

MITIGATING FLOODS IN KASHMIR IN THE CONTEXT OF KNOWLEDGE PRODUCTION AND ADVERSE SOCIO-ECONOMIC CONDITIONS

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Abstract—Floods have been occurring in Kashmir since very beginning, but hardly any steps were taken through centuries to contain these floods. It was towards the end of nineteenth century that State began to take steps to contain the disastrous impact of these floods. The researcher goes through the primary sources [Archival Sources] to look into the things like how the concept of flood management evolved in Kashmir? What steps were taken from time to time for flood management? And why what compelled state to look only for short term steps to contain these floods. The researcher demonstrates that solution to flood problem in Kashmir has always been relative to knowledge about floods in Kashmir and adverse social and weak economic conditions. The researcher demonstrate that it was the presence of European officials in Kashmir and the services that were made available by Maharajas that made the crucial difference of producing knowledge about floods in Kashmir. For a long time no solution could be put forward owing to absence of proper knowledge about hydraulics of river Jhelum. It took experts about 80 years [1894-1975] to fully comprehend the flood problem in Kashmir. The solution to flood problem has been relative to socio-economic conditions of State, as State could neither afford technology nor carry permanent measures as suggested by experts like Tej Bahadur, Dr. Uppal, Er. G.H. Khan, from time to time because of adverse socio-economic conditions and thus had to take recourse to short-term measures.

“1. INTRODUCTION”

Flood problem is as old in Kashmir as the history of Kashmir, but hardly for a longer part of history any steps were taken to mitigate these floods. In ancient times the single evidence we get is from Rajatarangni where Kalhana has referred to the flood control and land reclamation steps taken by Suyya during Awantivarman's period¹, however even this proved to be temporary and within a short span of 34 years another disaster flood struck Kashmir². We have no evidence regarding any flood control steps taken in medieval times³.

Flood mitigation is a modern concept in Kashmir. It started during the second half of 19 century the important thing to

note about this is that the knowledge production about floods and mitigation steps went hand in hand.

“2. OBSERVATIONS”

It started in 1888 A.D when a detailed survey and level of the town was commenced to serve the projects of drainage, water supply and protection from inundations. This was discontinued after some time for want of funds.⁴ The presence of European officials in Kashmir made the crucial difference of conceptualising flood problem in Kashmir, their initial interest was in the existing embankments in city. Walter Lawrence first of all proposed two line of embankments, first to keep away small floods and second to keep away all floods.⁵ In November 1893 Captain C. E. Capper, whose services were made available by state was asked to carry a survey with a view to ascertain if any relief channel could be dug to take off Jhelum water to lessen danger to city, at that time captain Capper thought it impracticable.⁶ In 1900 Er. J.E.Capper prepared a report for running flood water clear of city. This scheme became basis for Srinagar Flood Spill Channel.⁷ Again In 1902 A.D State engineer proposed to P.W.D member of State Council to lower Jhelum below Baramulla by 8 feet,⁸ though at this time no interest was shown towards this but later on from 1907 attention was given towards this, When dredging work was started.⁹

It was after the flood of 1909 that State administration began to look more interestingly towards flood problem and State engineer was asked to provide a detailed report and even to sort services of engineers from British India. One of the earliest things that we come to know about flood problem was the presence of pier bridges which according to State engineer obstruct 1/3 water in the Jhelum, besides houses, bathing ghats, steps, landing etc. add to this.¹⁰ In 1900 A.J. de Lobtinere, asked for grant of Rs 25000 to improve flood spill channel and for other purposes but this could not be done.¹¹

Serious effort was made by state with the invitation of R. Purves in 1913, who submitted report in 1915, though he made few recommendations but no final recommendations could be made owing to non-availability of hydraulic data in valley, he emphasised the need for collection of further data to observe small changes even in the river regime which according to him required extreme watchfulness.¹² This is how knowledge about floods and mitigation steps are related in Kashmir. In 1928 divisional engineer Tulsi Dass put forward his proposals regarding flood prevention but these were out rightly rejected by the government and services of D.G. Harris were made available.¹³ Harris's scheme was to cost Rs 18,00,000, his scheme mainly aimed at protection of city of Srinagar which was one of the terms of his reference in preference of safeguarding of agricultural lands from depredation of recurrent floods. The report was discussed by several committees and certain proposals made by him were also sanctioned by govt but its main recommendations were never carried out¹⁴ In 1939 Retired executive engineer Rai Bahadur Tej Ram submitted his proposals whose essence was improvement by widening, deepening and cut off of main river. Tulsi Das, then chief engineer reject it as he did not consider it satisfactory, practicable and reliable solution within financial position of state.¹⁵

