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PAST AND CURRENT STATUS OF WATER BODIES OF DISTRICT SRINAGAR, KASHMIR: FIELD SURVEY

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ABSTRACT

Kashmir, well-known for its beauty globally is gifted with water resources comprising rivers, lakes, springs and streams. There are around 1230 water bodies in J&K including major lakes such as Wular, Dal lake, Manasbal lake and others. Jhelum river is the main river in Kashmir, covering about 15,856 km² including numerous tributaries. We know Lakes provide a multitude of uses and are prime regions of human settlement and habitat. In present study; we discuss various water bodies of district Srinagar of Kashmir valley and their present status. The data was collected for the present study from published resources, internet and field surveys. The study revealed that the water bodies of district Srinagar i.e., Dal lake, Anchar lake, Khushalsar lake, Nigeen lake, Jhelum, once clean water bodies have fallen victim to extensive encroachment, garbage dumping, climate, over-extraction of ground water, change and the release of untreated sewage. We need to protect our water bodies as they have importance in our lives. It is concluded from our study that it is the responsibility of Lakes and Water Ways Development Authority, SMC, NGO's, Religious leaders etc to speed up the rehabilitation process. The preservation of water bodies in J&K is very crucial for environmental sustainability.

KEYWORDS: Kashmir, Dal lakes, Jhelum, Nigeen lake, Khushalsar lake, climate change

INTRODUCTION

In the 3rd century BCE, Mauryan Emperor Ashoka founded Srinagar and brought Buddhism to Kashmir. Srinagar city was established at the village of Pandrethan and served as the capital of Kashmir. The valley of Kashmir is indeed rich in water bodies, boasting numerous lakes, rivers, and springs. Unfortunately, in and around Srinagar half of the water bodies have disappeared over the last century under the pressure of rapid, and badly managed, urbanisation. Srinagar, the summer capital of Jammu and Kashmir, hosts a diverse network of freshwater ecosystems including Dal Lake, Anchar Lake, Brari Nambal, Khushalsar, Gilsar, and Hokersar Wetland. These aquatic systems, primarily located along the floodplains of the River Jhelum, have historically functioned as ecological hotspots and supported vital socio-economic activities such as agriculture, fisheries, tourism, and transportation (Pandit, 1982; Bano et al., 2018). In addition to harboring endemic biodiversity, these wetlands serve as critical habitats for migratory birds from Europe, Siberia, and Central Asia, and provide essential ecosystem services such as freshwater provisioning, nutrient cycling, and flood mitigation (Romshoo & Rashid, 2014).

Among these, Dal Lake stands as the most prominent and culturally iconic water body in the region. Located in the heart of Srinagar, the lake has long sustained the livelihoods of thousands through tourism, fishing, floating agriculture, and houseboat-based hospitality (Lawrence, 1895; Ahmad et al., 2020). However, over the past several decades, Dal Lake has experienced severe ecological degradation driven by escalating anthropogenic pressures, including rapid urbanization, discharge of untreated sewage, encroachments, and land-use transformation (Mushtaq et al., 2020a; Rashid et al., 2017). The deterioration is evidenced by declining dissolved oxygen levels, reduced water transparency, and increased concentrations of pollutants such as phosphates, nitrates, and heavy metals (Kundangar & Abubakar, 2004; Gulzar et al., 2020; Rather & Dar, 2020a). The spread of aquatic weeds and nutrient loading has driven the lake toward a hyper-eutrophic state, threatening its biodiversity and diminishing both its aesthetic and economic value (Khan & Ansari, 2005).

Despite interventions including the establishment of sewage treatment plants (Qayoom et al., 2021), de-weeding measures (Kundangar, 2003), and dredging activities (Mir et al., 2018), the lake continues to decline due to fragmented governance and the absence of long-term ecological monitoring (Mushtaq et al., 2015; Chowdhury, 2018). Historically spanning approximately 75 km² in the 13th century, the lake has shrunk significantly, now covering only 24 km² due to encroachments and the expansion of settlements (Rashid et al., 2017a). Sensitive macrophytes such as *Euryale ferox* and *Chara* spp. have vanished under increasing pollution and eutrophication (Lawrence, 1895). Although local boatmen (Ha'enz) have been blamed for altering the lake's land use, policy failures remain a significant factor in the lake's degradation (Fazal & Amin, 2012). Presently, Dal Lake consists of approximately 10.5 km² of open water, 8.64 km² of aquatic vegetation, 2.89 km² of floating gardens, and 2.02 km² of settlements (Rashid et al., 2017a). The presence of about 1,200 houseboats continues to be a major contributor to untreated sewage and nutrient load (Tanveer et al., 2017).

