the affected communities and restore normalcy in the region.

1.1 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 22nd June, 2023 with 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 strengthened 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 Kinnaur 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
- 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

1.2 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.

- Sphere India is actively monitoring the situation and organized an Inter-Agency Coordination Meeting on July 14th, 2023 with the responding agencies and the state actors, and has activated the URS (Unified Response Strategy) Matrix to coordinate the relief efforts efficiently. – <https://tinyurl.com/5n7pryyy>

2. ASSESSMENT METHODOLOGY

The preliminary data analysis in the aftermath of the excessive rainfalls in Himachal Pradesh was conducted on July 2023. The secondary review was a desk study based on information available in the media, Sphere India and Government situation reports, government sources, inputs from local organisations working in the state, etc. Ground level information has been collated from the volunteers and organisations along with the initial Assessments conducted by the Sphere India Member/Network organisations. For more detailed study, a preliminary Situation Assessment was done by Sphere India, HCLF and its partners with the support of State IAG in most affected areas districts like; Mandi, Kullu and Shimla.

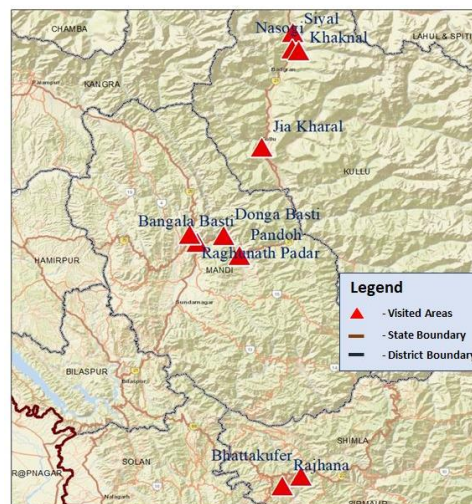


FIGURE 2: SI TEAM VISITED LOCATIONS

3. PRE-INCIDENT INFORMATION

3.1 STATE OVERVIEW: HIMACHAL PRADESH

3.1.1 LOCATION AND GEOGRAPHY

Himachal Pradesh is a state located in the northern part of India, known for its breathtaking landscapes and picturesque mountains. It shares its borders with the states of Jammu and Kashmir to the north, Punjab to the west, Haryana to the southwest, Uttarakhand to the southeast, and Tibet (China) to the east. The state capital is Shimla, a popular hill station nestled amidst the Himalayas. Like other states in the region, Himachal Pradesh experiences relative isolation from the rest of India, contributing to its unique cultural and environmental identity. The economy of Himachal Pradesh revolves around diverse sectors, with a significant focus on agriculture, horticulture, and forestry. The state's fertile lands and favourable climate support the cultivation of various crops and fruits. Additionally, tourism plays a crucial role in its economy, attracting visitors from across the country and beyond to explore its natural beauty and scenic hill stations.



FIGURE 3: GEOGRAPHY, HIMACHAL PRADESH

Himachal Pradesh exhibits a diverse geographical terrain with two major physiographic regions: the foothills and the higher mountainous areas. The foothills encompass fertile valleys and low-lying areas, while the mountainous tracts are characterized by towering peaks and snow-capped ranges. The state's elevation varies greatly, with some regions lying at relatively lower altitudes and others reaching great heights in the Himalayas. The state boasts of numerous captivating features, including beautiful valleys, deep gorges, pristine rivers, and lush forests. One of the prominent rivers in Himachal Pradesh is the Beas River, which originates from the Beas Kund, a glacial lake situated in the Pir Panjal range. The Beas River flows through the state, offering water for irrigation and supporting hydropower projects that contribute to the state's energy needs.

