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LIVING WITH FLOODS; A STUDY OF DISASTROUS FLOODS IN KASHMIR OF LAST ONE HUNDRED AND THIRTY YEARS (1887-2017)

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Abstract: Kashmir is one of the most flood affected regions of sub-continent. It has a long history of disastrous floods which started from the very origin of the valley. Floods are an inseparable part of kashmir history and are an important constituent of turning it into a disaster zone. The present paper is a historical study of flood events of last one hundred and thirty years. The purpose of the present paper is to look into the causes of floods in kashmir, why kashmir is a flood prone area and why floods turn into disasters in Kashmir? what is the peak flood season in kashmir? to look into whether frequency and magnitude of floods has increased or decreased in kashmir in the said period. also to look into the socio-economic and political bearings of floods on kashmir. The researcher demonstrates that though it is the topography and climate of kashmir which makes it flood prone but it is the decisions that kashmiris have taken from time to time which turn the floods in valley into disasters of immense scale. The frequency of floods has increased as compared to earlier centuries. In last 130 years there have been so far forty two floods many of which have turned into great disasters. Further it has impacted the culture of kashmir. Overall society in the said period has demonstrated to be a therapeutic. The magnitude has increased owing to complex nature of socio-economic set-up, In post 1950's these floods have also impacted politics of kashmir.

Keywords :Flood,kashmir,Disaster Jhelum.

METHODOLOGY

The researcher makes a historical study of last 130 years [1887-2017 A.D] by looking into primary sources of the said period and making use of Chronological and geographical approach and using historical concept of causation. Further though treating floods as natural physical events the researcher by borrowing concepts from vulnerability school demonstrates its ia social phenomena which turns floods into disasters in kashmir. Researcher makes use of sociological concept of corrosive and therapeutic community and disaster impact models of Physical, social, economic and political impact. Overall the research is interdisciplinary in nature.

IMPLICATIONS

The research paper will significantly contribute towards knowledge production about disastrous floods in kashmir. It will prove helpful to the policy formulation about floods in kashmir by identifying the vulnerable sections and areas in Kashmir and also
the physically vulnerable economic sectors of Kashmir economy. Moreover it will also prove helpful to the sociological, economic, geographical and engineering works about floods in Kashmir.

**INTRODUCTION**

Floods are difficult to define. This is partly because there are no natural breaks in nature and partly because flood thresholds are selected based on human criteria, which can vary. A flood is commonly defined as a river overflowing its banks and spreading out over the bordering floodplain. The scientific definition is based on discharge, which is the volume of water moving out a given point in the stream channel per unit of time (cubic feet per second). Flood is not an uncommon thing in Kashmir. Within every few decades there has been a flood of disastrous scale in Kashmir which put a short term as well as long term impact on History of Kashmir. Every aspect of Kashmir history be it political, economic or socio-cultural has been historically impacted by floods. Last one hundred and thirty years has seen this threat only getting more and more increased in frequency as well as magnitude.

**WHY KASHMIR IS PRONE TO FLOODS AND WHY FLOODS TURN INTO DISASTERS?**

It for this goes to the linking of Kashmir to rest of India by Jhelum valley road which made availability of food possible. Post 1900 A.D we don’t see large number of people migrating to other parts of sub-continent in search of food as famine used to rage valley mostly caused by floods or heavy rains. The socially most vulnerable sections are those who live in open at the time of floods like we have in case of flood of 1893 A.D. and flood of 1928. (Maximum number of deaths have been result of drowning in all floods, mostly people being carried out by flash floods).