Anchar Lake, located roughly 14 km northwest of Srinagar, has also suffered from drastic shrinkage and ecological stress. Once spanning 19.54 km² in the late 19th century

(Lawrence, 1895), its current area has reduced to approximately 4.26 km². Fed by the Sindh stream and Achan Nallah, the lake's water quality has deteriorated due to sewage inflow, solid waste dumping, and encroachment (Najar & Khan, 2012).

Similarly, Brari Nambal, a marshy lagoon linked to Dal Lake, has experienced hydrological disruption following the infill of the historic Mar Canal in the 1970s (Wani et al., 2014). Currently, it receives partially treated sewage from a malfunctioning treatment plant, pushing the wetland to near extinction (Mukhtar et al., 2014).

The twin lakes of Gilsar and Khushalsar are severely degraded due to sewage influx—estimated at 465 million liters per day—illegal encroachments, and aquatic weed proliferation. These factors have resulted in a drastic loss of water quality and habitat.

Hokersar, known as the "Queen of Wetlands" in Kashmir, is a designated Ramsar site and an important staging ground for migratory birds. Located west of Srinagar, the wetland plays a critical role in water purification, carbon sequestration, and hydrological regulation (Romshoo & Rashid, 2014). However, its area has decreased from 18.75 km² in 1969 to 13 km² in 2008, due to anthropogenic disturbances and siltation from deforested catchments. Native macrophytic diversity has also declined, with invasive species now dominating the wetland vegetation (Bano et al., 2018).

Study Area: In J&K we have 20 districts in total, with 10 districts in Kashmir region and 10 in Jammu region. The present study was based on district Srinagar of Kashmir region.

RESEARCH METHODOLOGY

This study is mostly based on the information collected from secondary sources during 2025. The primary data was collected from surveys, group discussion with people who reside around water bodies, people who visit these water bodies and share their experiences and knowledge. The information for this research paper has also been collected from the government sources available online on their official websites. In addition to this, the data has been collected from journals, articles and newspapers.

RESULTS AND DISCUSSION

Jammu and Kashmir is well known worldwide for some of its significant water bodies.

These water bodies and the surroundings nearby are often used to spend quality time in quiet atmosphere. Further, these water bodies of Srinagar act as a catalyst of revitalization away from the daily dull life routines. These water bodies not only display the breath taking beauty they possess but the visitors can also engage in a variety of adventure sports to make the most out of their water bodies site experience. Some of the activities are as under:

Picnic Spot: The surroundings around the water bodies of Srinagar are usually lush green making it suitable for people to spend time with family and friends by just spreading a small sheet, wrapping up meals in a picnic basket and enjoy the serene beauty.

Photography: To make memories out of the visit to these beautiful water bodies, the best way to capture the moment forever is by clicking the pictures and storing them in the mobile phones or the camera. The picturesque surroundings attract every nature lover to capture stunning shots so that they can share it with others. This not only creates a memory but also displays the beauty of the place to people who see it and crave to explore the place as soon as possible. In a way it's a personal experience helping to promote the tourist rush to the site.

Relaxation: The melody in the sound of moving water and the peace and serene atmosphere around gives a sort of solace to a human soul. People can just close their eyes, lie back and forget about the worries and stress of life and relax as if there is nothing between them and nature just peace and only peace around. .

In this study, we try to bring to fore the importance of water bodies of district Srinagar, Kashmir and their impact on the valley economically and socially.

Hokersar: Once known as the ‘Queen of Wetlands’, Hokersar is situated at an altitude of 1500 m a.s.l. with geographical coordinates 34° 05'2 N, 74° 43'2 E, about 10 km west of Srinagar city. Hokersar is a permanent eutrophic wetland, once an obov, surrounded by freshwater marshes on the flood plain of the River Jhelum in the Kashmir valley. The wetland is drained by a channel to the Jhelum river at Sozeth Narbal village and is fed by permanent streams, the Doodganga, Sukhnag and flood waters. It reaches a maximum depth of 1.1 m in spring, minimum 0.4 m in autumn and is filled with the migratory birds who prey on fish and insects in this protected territory. Hokersar wetland has been declared as Conservation Reserve under the Jammu and Kashmir Wildlife (Protection) Act, 1978 and was also declared as Ramsar site on November 8, 2005 under the Ramsar Convention. At present, a number of management programmes including the construction of bunds and installation of a sluice gate are in progress, yet the wetland continues to be under the biotic stress. The encroachment of wetland have reduced its area from original 1300 ha to 900 ha and as a result of cultural eutrophication the Hokersar wetland is deteriorating at an alarming rate. This wetland is on the brink of extinction as per various environmentalists as well researchers, if not cared. It is encouraging Govt as well as NGO's are working for its conservation.