TABLE 1: GEOGRAPHY AND LOCATION, HIMACHAL PRADESH

Parameter	Value
State	Himachal Pradesh
Capital	Shimla
Geographical area	55,673 sq. km
Co-ordinates	32.1024° N, 77.5619° E
Population	77.56 Lakhs
Administrative districts	12 (Three divisions, Shimla, Kangra and Mandi. The districts are further divided into 73 subdivisions, 78 blocks and 172 Tehsils)
Borders	Jammu & Kashmir on North, Punjab on West and South-West, Haryana on South, Uttarakhand on South-East and China on the East
Average Rainfall	1,251 mm
Rivers	Chenab, Ravi, Beas, Satluj and Yamuna

3.1.2 DEMOGRAPHY

The total population of Himachal Pradesh is 68.56 lakh persons as per the Census report for the year 2011. 89.01% of the total population inhabits 20,604 villages in the rural areas of the State. These villages are sparsely distributed across the State having population density as low as 1-2 persons per square kilometer in the remote and tribal area of Lahaul & Spiti. Hamirpur district has largest population density of 369 persons per square kilometer as against 123 persons per sq. km for the whole state. Himachal Pradesh is one of the few states of the country where gender equality is an integral part of the social ethos as well as the overall development strategy. Female literacy is well above the national level and women employment is much higher than in most states of the country.

TABLE 2: DISTRICT WISE DEMOGRAPHY, HIMACHAL PRADESH

District	Area in Sq. Kms.	Total Population 2001 Census	Total Population 2011 Census	Decennial Growth (2001-2011)	Density per Sq. Km. (2011 Census)
Bilaspur	1167	340885	381956	12.08%	327
Chamba	6528	460887	519080	12.58	80
Hamirpur	1118	412700	454768	10.08	406
Kangra	5739	1339030	1510075	12.56	263
Kinnaur	6401	78334	84121	7.61	13
Kullu	5503	381571	437903	14.65	79
L&S	13835	33224	31564	-5.10	2
Mandi	3950	901344	999777	10.89	253
Shimla	5131	722502	814010	12.58	159
Sirmour	2825	45893	529855	15.61	188
Solan	1936	500557	580320	15.21	298
Una	1540	448273	521173	16.24	338
Himachal Pradesh	55673	6077900	6864602	12.95%	123

TABLE 3: DEMOGRAPHY, HIMACHAL PRADESH

Parameter (Census 2011)	Value
State	Himachal Pradesh
Decadal population growth rate	12.81%
Population	68,60,000
Population density	123 (per square kilometre)
Male population	3,480,000
Female population	3,380,000
Sex ratio	972
Literacy rate	82.80 %
Literacy Rate (Rural)	90.83%
Literacy Rate (Urban)	80.34%
Life expectancy (years)	69.3

3.1.3 CLIMATE

The climate varies across the state with the altitude. In the southern low tracks between an altitude of 400-900 it is hot sub humid type, between 900-1800m altitude warm & temperate, between 900-2400 m cool and temperate, cold alpine & glacial above 2400-4800 m altitude. Bilaspur, Kangra,

Mandi, Sirmour, and Una districts experience sub-tropical monsoon, mild and dry winter and hot summer. Shimla district has tropical upland type climate with mild and dry winter and short warm summer. Chamba district experiences, humid subtropical type climate having mild winter, long hot summer and moist all season. Kullu district experience mainly humid subtropical type of climate with mild winter moist all season, long hot summer and marine. During the period from January to February heavy snowfall in higher reaches create conditions for low temperature throughout the state making it unpleasant and series of western disturbances also affect the state.

CLIMATE PROFILE

TABLE 4: CLIMATE PROFILE, HIMACHAL PRADESH

Parameter	Value
Seasons	The climate varies from hot and sub-humid tropical (450–900 metres) in the southern low tracts, warm and temperate (900–1800 metres), cool and temperate (1900–2400 metres) and cold glacial and alpine (2400–4800 metres) in the northern and eastern high elevated mountain ranges. Winter: Nov to Feb Summer: Apr to June Rainy: June Aug
Average annual rainfall in Jharkhand	The average annual rainfall in the district is 152 cm ² .
Disaster Prone months	July-August receives heavy rainfall leading to landslides Dry summer session triggers many forest fires in hilly regions.
River basins	Chandra Bhaga (Chenab), Ravi, Beas, Sutlej, Yamuna

