

ADMINISTRATIVE RESPONSE TO 2014 FLOODS IN JAMMU AND KASHMIR: A CRITICAL ANALYSIS OF PRE AND POST-FLOOD MANAGEMENT MEASURES

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Abstract

Disasters are as old as civilizations. They have become part of our lives. We cannot find an absolute risk free environment to live in. In September 2014, unmatched and unprecedented floods in Jammu & Kashmir describe human suffering, which the territory has not substantiated over ten decades. The havoc caused by the flood was horrific. Around three hundred (300) lives were lost and whatever came in its way was destroyed. Educational institutions, hospitals, residential structures, orchards, paddy land, commercial and business establishments, and various other government institutions suffered massive damage. The devastation and destruction everywhere around left the habitants distressed and traumatized. The entire society was shaken up. The signs, symbols, and indicators architecture, culture, art, history, and immaculate natural beauty got destroyed. Jammu and Kashmir suffered a massive loss of 16 billion dollars. Throughout the State around one lakh, twenty-five thousand (125,000) families and five thousand six hundred forty-two (5642) villages were affected. In the entire region, about eight hundred (800) villages were inundated for more than 15 days. Three lakh fifty thousand (350000) structures, mostly residential houses, were badly affected and damaged. A great lesson which common people in general and the government in particular need to learn is to take into account the pre-disaster phase, which includes prevention, mitigation and preparedness very seriously so that future floods don't cause such colossal destruction. There is an urgent requirement for an Eco-friendly and Eco-sensitive development in the brittle and fragile Pir Panjal and Himalayan surroundings. Serious efforts are indispensable to make disaster management a key agenda of governance.

Keywords: Disasters, Flood, Unprecedented, Devastation, Havoc, Traumatized, Inundated, Prevention, Mitigation, Preparedness, Recovery

Introduction

In the year 2014, there were 226 natural disaster events recorded in the world and among them 119 occurrences took place in the region of Asia-Pacific. These disasters affected almost 79.6 million people (ESCAP, 2014). Asia suffered the most damage comprising of 64.6% of worldwide natural disasters with a loss of 99.2 billion US dollars (Debarati Guha-Sapir, 2015). In this year the costliest disaster was the riverine flood in the Jammu and Kashmir, which costed 16 billion US dollars (Debarati Guha-Sapir, 2015).

The Annual Disaster Statistical Review 2014 has enlisted the Jammu and Kashmir flood on the top in terms of economic damages which is shown in the table 1 below:

Table1: Top Ten Natural Disasters in terms of economic damages in the year 2014

Diaster/Event	Place	Damage incurred (US \$bn.)
Flood(September)	India (Jammu and kashmir)	16,00.00
Hudhud Cyclone(October)	India	7,00.00
Winter storm(February)	Japan	5,90.00
Rammasun Typhoon (July)	Vietnam, Philippines and China	5,06.00
Drought (Jan. to April)	Brazil	5,00.00
Earthquake(August)	China	5,00.00
Convective storm (May)	USA	3,90.00

Kalmaegi Typhoon (September)	Vietnam, Philippines and China	2,92.00
Drought(Aug. to October)	China	2,50.00
Odile Hurricane (September)	Mexico	2,50.00
	Total	55,78.00

Source: Annual Disaster Statistical Review 2014

The Union territory of Jammu and Kashmir is very different from the other parts of the country in terms of climate, social setting, topography, economy and strategic location. Jammu and Kashmir is spread over an area of 42,241 square kilometres and is spilited into two regions namely Jammu and Kashmir. Both the summer and winter capital cities of the state (Srinagar and Jammu) figure in Seismic zone IV and V(Draft Jammu and Kashmir State Disaster Management Policy, 2011).