Gilsar Lake: It is located in old Srinagar connected to Nigeen Lake and Dal Lake through Nallah Ameer Khan. It was amongst the famous wetlands in district Srinagar surrounded by springs locally known as Mukhta Pokhar, Haji pokhar, Doodh Poakhar, Yandea Juwin Poacher and Vechernaag which were flowing through Nowshera, Chana Mohalla, Renzu Sathoo and thereafter meets Gilsar lake which flows from Gil -Kadal and there it meets with Khushal -Sar and reaches Anchar -Sar.

In Sanskrit, the term “Pokhur” signifies a water source. The names “Mokhta Pokher” and “Dodhe Pokher” communicate qualities of purity, cleanliness, and pristine beauty.



“Mokhta,” meaning Pearl, and “Dodh,” meaning Milk in the local language, are reflective of the clarity and purity of these water sources. These water bodies remained true to their names until the 1990 as per elders of the area. These springs were the source of fresh water to the Gilsar lake and thereby used by the people for their disposal. This water body was habitation not only for birds but for a large species of fish and there was a good production of Nadru (lotus stem) which was a source of economy for people living around this water body. This water body needs much more care as at present this is on the verge of death as all the springs which were the source of fresh water to the wetland have lost their route under the water table due to encroachments and have dried thereby almost stopping the supply of fresh water to the Wetland.

Khushal Sur: This water body located in district Srinagar of Kashmir valley, stretching from Zoonimar upto Aali Masjid and connected to Anchar Lake via small channel which is its primary outflow. Gilsar is also connected to khushalsar and its maximum length according to authorities is 1.6km (0.99 mi) and its maximum width is 0.6km(0.37 mi) with surface elevation of 1,582 m (5,190 ft). The wetland was used as the medium of transportation earlier and people used to collect the food and other exploitative materials from it. The water was fresh, tasty and people residing adjacent to this wetland used to drink this water. People used to enjoy the serene view of this wetland, it served as a habitation not only for birds but for a large variety of fish. At present the wetland is on the verge of death as all the springs which were the source of fresh water to the wetland have lost their connections under the water



Table and lost the track, thereby stopping supply to the wetlands. Today the water stinks as it is full of pollutants and is filled with sewages flowing from every household. Thus the wetland is in such a battered and ramshackle

condition that, If not taken care, this precious water body of Srinagar will disappear very soon. **Anchar Lake:** Once a pristine jewel in the Kashmir Valley, Anchar Lake, now stands as an ecological disaster, its demise marked by severe pollution, rampant encroachment, and unauthorized constructions around the banks of lake. Connected to water body Dal Lake, the environmental decline of Anchar lake is complete, transforming it from a scenic waterbody into a tragic symbol of environmental degradation. Despite being a vital part of the local hydrological system, the lake's irreversible decline, exacerbated by the clogging of crucial water channels, has