3.1.4 HOUSEHOLDS AND SLUMS

Himachal Pradesh, approximately has 88.52% of houses are owned by their occupants, while 7.21% are rented. The data also reveals that 82.36% of couples in Himachal Pradesh lived in single families as of the last census. As for access to banking and financial services, around 33.28% of the population in Himachal Pradesh have access to Banking and Non-Banking Finance Corporation services, which have seen further growth. Regarding internet facilities, in 2011, only 8.92% of the population in Himachal Pradesh had internet access. However, with the advancements in technology and the widespread availability of mobile internet services provided by companies like Reliance Jio and Airtel, this figure is expected to have increased significantly by now. In terms of vehicle ownership, 12.34% of families in Himachal Pradesh owned a car, while 24.67% owned a two-wheeler, based on the last census data. As the state's infrastructure and economy continue to grow, there might have been further changes in vehicle ownership

TABLE 5: HOUSEHOLD DATA

Parameter	Value
Population density per km ²	123
Urban Population	10.03%
Rural population	89.97%
Households with safe drinking water supply (Refer HLO Census document)	
Total No. of Households	1483280
From treated source Tap water	83.93
From untreated source Tap water	5.56

From covered well	1.55
From uncovered well	1.33
Handpump	3.59
Tube well	0.65
Distribution of HH by predominant material of roof (Refer HLO Census document)	
Houses made of grass/Thatch/Bamboo/wood/Mud etc.	0.42
Plastic/polythene	0.35
Distribution of HH by predominant material of wall (Refer HLO Census document)	
Houses made of grass/Thatch/Bamboo/wood/Mud etc.	0.43
Plastic/polythene	0.19
Mud/unburnt brick	18.01
Wood	1.22
Burnt brick	44.08
Stone	34.9
Concrete	1.00
Distribution of HH by availability of Bathing facility/Type of drainage/Kitchen (Refer HLO Census document)	
Bathroom available	67.46
Closed drainage	24.83
Open drainage	40.36

3.1.5 EDUCATION

Himachal Pradesh has made commendable progress in literacy, with the rate increasing from 30.42% in 1961 to 76.94% in 2011. The state has seen significant improvements in both male and female literacy rates, narrowing the gender gap. The education system is primarily conducted in English under the 10+2+3 plan, and various universities and institutes offer diverse educational opportunities. The Directorate of Education (Schools), Government of Himachal Pradesh, oversees school education from primary to Higher Secondary stages, while Autonomous Hill District Councils manage primary education in Hill Districts. CBSE-affiliated schools and the Tribal Welfare Department further contribute to a comprehensive educational landscape in the state.

TABLE 6: EDUCATION DATA

Indicator	
Literacy rate (%)	83.78%
School Education Quality Index 2016-17	58.12%
Gross Enrolment Ratio (per cent)	Primary -104.51%; Upper Primary-102.24%; Elementary-96.36%; Secondary -60.93 and Higher secondary-38.89%
Literacy rate-Scheduled Caste % by Sex and residence (Rural)	Male-86.20% Female- 71.5% Person-78.9%
Literacy rate-Scheduled Tribe % by Sex and residence (Rural)	Male-83.02% Female-64.2% Person-73.6%
Annual average dropout rates %	Primary-0.23%

	Upper Primary-6.50%
Total No. of schools	15395
No of teachers	66811

3.1.6 HEALTH

Medical facilities in Himachal Pradesh are well-established and primarily provided by the state government. The comprehensive healthcare system consists of 553 hospitals and dispensaries, supported by 919 doctors and 1,480 hospital beds. In the year 2018-19, 1,185.07 thousand patients received medical attention, with 78.34 thousand treated as indoor patients and 1,106.73 thousand as outdoor patients. The state government consistently emphasizes improving and expanding medical services, ensuring quality care is accessible to all, even in remote areas.

The State has an extensive network of health care institutions. There are 98 hospitals, 2104 Sub-centres, 92 CHC's/RH, 588 PHC's, with available bed capacity of 14527. Similarly, there are 33 Ayurvedic hospitals, 1182 dispensaries/health centres with a bed capacity of 941 available in the state. Besides, there are 3 Ayurvedic Pharmacies and 1 Research Institute. Birth and death rate in the state is 15.3 per 1000 and 6.8 per 1000 respectively.