Economic Impact: Throughout history economic sector has been the worst hit by floods. Floods have rendered an ever increasing loss to Kashmir economy which got more more huge owing to the complex nature of economy with every passing year. Almost every sector has been affected by floods in Kashmir, the important ones are housing, roads and other communications, crops (Rabi, kharif as well as zaid), forests, public heath and power development works. Damage caused by floods is different from other disasters like famine and earthquakes because floods not only leads to collapse of structures and damage to crops but it washes away these things also. Before 1890’s it is almost impossible to give the actual details of damages caused by floods owing to paucity of sources and even post-1890’s we don’t possesses the actual details about estimate of damage. As many reports only provide details about the number of houses collapsed, live stock and human loss and to the damage caused to area under crops also some references are made to relief operations. Another deficiency that these reports have is that in many cases there is no mention of southern districts especially in pre-1950 period. Below is the description of relief and damage caused by some major disastrous floods in Kashmir along Two factors play an important role in making Kashmir a flood prone area. Its topography and climate. The valley of Kashmir is 65 miles long and 2-16 miles broad is situate3d in
western himalayas at a height of 5000 feet above sea level. The valley is a fertile plain, oval in form with almost an unbroken ring of mountains around it. The area of the valley is about 1,900 square miles, while the area within the crest line of mountains as estimated by Drew is about 3,900 square miles. The mountain ranges surrounding the valley generally to a height of about 10,000 feet above the sea level, for the greatest part they rise to a 13,000 feet, while the snowy peak crowning some of them reach higher than 18,000 feet. Nature has shaped the topography on the left bank with sloping ground from river towards the karewas with cultivated land mostly contiguous to river course and a chain of depressions along the karewa foot hills. The spillage on account of major flood fills these depressions and even cause the levels rise towards the river embankments with the result that the whole area from sangam to Padshahi Bagh turns into a sheet of water. Thus the very shape of Kashmir valley which is basin shaped like a cup or saucer makes it flood prone. Thus the entire rainfall which falls is logically to come down further the course of river jhelum which falls down with every feet and its single outlet Khadanyar gorge (whose small shape as always remained a threat in causing floods in Kashmir). In its course from khanabal to the delta the fall of the river is 165 feet in the first 30 miles, and 55 feet in the next 24 miles. From the wular the fall is very slight makes kashmir a flood prone area. Adding to this kashmir situated in temperate zone having enough scope of precipitation results in floods if there is a continuous rainfall for more than twenty four hours. Inadvertent land use changes like urbanization (haphazard planning), encroachment and deforestation have further aggravated the problem and turned floods into disasters.

Impact of floods can be divided into three parts. Upto Sagam, from sagam up to and in city and below city. Upper parts upto sagam are prone to flash floods and here water after causing damage gets washed away, here humans have no role in disastrous floods. From sagam onwards the valley is a low lying area and has always threat of getting flooded. Huge damages are done by floods in this area. Lawrence speaks of a flood triangle in this area with its base at the wular and apex at the panzinara as being especially liable to floods. Arthur Neve writes that it would to be more accurate to designate two triangles. First Having its apex at shalteng and its base at high ground south-west of shadipora. The lowest portions of the swamps in this triangle extend from Ranbirgardhi not for from eighth milestone on th Baramullah road to serai Dangerpora near shadipora. Second, There is then an interval of some miles at at some what higher level, followed by a second triangle of very low ground, with its apex about a mile north of 12th milestone on Baramullah road, and its base at hajin and Tarazo. So it is the decisions that kashmiri’s have taken in choosing a low lying area especially srinagar for settlement which makes it disastrous prone. Going by the view of vulnerability school Floods turning into disasters in kashmir is a social phenomena rather than a wholly physical one. The answer to the question why srinagar was chosen as site for capital can be explained by the thing that it was easily navigable and secondly it has easy access to the lakes which provides a number of vegetables and as kashmir has a long history of food scarcity so this might be the reason. Other important factor in turning floods into disasters is the material used in
house construction, as it was mud and wood so whenever water would enter the houses they would melt having little resistivity to floods\(^7\).

**FLOOD SEASON IN KASHMIR**

There are no periodical rains in Kashmir like that in rest of India\(^8\); thus rains having no season in Kashmir and often behave in a very abnormal way\(^9\), floods too logically don't have a particular season in Kashmir. Flood history of last one hundred and thirty years demonstrates that there have been floods from beginning of March up to ending September.

Thus we see two floods in March, one flood in April, seven floods in May, one flood in June, eight floods in both July and August and seven floods in September. Thus having no particular season but most number of floods have occurred in July, August and September (might be because the mountains in the west of valley seem to catch tail of monsoon of India\(^10\)). In western Himalayan mountain area precipitation is received in two parts\(^11\). Cold weather period (Dec to March) and south west Monsoon period (July to Sep). South west Monsoon rainfall is heaviest at the foot of Kashmir hills facing Punjab and decreases with elevation. Though all parts of Kashmir receive rainfall during these two periods but it is not predominant in Kashmir here cold weather precipitation in form of snow is predominant\(^12\).