Disasters in Jammu and Kashmir are a recurring phenomenon. Owing to its peculiar topography, extreme weather conditions, rugged terrain and most importantly an underdeveloped economy the Union territory has suffered huge loss of life and property (Draft Jammu and Kashmir State Disaster Management Policy, 2011). Being a disaster-prone area, Jammu and Kashmir is one of the most vulnerable places to disasters. Earthquakes, avalanches, landslides, forest fires and floods are some of the disasters frequently occurring in the union territory(Rajesh Kumar, 2016). In recent history, some severe earthquakes and floods have hit the state e.g. 2005 earthquake, 2010 cloud burst and September 2014 flood. Floods in the region of Jammu and Kashmir are very common phenomenon owing to the complex orography (Mishra, 2015).

In recent years various countries have witnessed significant changes in their meteorological conditions and climate which have resulted in an upward shift in flood levels and frequency in flooding(Roger A. Falconer, 2009). The fragile Himalayan union territory of Jammu and Kashmir, which is surrounded by glaciers, has also witnessed the same change.

If the history and geography of Jammu and Kashmir is to be believed, then floods in the union territory are not an unusual occurrence. The territory has witnessed an unprecedented and unmatched amount of downpour, causing its worst deluges. Various calamitous floods are recorded in the history of Kashmir(Lawrence, 1895). Floods in the valley are always related to River Jehlum (Fig.1) and its history of crossing the risk mark. Its rivulets and streamlets start overflowing, which results in inundation of the valley(Ananth, 2014). River Jhelum floods are as old as the river itself(Hilal Ahmad Ganaie, 2013). Almost every year, the people of the union territory have to suffer due to floods. In the light of literature available on 2014 floods, we can very conveniently say that Jammu and Kashmir is lagging when it comes to disaster management. The focus of this study is to analyse the role of administration in flood management measures critically.

The unmatched and unprecedented flood of September 2014 in Jammu and Kashmir describes human suffering, which the territory has not substantiated over ten decades. The incessant rains and poor disaster planning brought the destruction which the valley has not seen before(Muzammil Ahad Dar, 2015). The havoc caused by the flood was colossal and horrific. Around three hundred (300), human lives were lost, and whatever came in its way was destroyed. Educational institutions, hospitals, residential structures, orchards, and paddy land, commercial and business establishments, and various other government institutions suffered massive damage. It rendered thousands of people homeless.

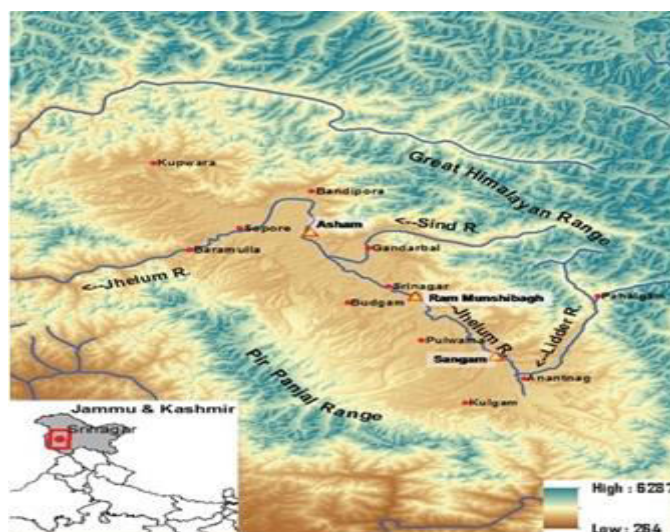


Figure 1: Path of the river Jehlum
Source: Google

In September 2014, the union territory of Jammu and Kashmir received pervasive and very high rains from September 1 to 7, causing unprecedented flooding (Romshoo, 2015). During the flood week, an approximate 156.7 mm amount of rainfall was recorded in a day (Manohar Arora, 2016). It left thousands beached inside their partially inundated houses. The heavy and incessant rains for over a week caused gigantic floods. By the dusk of the first day (6th September) of massive flooding, twenty-five hundred (2500) villages across the union territory were affected, the death toll went up to one hundred sixty (160), and dozens of residential houses were destroyed (Vithalani Kinjal Rajeshkumar, 2017). Due to incessant downpour and overflowing of all the water bodies and flood channels, the deluge got worse. In the Srinagar city and other adjoining urban areas, the water levels went up about 20 feet. Various villages were inaccessible due to the destruction of the roads and bridges leading into these villages. In the summer capital the entire