TABLE 7: HEALTH DATA

Parameter	Values
Infant Mortality rate	11
Crude Birth Rate	14.4
Crude Death Rate	4.1
Maternal Mortality rate	64
Sex Ratio	987
Institutional Delivery %	68.3
Total Fertility Rate	1.5

3.1.7 WATER, SANITATION AND HYGIENE

The National Water policy aims to ensure access to safe drinking water and basic sanitation for all sections of society, with special attention given to the needs of rural and urban areas.

Under the Rural Water Supply Programme, which includes the centrally sponsored scheme of Minimum Need Programme (MNP) and Accelerated Rural Water Supply Programme (ARWSP), a total of 3,125 habitations were covered as of 2014. By 2019 (as of 1st April), this number had increased to 3,352 habitations.

Additionally, the Swachh Bharat Mission (Gramin) in Himachal Pradesh has targeted the completion of 5,10,352 individual household latrines, 270 sanitary complexes, and 1,020 Solid and Liquid Waste Management projects during the year 2019-20.

Menstrual Health and Hygiene: In terms of menstrual health and hygiene, Himachal Pradesh recognizes the importance of educating adolescent girls on menstruation. Incorporating health education on menstruation and menstrual hygiene early in the school curriculum is essential to prepare girls for this natural process and promote positive attitudes towards menstrual health. Himachal Pradesh has been committed to the principles of the National Water Policy and is actively working towards providing safe drinking water and sanitation facilities to its residents, both in rural and urban areas, as well as promoting menstrual health and hygiene among adolescent girls.

3.1.8 ROADS AND BRIDGES

Total 18156 villages are connected with roads in the state. The total road length in the state is 40055 Km out of which the single lane road length is 32940 km, double lane road length is 1396 km and jeepable road length is 369 km.

3.1.9 LIVELIHOOD

The agriculture sector holds a significant position in the economy of Himachal Pradesh and makes a substantial contribution to the State's Domestic Product. A considerable proportion of the state's workforce, approximately 48.92%, is engaged in agriculture-related activities, such as cultivation and agricultural labour. The agricultural practices in Himachal Pradesh vary depending on the geographic regions. In the valley districts, permanent cultivation is prevalent, while in certain hilly pockets, terrace cultivation is practiced. However, in many hill areas, jhuming or shifting cultivation remains a common practice. Rice is the staple food crop in Himachal Pradesh, cultivated in both hill and plain areas. The state's rice production in the year 2019-20 (Provisional) was estimated to be around 4.2 lakh tonnes. Apart from rice, other crops like maize, wheat, barley, and fruits like apples are also grown in the state.

The livestock sector is another essential component of agriculture in Himachal Pradesh. According to the livestock census conducted in 2019, the state had a total of 8.12 lakhs livestock. Of these, there were approximately 2.92 lakhs cattle, 2.05 lakhs buffaloes, and 3.65 lakhs sheep and goats. Additionally, the state recorded a poultry population of 75.65 lakhs. Milk, egg, and meat production are the primary outputs of the livestock sector in Himachal Pradesh. The state has made significant progress in enhancing milk production, and dairy farming has become a vital source of livelihood for many farmers. As with agriculture, Himachal Pradesh's agricultural productivity is influenced by factors like timely rainfall and weather conditions, making it essential for farmers to adopt sustainable farming practices and explore newer techniques to improve crop yields and livestock productivity.

4. CURRENT SITUATION SCENARIO

4.1 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:-

TABLE 8: DISTRICT WISE LANDSLIDE DATA, 2023

S. No.	Name of District	Total
1.	Bilaspur	03
2.	Chamba	241
3.	Hamirpur	00
4.	Kangra	02
5.	Kinnaur	257
6.	Kullu	2600
7.	Lahul& Spiti	13
8.	Mandi	203
9.	Shimla	1960
10.	Solan	184
11.	Sirmaur	17
12.	Una	00
Total		5480

Source: Received from State Emergency Operation Centre, Himachal Pradesh

4.2 CLOUDBURST RECORDED

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

TABLE 9: DISTRICT WISE CLOUDBURST DATA, 2023

Number of Cloudburst incidents		
Sr No	District Name	Total (Nos.)
1.	Shimla	01
2.	Kullu	12
3.	Solan	01
Total		14

Source: Received from District Control Rooms

4.3 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 10: DISTRICT WISE FLASH FLOOD DATA

S. No.	Name of District	Total
1.	Bilaspur	01
2.	Chamba	04
3.	Hamirpur	01
4.	Kangra	25
5.	Kinnaur	01

6.	Kullu	20
7.	Lahul Spiti	12
8.	Mandi	10
9.	Shimla	05
10.	Sirmaur	03
11.	Una	01
Total		83

Source: Received from District Control Rooms

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

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.