### FREQUENCY OF FLOODS

From 1890 onwards Kashmir has continuously been flooded. Prior to this we don't have evidence about more than 35 floods but post 1890 A.D 51 floods have struck valley. Well the alternative explanation might be the nature of history writing in Kashmir where these events were not thought to be having any complex and long term impact. Post 1890 A.D floods occurred in 1891, 1882, 1893, 1894, 1900, 1902, 1903, 1904, 1905, 1907, 1909, 1911, 1928, 1929, 1931, 1940, 1944, 1948, 1950, 1954, 1956, 1957, 1959, 1966, 1969, 1973, 1975, 1976, 1986, 1988, 1992, 1995, 1996, 1997, and 2014. Thus we see frequency has increased and another important thing is that there are few decades floods have occurred more frequently.

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Source (Archives reports of J&k, Irrigation and flood control department reports and newspapers.) (Table-1)
and then there was no floods in next decade like first decade of twentieth century, then sixth decade and last two decades of twentieth century.

Political Impact: Dogra rulers ruled Kashmir upto 1947 AD and in this period the medieval tradition of revenue maximization was continuing, but the frequent floods were hitting hard the state economy on the other hand there were pressing demands from British Residency to do more, but there is no evidence to show that pre 1947 AD disastrous floods had any bearing on political landscape of state. Post 1947 we see mobilisation of politicians thus in 1948 sheikh Abdullah asked centre for relief and the decade of 1950's first time in Kashmir history there was politicization of disasters owing to the conflict between G M Sadiq and Bakshi Ghulam Ahmed especially at the time of flood of 1957 AD and 1959 AD. This continued as politicians after entering electoral politics were now answerable to people or to make floods opportunity to take political mileage out of them.

IMPACT OF FLOODS

Social Impact: Right from ancient times floods have been seen as being divine punishment and this continued in this period. So far as question of mitigation and preparedness is concerned there is no evidence for this. The only societal answer was flight to higher places. In post-1950 we have evidence of active participation of people for self help to plug breaches on jhelum and patrol day night its bund. A curious case is that of Kandizal which authorities used to breach to save city bit post 1970 A.D. people would patrol this place to foil any bid of breaching Kandizal as its breaching would result in damage to crops worth millions of rupees ad for which people were not paid adequate relief. Many European visitors who have written about Kashmir had a poor perception of character of Kashmiris, calling it wicked, cunning selfish etc. It is important to note that some of them like Arthur Neve, Walter Lawrence, Allan Stacey attributed this to the frequent occurrence of disasters in Valley. In this period the overall Kashmiri society demonstrates to be therapeutic, as there were no more food riots or incidents of cannibalism only exception being the hoarding and black marketing which had become a hallmark of Kashmiri business community.

Flood of 1893 AD. Damage 32 humans lives, 329 cattle, 2225 houses, Revenue loss of 64,804 Rs, 25,426 acres under crops were submerged. 89 bridges damaged. Original budget of Kashmir was 1,77,260. Floods necessitated a revised budget which added 2,30,222 and 1,87,700 for Jhelum valley road thus revised budget for Kashmir was 5,28,212 adding to this 43,346 expenditure for city bridge and Rs 64,000 for bund in right bank.
Flood of 1903 A.D by first flood 4934 houses collapsed. State gave relief in the form of Singhara nuts, Cash and timber worth Rs 70,139 adding to this charity of Rs 11,085 for crop damage. State council sanctioned remission of Rs 52,107 as land revenue amounting to Rs 34,846 was sanctioned. For relief operations, central and north Kashmir was divided into two circles: Northern and Southern circle [Anantnag and Kulgam were not included for relief operations]. For northern circle, wood, Singhara and charity amounting Rs 24391 was distributed also in this circle, Rs 185 was distributed by Arthur Neve. In southern circle, timber valued Rs 1451 was provided to victims. By Second flood of Sep. 1903, one sixth of the kharif crop was destroyed.

Flood of 1905: Relief activities were mainly confined to Mirbehri, Mufasil, and city area. Relief amounting to Rs 45,227 was distributed consisting of cash Rs 14,533, Singhara of Rs 11,094 and Taqavi Rs 15,942. By the Sep flood of the same year, more than 45,192 acres of crop got destroyed, six people lost their lives.

Flood of 1928 A.D: 128 lost lives [including 45 Amarnath yatris] 2228 cattle lost [this does not include from mountains and villages], remission of 48,818 maunds of 202 mujwaza villages. Mahraja Hari singh sanctioned Rs Five lakh for various relief works, 1750 houses damaged completely, irrigation head works in all tehsils 23 only in Kulgam and Anantnag, 76 roads, 289 miles in length, 249 bridges damaged suffering a loss of 1,22,000, forest department property loss of 8,11,763. Total cultivated area affected 54,125 acres out of which 39,330 acres were damaged.