Secretariat, Police headquarter, fire services headquarter, major hospitals, control rooms and other infrastructure were underwater (Fig.2). Even landlines and mobile phones were not operational. To carry out a rescue operation initially was impracticable since weather remained bad for many and the administration struggled to make an appearance to help the stranded humans.



Figure 2: Inundated Srinagar

Source: Rising Kashmir

The severity of the Flood

The northern union territory of Jammu and Kashmir is a mid-size state. As per the state census report of 2011, the union territory comprises of six thousand six hundred fifty-one (6,651) villages, one hundred four (104) urban areas and eight urban agglomerations. These towns and villages are dispensed in twenty-two (22) districts and eighty-two (82) sub-districts. The population of the union territory as per the census was 1.25 crores or 12.25 million¹(Tabish SA, 2015).

Throughout the union territory around two thousand six hundred (2,600) villages were affected by the September 2014 floods, out of which eight hundred (800) villages were entirely inundated and two thousand two hundred and twenty-five (2,225) villages were partly inundated. It had left three hundred (300) villages fully inaccessible, and thirty percent of the urban belt was submerged (Fig.3). Jammu and Kashmir suffered a huge loss, and some figures are listed below:

- Lives lost: 281 deaths and 29 missing
- Number of affected families: 12.5 lakhs
- Loss of Housing sector: over 30,000 crores Rupees
- Loss of business sector: over 70,000 crores Rupees.
- Number of structures damaged: 83044 Pucca houses were fully damaged, 96089 were partially damaged, 21162 kaccha houses got fully damaged, 54264 were partially damaged and 99305 cowsheds damaged
- Number of villages affected: 5642
- Number of villages inundated for over two weeks: 800
- Number of bridges/culverts damaged: over 550
- Roads damaged: 6000 km (Fazili, 2015).
- Crop losses Rs 5611 crore including Rs 1568 crore losses to the horticulture sector

¹ These figures are from the Census report of 2011 and presently these figures are different because after August 2019, when the state of J&K was changed into Union territory its two districts (Kargil and Leh) were separated and were given the status of separate Union territory.

- 6.5 lakh hectares of land got affected due to flood.
- More than ten thousand (10,000) milch animals and thirty-three thousand (33,000) sheep got perished.
- Government housing and tourism sector lost Rs 5,000 crore(Jammu and Kashmir flood losses in excess of Rs one lakh crore, 2014).

A report prepared by Annual Disaster Statistical Review mentions that Kashmir incurred losses of \$16 billion (104000 crore INR) in September 2014 floods. The September 2014 Kashmir flood figured 5th deadly disaster across the globe. This flood has also been placed as 8th worst disaster in terms of the number of people affected. As per the report, 3.60 million people were affected due to this flood(Mudasir, 2015).



Figure 3: Badly affected and cut-off areas in the state
Source: NDTV

Administrative response to 2014 flood in Jammu and Kashmir:

1. Lack of Preparedness Planning

Planning involves anticipating the unexpected. Preparedness planning involves a co-operative and a co-ordinated process to cope up with an emergency with all the resources available. Planning is required not only to mitigate the impact of disasters, but also to manage business continuance while handling the crisis, and to effectively guide towards recovery and reconstruction(Alexander, 2015).