With the formation of responsible govt. the flood problem was given more attention and in 1948 services of Dr. H.L. Uppal were made available. The entire scheme was calculated to cost 4.5 crore in 1954, it was discussed between chairman of central water commission, state engineer and Dr. Uppal, decisive conclusions were reached on non-controversial parts and priority programme was laid.¹⁶

A Master Plan for Flood control was prepared in 1959, a number of difficulties which often led to disagreement among experts were witnessed at the time of its preparation, which arose due to lack of flood routing studies which could not be taken for want of up to date contour maps of the valley, so 5 ft and 2 ft. Contour maps of valley were got prepared by India Survey department.¹⁷ The cost of proposals was estimated approximately 21 crore.¹⁸ To analyse the work done under Master Plan and suggest changes a High Level Flood Committee was appointed in 1975-76. It re examined and reappraised the master plan.¹⁹

“3. STATE, MITIGATING FLOODS AND ADVERSE SOCIO-ECONOMIC CONDITIONS”

The approach of State has been to work on short term measures and owing to socio-economic compulsions and implications non-conformity with permanent and long term measures.

“4. SHORT TERM MEASURES”

Removal of Pier Bridges in Srinagar, To carry water safe of Srinagar, Dredging in Jhelum, wullar and Khandayar, Strengthening and raising embankments [bunds]. From 1890

onwards these measures began to be taken, but from 1950 these were taken on a higher scale and were funded by G.O.I, dredgers were commissioned by Central Govt and got from America. Flood control Department was brought into existence, Similarly for dredging Keshav Bandhu was appointed project officer at Sonawari and every department was Kept under him.²⁰ It is important that both before and after Independence dredging gave temporary relief [increased capacity of Jhelum, Flood Spill Channel and Wullar] and after this it was sidelined like in 1916 as well as in 1966 and 1980's.

“5. LONG TERM MEASURES”

From time to time different long term and permanent measures were suggested by experts like Construction of Reservoirs in South by Purves, Cut line proposal by Teg Ram and G.H. Khan, and most important recommendation of Supplementary channel from Dogripora to wullar by H.L Uppal.

These were the permanent measures which could have ended flood problem for all time in Kashmir especially Dr. Uppal's scheme, but it had too many problems.

“6. SOCIAL COMPULSIONS AND IMPLICATIONS”

Huge section of population needed to be dislocated for this purpose,²¹ there was also threat that in case reservoir or supplementary channel developed any breach it could have put danger to a huge section of population also short sighted big landlords with vested interests have always interfered in this thing.²²

“7. ECONOMIC COMPULSIONS AND IMPLICATIONS”

To carry out these high cost projects economic compulsions have been the dominant thing. Almost every time State put forward its weak economic conditions to carry out these projects, be it Harris's, Tej Ram's, uppal's or G.H.Khan's recommendations. Moreover with every passing day rising prices made more difficult for state to carry out these recommendations. Besides there were legal issues too in acquisition of land. The economic conditions of the state can be understood from the fact that the machinery required had to imported from foreign which was very costly. Sanitary Department, Hydraulic Division and engineering department were brought into existence after Harris's report by State, but these departments were axed and all the machinery was sold at cost of earth,²³ owing to the economic depression of 1928 A.D. Similarly P.M Sheikh Abdullah in 1948 requested MR. Nehru, to commission a dredger²⁴ as State could not afford it, it was commissioned in 1957 and it cost about 3.25 crore, though under First Five Year Plan state was allotted just RS. 13 Crore. So in these type of weak economic conditions it has always been difficult for State government to carry out these costly measures

“8. Conclusion”

The mitigation steps to contain flood began to be taken from 1880 onwards, the knowledge production and mitigation went hand in hand, State always looked for temporary short term proposals as adverse socio-economic always compelled state to go for permanent measures

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