Flood of 1948: 6000 houses partially or fully damaged, four lakh acre crop under water. Two lakh eighty five thousand maunds of crop lost.

Flood of 1957: 20 human lives and 2413 cattle lost [this does not include from mountains and villages], 580 villages were affected, 6980 houses collapsed, 74,2113 acre crop area affected amounting damage of Rs 1,27,23,161. Total damage to Kashmir Rs 48,46,225. Relief of Rs 4,42,88.24 provided also Seed Distribution of Rs 2,60,045. Medicine of Rs 16,616 besides army provided various articles of value Rs 3,56,495.

Flood of 1959 A.D: indirect loss [in lakhs], crops 224.42, Buildings 56.88, communication 1.0, livestock 47.09, Irrigation 102.27, electric dept 47.31, forest deptt 111.80, agriculture dept 3.19, Dahat sudhar 5.91 = 648.88 Direct Losses, Land Revenue 2.33, Relief to flood victims 21.84 and relief for human loss as compensation .36 thus total loss = 648.55++24.55=673.10. 77 people lost lives in Kashmir.

Flood of 1966: 9 dead, 43 houses collapsed, 20,000 acre crop [paddy submerged].

Flood of 1969: 53 villages affected, 250 houses damaged, huge damage in Shopian 10,000 fruit trees uprooted. 50 lac damage due to rain.

Flood of 1973 A.D: Indirect loss of 224.61 lakh consisting of crop 57.34, livestock 11.64, buildings 12.07, communications 1.00, Irrigation 114.38, Dahat sudhar 2.27 = 224.61. Further direct loss of 7.02 lakh consisting of land revenue 1.46, relief to flood victims.
1.90, compensation to human loss 3.66=7.02 so total direct and indirect=231.63 lac

Development Minister Mufti Sayed's statement in Assembly on centre granted 2.94 crore of which one crore on affected areas on different works and employment works 1000 houses in valley 13303 villages in state, 57 lakh worth vegetables, 4.75 lakh acre land affected, gross damage 5 crore.

Flood OF 1976 A.D: 38 lost lives, 342 houses fell down, 118 villages completely drowned, six lac rupees released for flood affected people. Irrigation minister 60,000 acre area crops under water.

Flood of 1985 A.D: 10 Died in Valley, 136 villages and 13000 acre under water in anantnag, 42 villages and 1300 acre under water in sgr, 95 villages and 300 acre in sonawari. Statement by irrigation minister.

P.M Indra Gandhi released one lakh rupees.

Flood of 1986 A.D: Governor demanded Rs 50 CRORE from centre for flood restoration, 7 dead, 3883 houses damaged, 594 completely collapsed, 24 houseboats, max damage to srinagar & baramullah.

Flood of 1987 A.D: 4 dead, 20,000 Affected, 50 Crore Rs. damage, finance minister asked centre for RS 35 crore for agricultural renewal.

Flood of 1988 A.D: 65 Dead, 20,000 houses fallen, 6000 cattle lost, 60 crore damage to public property, 37 crore to private, 8 crore worth timber washed away, 6000 houses fell, 100 crore damage, demanded 100 crore from centre.

PM Rajiv ghandhi sanctioned 53 crore.

Flood of 1992 A.D: Public Utility and kharif crop suffered damage Rs 164 crore, standing crop alone 45 crore, 11,185 cattle, 230 bridges and culverts, 36,0000 houses totally or partially suffered damage.

Flood of 1995 A.D: 200 Houses, 40 shops, damaged, 45 villages marooned in budgam, loss over RS 500 Crore. 41 Died, 418 Villages Suffered, 1562 structures, 12 bridges, governor called centre for assistance.

Flood of 1997 A.D: 66 died in state, 75 cattle, 144 villages, 250 houses damaged.

Flood of 2014 A.D: 700 villages remained submerged, 300 persons lost lives, 6.48 hectares of agricultural and horticulural land affected, 3 lakh houses got fully or partially damaged. J&K Govt assessed a damage of 43,595.56 crore and sent to centre for financial assistance.

Thus a survey of damage by floods to kashmir valley makes it clear how much economically floods have impacted the valley. Now there is rise from few lakhs in 1893 to more than 43,599 crore in 2014 AD. The worst hit sector is that of Agriculture and horticulture, PHE, Irrigation and R&B departments. Besides there is ever increasing pressure on forests because after every major disaster state has to provide timber to the victims for house reconstruction. Also important think to note is...
that post-1948 we see state continuously asking for centre government for financial assistance even at times appeals were made to all the citizens of country [like in 1959 AD.]. But in pre -1948 A.D period the relief operations were carried solely with states own resources.