As history bears testimony to the fact the place is flood-prone, the onus was on the local government to design an anticipatory plan for flood preparedness. In this connection, different agencies like SDMA and DDMA needed to rope in to prepare a master plan for preparedness in which they failed. Despite clear indications of impending floods, the successive governments of Jammu and Kashmir have miserably failed to develop a necessary water management system which could develop the resilience of the flood-prone society and mitigate the risk (Romshoo, 2015). There were no effective and adequate measures of preparedness were carried out by the state administration. The emergency shelters were not identified; no disaster response teams were framed and deployed on time, the essential supplies and pieces of equipment were not made available. Though the state government has adopted disaster management policy 2012, the institutional system and distribution of duty is a far cry. The SDRF was twenty-eight (28) percent short of its permitted strength. The remaining personnel were neither properly trained nor deployed during the flood. There were no Standard Operating Procedures adopted for the placement of forces personnel. The state was having a capacity of 1,588, but only 1142 personnel were employed. Out of these 1142 personnel, only 358 were deployed in units. The rest 784 personnel were used for various purposes like quarter guard duties, attached with political leaders, serving or retired police officials, attached with Civil or Home Guard units.

Furthermore, these personnel needed to go through a primary orientation course and then some particular courses. For primary orientation courses, only 399 personnel got trained, and only 465 personnel got trained in disaster management courses(Performance Audit of Disaster Management in the State of Jammu and Kashmir, 2016). All these personnel did not have the necessary assistance of specialists like electricians, dog squads, paramedics, and engineers.

2. Lack of Coordination

Disasters can be managed effectively by an integrated and comprehensive approach that emphasizes a multi-dimensional, multi-level and multi-disciplinary co-ordination among all the stakeholders(Jiquan Zhang, 2018).

The state of Jammu and Kashmir was neither having any separate department for disaster management nor was any state advisory committee there (Performance Audit of Disaster Management in the State of Jammu and Kashmir, 2016). The revenue department of the state, which is primarily responsible for maintaining land records, was given the additional responsibility for disaster management. Due to the unavailability of the separate department, all the disaster-related measures and activities were not carried out properly. To deal with devastating flood of 2014 there should have been well co-ordination between various departments like Irrigation and Flood Control; Public Health Engineering; Power Development Department; Food, Civil Supplies and Consumer Affairs, Police, Fire and Emergency Service, Revenue, Health etc which was not and this pushed all the post-disaster management to jeopardy. Due to the poor coordination between various stakeholders; governmental, non-governmental, international, and private agents, the collective effort could not be pushed in timely. One of the main reasons why the flood disaster could not be managed during initial hours was that the state administration could not coordinate with its departments. There was an absolute breakdown of communication. Various emergency centers created by the administration in Srinagar were also flooded. Civil Secretariat, Headquarter of Fire and Emergency Service, Police Control room were inundated. The teams to tackle the emergency were neither identified nor rushed to the affected areas. There was no proper intimidation and advisory issued to vulnerable areas for evacuation. Thanks to volunteers, NGO's, religious organizations, and community-based communities that people were evacuated from low lying and inundated areas, and some humanitarian aid was managed without many roles of government.

3. Lack of Proper Flood Forecasting System

We cannot prevent floods from happening, but we can minimize the destructive impact of floods by flood protection and improved forecasting (Roger A. Falconer, 2009). Flood warning helps to minimize the sufferings of human life, loss to the environment, and economy (Md. Mizanur Rahman, n.d.). Despite the alarming bells signaled by the rise in water level to dangerous mark from 5.3 meters on 3 September 2014 to 10.13 meters on 4 September 2014 at three important hydrological stations viz Sangam, Ram Munshi Bagh and Asham Safapora, state administration promptly failed to take the devil by the horn. In the absence of proper flood forecasting mechanism, the preparedness to meet eventuality was nill at the bottom; therefore, it resulted in a mess when it was too late. Despite being a flood-prone area, Jammu and Kashmir did not have a proper flood forecasting system or disaster management in place (Basu, 2015). Central water commission, which is responsible for flood forecasting and issuing advisory to states regarding floods, had not placed any flood forecasting system at any place in Jammu and Kashmir. The flood forecast list of central water commission on 6th September 2014 had eighteen (18) level forecasts and eight (8) inflow forecast, but none was from Jammu and Kashmir (South Asia Network on Dams, Rivers and People (SANDRP), 2015). The Central Water Commission said, "lack of pre-requisite requirements" was to be blamed for the absence of flood forecasting system in the state (Sanjay Agarwal, 2014). The situation could have been brought under via proper communication network and connectivity.