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. 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.

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.

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

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.

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.

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.

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.

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.

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.

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.

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

4.5 POST-DISASTER SITUATION IN HIMACHAL PRADESH- JULY 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, cloudburst, 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.

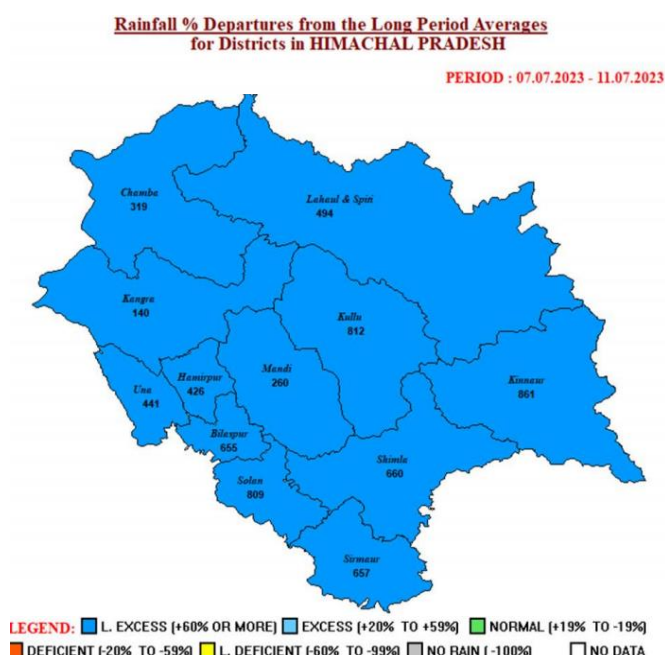


FIGURE 4: DISTRICT-WISE RAINFALL BY IMD, SHIMLA

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

5. 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.



OTHER AFFECTED AREAS VISITED BY THE TEAM:

JIA, KHARAL, KULLU



KHAKNAL, KULLU



AALOO GROUND, MANALI



SIYAL, MANALI



MATHOLI, SHIMLA



RAJHANA, SHIMLA



5.1 SECTORAL IMPACT

5.1.1 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.

5.1.2 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.

5.1.3 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.

5.1.4 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

5.1.5 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.

6. GO-NGO COORDINATION

During the Mission travel to Himachal Pradesh, field team of Sphere India Team and HCL Foundation engaged with the State Disaster Management Authority and District Commissioners to learn about their ongoing response efforts and future action plans, identifying opportunities to support and supplement their endeavors. Additionally, the team held brainstorming sessions with the State and District Inter-Agency Groups (IAGs) along with other responding agencies to assess their capacities and streamline response efforts for a unified and coordinated response strategy. The mission aimed to fill the information gap and facilitate better GO-NGO coordination and support for the affected communities in Himachal Pradesh.

6.1 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 DDMA is planned to facilitate a more coordinated emergency response.

6.2 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.

6.3 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 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.



6.4 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.

6.5 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.

7. 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.

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.

8. ANNEXURES

EXPRESSION OF SOLIDARITY

Sphere India, as a national coalition of humanitarian, development and resilient actors in India, released Expression of Solidarity to express solidarity with the affected people of Himachal Pradesh.

Sphere India will continue to explore ways in which the humanitarian sector and civil society groups can complement the efforts of the government and assist the affected population to ensure their right to life with dignity and the right to protection during the time of crisis.