Impact on Tourism sector; floods have a short term impact on tourist inflow because the communication is disrupted by floods and post-1960 A.D there has been increase in post -flood related diseases .One important thing is that most of the tourism attractions are well above flood dander line so they are hardly affected by floods .Except the flood of 1928 A.D when 45 Amarnath pilgrims were carried away by floods. Floods have not resulted into death of tourists.On the other hand we see 1995 A.D when many parts of srinagar were submerged under water but yatra was going on.

CONCLUSION

Floods are thus an unseparable part of kashmir history, as it is topography and climate if kashmir which makes it flood orone ,overall the frequency has increased in last one hundred and thirty years as compared to earlier centuries. The floods have occurred in kashmir from march to September but their peak time of occurrence are the three months of July, August and September. In kashmir we the historical decisions of inhabiting the low lying area or flood prone areas for settlement has made the threat of diaster more real and history demonstrates this fact of turning valley into a disaster zone. In last one hundred and thirty years we see upto 1948 A.D floods hardly made any impact on politics of state except that at times it gave Britishers an opportunity at times to interfere in the affairs of kashmir.Post 1948 A.D we see nationalisation and politicisation of floods. Sheikh Abdullah turned to centre for relief and nationalised the floods then we see owing to sheikh Abdullah’s arrest and the political tussle between Ghulam Mohaamad Sadiq and Bakshi Ghulam Mohaamad the floods were politicised in kashmir. Floods have impacted every aspect of kashmir history. Society has deeply been effected by floods and have formed its own disaster culture in kashmir. Post 1950 we see community participation in combatting floods and overall kashmiri community has demontrated to be therepeutic in this period except the aspect of hoarding, black marketing and price rise due to artificial scarcity of grains which dominated the scene after every flood. we see that not so many people have been killed by floods in kashmir and death toll has never crossed 300. Overall major part of deaths have been due to drowning, most vulnerable being either residing near nallahs or people who reside in open at time of floods or who visit their lands at time of floods. Economy has been the worst effected sector in kashmir and with every passing floods the devastation caused by floods has only increased immensely especially post 1990s. With agriculture, engineering works and communication being the worst hit areas. Post 1900 AD we don't see any famine visiting Kashmir which was earlier a hall mark of floods in ancient and medieval kashmir. Regarding economic impact one important thing is that we see same areas and same sectors of economy being hit again and again .Economic sector over last few decades has become more vulnerable owing to inadvertent land use patterns like
haphazard urbanization, encroachment and deforestation further owing to economy becoming more and more complex we see the magnitude of damage caused by floods has immensely got aggravated.

References

5. Lawrence Walter, ibid, pp.25.
7. Ibid.
11. Ibid, pp.31
12. Ibid.
13. *Administration reports* from 1890 to 1960,*Irrigation and flood control reports*, Harris report, Uppal report, Master plan 1959 AD and *newspapers* from 1947-2015 AD.
17. Lawrence Walter, opcit, pp. 207.
19. Lawrence, op cit, pp 207
21. Ibid. pp 50-51
22. Harris Report, op cit, PP 3&4
29. Harris, op cit, pp 12,13.
32. ibid pp.13.
33. Master Plan, op cit, pp11,12.
37. Khidmat, urdu daily, 16 may ,1969.
38. NEWS, Nau kashmir publications may 11,1969.
42. Srinagar Times , urdu daily, 8 august, 1976.
43. Srinagar Times ,6 august,1976.
44. Srinagar Express,Urdu daily, 9 august 1976.
46. Aftab 22 july , 1985
47. khidmat 3 may,1986
48. kashmir times, 4 may, 1986
49. ibid, 13 June ,1987
50. Hamdard 16 june ,1987
51. Nawai e Subu, urdu weekly , 11 june ,1987
52. Roshni, 30 september ,1988
53. Ibid , 10 october, 1988
54. Aftab ,08 October ,1988
55. Ibid ,16 october,1988
56. Kashmir Times, sep 22, 1992
57. Ibid , 30 july, 1995
58. ibid , 1st august 1995
59. ibid , august 4 ,1995
60. ibid , 31 august , 1997
61. ibid ,30 august, 1997
63. Harris op cit,pp11.