4. Evacuation

Effective and quick response to early warnings and orders for evacuation minimises the loss of lives and property. A fine example of this is the Phailin cyclone which struck Thailand, Myanmar and India on October 2013. In this disaster a numbers of lives were saved by early warning and timely evacuation, even though the cyclone was very powerful and lead to widespread damage and affected about 13 million people (Walch, 2018).

The September 2014 flood exposed the lack of disaster risk reduction mechanism in Jammu and Kashmir. Although there are few departments viz. Irrigation and flood control, revenue department, but at the time of floods, these departments were paralyzed and showed a complete absence of professionalism (Muzammil Ahad Dar, 2015). According to the DM Act 2005 and State Disaster Management Policy, all the districts have to formulate a plan for evacuation, and they have to identify the relief camps and shelters. But none of the district administration did this in Jammu and Kashmir. No plan was drafted for evacuation, rescue, and relief measures by any of the district authorities across the state. In the absence of a proper and well-articulated plan, the people were not evacuated on time. The administration failed to evacuate the stranded people for almost a week. They were left at their mercy without drinking water, medicines and other necessities. Children were without milk, and everyone stranded was suffering. There was no preparedness from the side of the government to deal with such a disaster. All the government establishments and residential houses were inundated. The areas which suffered worse were Mehjoor Nagar, Wazir Bagh, Pandraithan, Rambagh, Shivpora, Batwara, Jawahar Nagar, Solina, Rajbagh, Sanantnagar, Gogji Bagh, Padshahi Bagh, Batamalo, Qamarwari, Karan Nagar and Bemina. In these areas, water had inundated the houses up to the second floor, and people were stranded at the top floor of their houses. The rescuers were not available from the administration side, so local civilians themselves

carried out the rescue operation by navigating across the Srinagar city using wooden boats (Muzammil Ahad Dar, 2015).

5. Relief Distribution

Distribution of relief supplies and allocation of the facilities to store these supplies are vital activities of disaster management (Asli Sebatli, 2017).

As per the National Policy on Disaster Management (Indrajit Pal, 2018), all the state Governments and district authorities need to prepare standing operating procedures in accordance with the NDMP's and SDMP's. The standing operating procedure was followed by the State executive committee in March 2014.

The standard operating procedures (SOPs) proposed that the deputy commissioners from each district of the state will share responsibility in terms of arranging relief material like ration, tents, boats, blankets, etc.

There were a lot of irregularities in terms of relief distribution. Be it providing gratuitous assistance, free ration, blankets, or household goods; nothing was done properly. According to the guidelines laid down for SDRF operations, an amount (gratuitous assistance) of Rs. 1300 is provided to each household for loss of clothing and Rs. 1400 is given to each household for the loss of household goods. This gratuitous assistance has to be provided within 15 days from the incident of any disaster. This relief was delayed upto 6 months, which killed the motive of providing this quick relief. This delay is shown in table 2 below (Performance Audit of Disaster Management in the State of Jammu and Kashmir, 2016)

Table 2: Delay in distributing Gratuitous assistance

Name of District	Total Number of Cases	Amount given with 15 days (Prescribed time period)	Duration in which Payment was given to Flood Victims			
			Amount given within 15 to 30 days	Amount given within 1 to 3 months	Amount given within 3 to 6 months	Amount given after 6 months
Anantnag	21053	Zero	190	12678	4065	4120
Budgam	18554	Zero	4	18440	110	Zero
Srinagar	96622	Zero	Zero	76083	16246	4293
Poonch	8516	Zero	2317	5732	467	—
Jammu	27123	3513	7829	14647	1134	—
Udampur	812	1	1865	5491	786	39

Relief amount of 12.60 crores was not distributed among 46680 entitled families; also, an amount of 1.42 crore gratuitous relief was distributed among the households which were not deserving (Performance Audit of Disaster Management in the State of Jammu and Kashmir, 2016).