Rainfall Situation in Himachal Pradesh, July 2023

According to the Indian Meteorological Department (IMD) in Shimla, all districts in Himachal Pradesh have experienced rainfall significantly above normal levels, with Kinnaur, Kullu, and Solan being the most affected. In recent hours, several districts have set new records for the highest rainfall ever recorded. Since June 24, the state has witnessed the loss of **91 lives**, with 16 people still reported missing, according to the Himachal Pradesh disaster management authority. Additionally, 170 houses have been permanently damaged. The consequences of the heavy rainfall are immense, with over 1,000 roads closed and more than 5,000 water supply schemes damaged. Landslides and flash floods have been frequent, with 51 landslides and 32 incidents of flash floods reported since the beginning of the monsoon. Numerous tourists are currently stranded in various districts, including Chamba, Shimla, Sirmour, Kinnaur, and others. The disrupted mobile connectivity has made it difficult for them to contact the authorities, but they are now seeking assistance from the police and district administration. Although the Himachal Pradesh government has successfully evacuated approximately 60,000 tourists so far, the challenges persist due to ongoing road closures caused by landslides and floods. Evacuations have taken place in various areas, such as Kasol in Kullu, Sissu in Lahaul, and the Kafnu and Mulling regions of Kinnaur. The Chief Minister has confirmed the safe evacuation of 2,000 tourists stranded in the Kasol area of Kullu district. Rescue operations were carried out in the Chandratol area by joint teams of the state government for stranded tourists in Lahaul-Spiti on July 13. State's Revenue Minister Jagat Singh Negi and CPS PWD Sanjay Awasthi were monitoring the spot.

As a humanitarian collective, we advocate for:

Government: To assess the situation and undertake immediate measures for the relief and response recovery for the affected people and animals. Establish close coordination mechanisms and systems that prioritize the unmet needs of the most vulnerable populations during natural emergencies.

Humanitarian Agencies: To compliment government efforts and provide assistance to the affected people as guided by Sphere Minimum Standards. To conduct humanitarian assessment in various sectors and share the findings with the donors and government agencies.

Citizens: To contribute to immediate response and recovery during any arising humanitarian emergencies due to the situation and share information through media streams.

Coordination Agencies: To analyze overall needs emerging through needs assessment and activate unified response system

Donors (Institutional, Corporate, Individuals): To provide resources to meet the emerging long term recovery needs. To establish an inclusive and efficient coordination mechanism for all stakeholders.

Media: To provide information that could guide affected people to contact operation efforts and spreading awareness.



Emerging Needs:

Emerging needs of the affected people are; **Food and Non-Food items** including dignity kits, food packets, water bottles, mosquito nets, mattresses, and bedsheets; **WaSH** support such as disinfectants, mobile toilets, clean drinking water, sanitary napkins, washing, and bathing soaps; **Health** actions like first aid kits, medical supplies, nutrition supplies, and immediate support especially for children, lactating mothers, pregnant ladies, etc; **Shelter** support for long-term recovery especially with roadways, and homes being destroyed.



Expression of Solidarity:

Sphere India expresses solidarity with the affected people who have lost their loved ones due to the effects of excessive rainfall in Himachal Pradesh. As a coalition of humanitarian agencies in India, we will continue to explore ways in which the humanitarian sector and civil society groups can complement the efforts of the government and assist the affected population to ensure their right to life with dignity and right during this humanitarian emergency.



Sphere India, is a National Coalition of Humanitarian, Development, and Resilience Actors in India: The diversity of the actors includes the outreach of 155 full members including key nodal organizations from UN, INGOs, National NGOs, CSR, Academic Institutions, Sector Networks, Expert Individuals, and State IAGs/Networks. The local outreach is evolving with 805 associate members as SI Leon Empowered Organizations Network and 1,80,000 community volunteers (CDRF: Community Disaster Response Force) mapped for varied capacities all over India. Sphere India promotes a rights and needs-based approach with a focus on the promotion of humanitarian principles, and minimum standards while strategically achieving accountability to affected and at-risk populations.

Sphere India Collaborative Advocacy Program led by the advocacy committee of Sphere India members develops an analysis of humanitarian situations in the country and advocates for priority actions for different stakeholders to provide humanitarian services and protect the rights of the affected at-risk people.

On behalf of Sphere India Members,
Mr. Vikrant Mahajan, CEO, Sphere India

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