The state administration announced that for six months, free ration would be provided to the victims. They fixed a quantity of 35kgs per household per month. But due to weak and insufficient mechanisms of district administrations in locating and identifying the flood victims, the free ration was not provided to them during the first two months of the flood (September and October 2014) when it was direly needed. Another issue that delayed this free ration to reach the flood-affected households was that two lists of victims were made; one which was forwarded by the revenue department and another was forwarded to consumer affairs and public distribution (CAPD) department by each district administration. In these two lists, there was a big margin/ variation of sixty-nine (69) percent. Had the district administration identified the flood victims properly and on time, the ration would have reached them without any unnecessary delay.

Many states were sending relief material to the state. The government of Chattisgrah also sent 53298 bags of rice to be distributed among flood victims of the state. On 16th/17th of September, this shipment was collected at the Udampur Railway Station in Jammu. The state administration was not having an adequate number of carriers/trucks available, and the lifting of bags did not start for nine days. The rice bags were left in open space leading 5375 rice bags to rot due to water. Out of the remaining bags, twenty-six thousand nine hundred twenty (26920) bags were moved to Kashmir till 25th October (Performance Audit of Disaster Management in the State of Jammu and Kashmir, 2016). Again due to inefficiency of state administration, the concerned department consumer affairs and public distribution (CAPD) miserably failed to distribute these bags among flood victims of Kashmir valley till May 2015, and a large portion of this rice finally became sub-standard.

6. Damage Assessment and Payment of Ex-gratia

The basic motive of post disaster damage assessment and need analysis is to know the exact position of post disaster situation, to find relief needs and to evolve strategies for recovery. Different disasters come up with different set of hurdles and problems for relief workers which are overcome in order to provide assistance and relief to the victims and needy ones. Need analysis and damage assessment should be accurate as it promotes effective and efficient application of existing logistics(Mihir R. Bhatt, 2005).

As per the Standard Operation Procedures (SOPs), when any claim is made for the damage to any immovable private property, its need assessment is conducted by a committee chaired by additional district development commissioner. Along with ADDC, there is an assistant commissioner of the revenue department and Tehsildar of that area from which claim has been made. In this committee, the executive engineer of the public works department and roads and buildings department is also members. But only in Poonch district was this pattern followed for making claims. There were no Standard Operation Procedures (SOPs) for classifying damaged houses under fully damaged, severely damaged and partially damaged. This categorization was carried out without any proper criteria. This resulted in serious irregularity in assessing the damage to houses. The authorities did not take damage assessment and payment of exgratia on a war footing basis. This was highlighted by a Supreme Court constituted Committee that there was a delay in damage assessment of the properties and payment of ex-gratia (Sanjay Agarwal, 2014).

There were six districts in Jammu and Kashmir, where the assessment of damages and need assessment was to be carried out. But only in three districts assessment of damages was done and need assessment was not done in any of the districts which is shown in table 3 below(Performance Audit of Disaster Management in the State of Jammu and Kashmir, 2016)

Table 3: Damage and Need Assessment in Six Districts

Name of District	Damage assessment	Need assessment	Relief disbursed (Status)	Percentage of difference between first and last assessment
Anantnag	Faulty assessment of damaged households.	Not carried out	First assessment in Oct. 2014 showed damage to 11874 households, which then went up to 16933 households in March 2015 assessment and finally the figure was 21053 households in Nov. 2015 assessment	77
			Assessment has still not been completed as 236 cases are still pending	—
Budgam	Loss of agricultural land, crops and livestock was not assessed.	Not carried out	First assessment in Oct. 2014 showed damage to 16651 households, which then went up to 18439 households in December 2014 assessment and finally the figure was 18545 households in Oct. 2015 assessment	11
			Assessment has still not been completed as 2937 cases are still pending	—

Srinagar		Not carried out	First assessment in Oct. 2014 showed damage to 40678 households, which then went up to 76045 households in March 2015 assessment and finally the figure was 96579 households in Oct. 2015 assessment.	137
			Assessment has still not been completed as 3089cases are still pending	—
Poonch	Carried out	Not Carried out	—	—
Jammu	Carried out	Not Carried out	—	—
Udampur	Carried out	Not Carried out	—	—

The assessment, which was carried initially, has a variation ranging from eleven (11) to thirteen (13) percent, which resulted in unnecessary delay in acquiring and arranging relief material, and thus, flood victims could not be provided relief and other assistance on time.

Once the flood victims were provided monetary assistance, their cases were reassessed. It was found that from December 2014 and October 2015, the district administration of three districts Anantnag, Srinagar, and Budgam had changed the status of the damaged houses. Initially, fifty (50) fully damaged Kuccha houses were shown, which latter was changed from Kuccha to Pacca houses. Other ten (10) Pacca houses, which, as partially damaged, their status was changed as fully damaged kaccha houses(Performance Audit of Disaster Management in the State of Jammu and Kashmir, 2016).

Serious misappropriation of funds was done. In the districts of Bugdam and Srinagar, monetary assistance for damaged houses was given to such persons whose cases were not sanctioned by the district administration. The district administration of Srinagar sanctioned 423 cases while district Budgam sanctioned 140 cases, but the tehsil level officers (Tehsildars) of these districts provided monetary help to 1107 and 490 households respectively. In district Budgam, the district administration sanctioned monetary assistance in favor of 1879 households whose cattle sheds were damaged, but tehsil level officer (Tehsildar) of this district assisted 2022 households(Performance Audit of Disaster Management in the State of Jammu and Kashmir, 2016).An amount of Rs 570 crores were allocated by the central government for the reconstruction and repair of damaged kuccha and pucca houses(Kashmir Floods: Centre announces Rs 1600 cr for relief, reconstruction, 2015).

Flooding leads to damage of cultivable land and crops(Intergovernmental pannel on climate change; AR5 Climate change 2014: Impacts, Adoption and Vulnerability, 2014), so as per state norms, monetary help is provided to such small farmers who suffer fifty (50) percent loss to their crop or agricultural land. 2014 flood caused immense damage to agricultural land and crops, particularly in district Anantnag, Budgam, and Srinagar, but the assessment of loss even after a big gap of 18 months since that disaster occurred.

In March 2015, an amount of Rs. 1.83 crores was released for the farmers of district Poonch who were affected during the 2014 flood. This amount was transferred in the official bank accounts of five tehsildars of five tehsils of this district. This amount was not distributed among those farmers until August 2015. Also an amount of Rs. 2.37 crores were assessed for farmers of Haveli Tehsil, but due to the unavailability of funds, this amount could not be released and provided to them (Performance Audit of Disaster Management in the State of Jammu and Kashmir, 2016).

An article was published on 20 October 2017 in the daily Greater Kashmir, which mentioned that still there are several flood victims who are yet to receive any monetary assistance, which was provided in 2015 by the government of India under the prime minister’s national relief fund (Yaqoob, 2017).

7. Institutional Gaps

The institutional gaps in the state of Jammu and Kashmir crippled the ability of the administration to formulate a tenacious plan of disaster management, which would enable quick and timely response to flood and mitigate its impact. There was no separate department for disaster management, and it was the revenue department that had additional responsibility for managing disasters in the state. Although the State Disaster Management Authority was established in April 2007, its full-time members were not appointed due to which the purpose of this institution was not fulfilled. The state had drafted and approved a three-tier (Rescue, Relief and Rehabilitation) state disaster management policy in February 2012, but the same has not been completely implemented. The government did not create a separate department that would deal with disasters only (Basu, 2015). There was no state advisory committee at all when the flood struck the state. In this situation, both the national as well as state plan was not implemented.

8. Lack of Capacity Building Measures

Vital pre-disaster activities that DM Act 2005 envisaged were Public awareness, encouraging general education, training of community members and mock drills. The state administration miserably failed in carrying out these measures.

The central government had sanctioned an amount of twenty (20) crores for capacity building measures like types of equipment and tools for rescue and relief, creating awareness among public and other stakeholders regarding preparedness measures. For this, the central government released 12 crores, but the state administration utilized a mere amount of just 1.79 crores, and a large amount of 10.21 crores remained unutilized. Out of 1.79 crores, which were utilised, an amount of 25.24 lakh was spent for acquiring vehicles which did not come under the category of capacity building measure. No mock drills were carried out by the administration for any calamity (Performance Audit of Disaster Management in the State of Jammu and Kashmir, 2016).

9. Health Care

The flood paralyzed the health care infrastructure in the state, particularly in the Kashmir region. In government as well as in private hospitals, the health system got dysfunctional at all three levels (Primary, Secondary and Tertiary). In the summer capital city, Srinagar four out of five major government hospitals were shut down (Kinjal Rajeshkumar Vithalani, 2017).

GB Pant Paediatric hospital at Sonwar Srinagar was the first hospital where floodwater entered on 7th of September, and by the dusk of 8th September Bone and Joint hospital at Barzulla Srinagar, lonely maternity hospital of Srinagar Lala Ded, SMHS hospital, GMC, Gousia hospital at Khanyar and JVC Jehlum Valley Medical College were also flooded. Wards were created by medical staff in the upper stories of these hospitals. Generators in the basement were providing electricity to these hospitals. When the flood started inundating the ground floor of these hospitals the electricity was cut off due to which various types of equipment and machines which were running on electricity stopped working. Medical equipments which were installed on the ground floor like CT scanners, MRI scanners, Radiography machines, Pathological laboratories, and drug stores got submerged in water. The floodwaters washed away oxygen cylinders at many hospitals. This all resulted in a very serious crisis. There was no immediate evacuation carried out by the administration. In GB Pant hospital, fourteen (14) babies died. Similarly, thirteen (13) patients lost their lives at SMHS hospital. After three days, the first help came but not from the administration but from young local boys who reached these hospitals in boats, and then the stranded patients were evacuated and shifted to SKIMS Soura, the only functional hospital (Hussain, 2014). Post floods there is risk of various other diseases like Vector-borne diseases, Rodent-borne diseases, Mental disorders (depression, anxiety), Posttraumatic stress disorder (Mike Ahern, 2005) and to deal with such situation no measures were placed.

Conclusion

The above points highlight administrative incapacity to deal with nature's fury, and nothing much has changed since the 2014 flood. Despite being a multi-hazard area, the measures which the state administration had taken to face this disaster and to mitigate the losses were not sufficient. There were serious issues in institutional setup. The DM policy was not properly formulated nor implemented, especially for pre-flood management measures. Still we are almost as much vulnerable as we were in September 2014 that can be sensed from a report published on October 10, 2018 on the World Bank-sponsored Jhelum Tawi Flood Recovery Project (JTFRP) which says that out of the total 1580 crore rupees awarded for the project only 2% of the amount has been spent in three years (Malik, 2018). The administration needs to carry out mitigating techniques at earliest to minimize the devastation by future floods. Until now, if any positive thing has happened, it is the growing sense of urgency and awareness regarding the impending danger of disasters among the common masses.

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