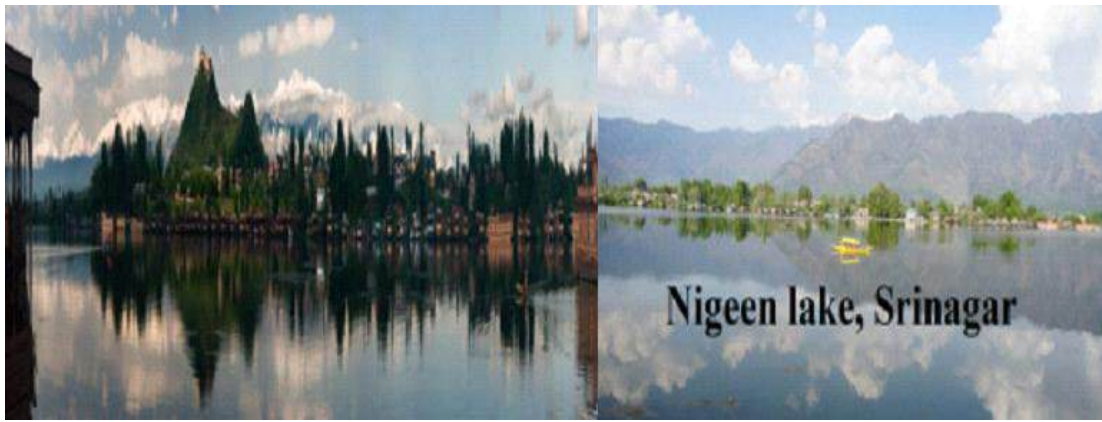


Rendered it a shadow of its former self. Anchar lake is very important lake of the district Srinagar, connected to Khushal-Sar which meets Gilsar at Gil-Kadal and further meets Nallah Ameer khan which is connected to Dal-Lake. The Lake has its authenticity and covers a vast area in the vicinity. It starts from Soura and there by extends to Ali-Jan road and meets further with Wular lake, Bandipora. The Anchar lake and its subordinate wetland as per elders of the area were filled with crystal clear water which people used for their daily use. This water body was used as the medium of transportation by people, by riding boats in them and used to collect the food and other exploitative materials from it. It served as a habitation not only for birds but for a large variety of fishes. There was a good production of Nadru as well as fish which were source of economy for the people living around lake. At present the Wetland has been converted into Garbage dumping spot not only by the people living around these wetlands but the biggest Hospital of the valley falls in the ambit of the water body has added fuel to the fire by dumping sewage of hospital which is extremely unhealthy and dangerous for this water body. The fishes are nearly nowhere in the water, all the vegetations are either extinct or on the verge of extinction. The bad condition of the lake can be accessed by a common man who passes by because it emits foul smell making it unhealthy and unbearable for the people living around this lake. The water body is on the verge of death. It is suggested that mass awareness programs should be conducted by the government and other responsible agencies regularly which will help the community to contribute in saving this water body. **Dal Lake:** Dal is a lake in Srinagar (Dal Lake is a misnomer as Dal in Kashmiri means lake), the summer capital of Jammu and Kashmir region. It is believed by some geologists that this the remnant of a Pleistocene oligotrophic lake, once covered the entire Kashmir valley. Dal lake was formed due to flood spillage from the Jhelum River, is other theory of origin of Dal lake of Srinagar. The inflow channel of Dal is Telbal Nallah from Marsar lake and there are many springs in Dal. The primary outflows are Dal Gate and Nallah Amir Khan. This urban lake, is integral to tourism and recreation in Kashmir and is named the "Jewel in the crown of Kashmir" or "Srinagar's Jewel". The lake is also an important source for commercial operations in fishing and water plant harvesting. The shore line of the lake, is about 15.5 kilometres (9.6 mi), is encompassed by a boulevard lined with Mughal era gardens, parks, houseboats and hotels. Scenic views of the lake can be witnessed from the shore line Mughal gardens, such as Shalimar Bagh and Nishat Bagh built during the reign of Mughal Emperor Jahangir and from houseboats cruising along the lake

in the colourful shikaras. During the winter season, the temperature sometimes reaches -11°C (12°F), freezing the lake. The lake covers an area of 18 square kilometres (6.9 sq mi) and is part of a natural wetland which covers 21.1 square kilometres (8.1 sq mi), including its floating gardens. The floating gardens, known as "Raad" in Kashmiri, blossom with lotus flowers during July and August. The wetland is divided by causeways into four basins; Gagribal, Lokut Dal, Bod Dal and Nagin (although Nagin is also considered as an independent lake). Lokut-dal and Bod-dal each have an island in the centre, known as Rup Lank (or Char Chinari) and Sona Lank respectively. The houseboats are closely associated with Dal Lake which provide accommodation to tourists in Srinagar. The researchers reported that *Schizothorax niger*, *Schizothorax curvifrons*, *Pethia conchoni*, *Botia birdi*, *Labeo dero*, *Schizothorax micropogon* and *Schizothorax esocinus* fish species are present in Dal lake.



Nigeen Lake: Nigeen Lake, located to the east of the city of Srinagar, at the foothill of the Zabarwan Mountain in Srinagar is a deep blue water offshoot lake of Dal Lake that is interconnected by a thin causeway. The Nigeen Lake of Srinagar is surrounded by a large number of willow and poplar trees. Hence, it has come to be referred as a "nageena", which means "the jewel in the ring". The word "nigeen" is a local variant of the same word. The Shankaracharya Hill on the south and Hari Parbat on the west enclose the Nigeen Lake offers breathtaking views to the visitors. This lake is flanked by beautiful willow, poplar trees and a good numbers of houseboats, shikaras can be seen in Nigeen Lake where tourists enjoy their peaceful vacations. Nigeen lake, unlike Dal Lake is a calm, serene and peaceful place. Tourists, apart from houseboat staying and shikara ride, can also enjoy water skiing, motor rides and sailing over there. The Nigeen lake is located adjacent to the Hari Parbat hillock, to the west of the Dal Lake. To its north and west, lie the localities of Baghwanpora and Lal Bazar while to its north east lies the locality of Hazratbal, which is known for the famous shrine. Currently, the lake is a major tourist attraction in Srinagar, known for its relatively pristine waters as compared to the Dal Lake. Houseboats and shikaras are a usual sight. It's also ideal for swimming, being deeper and less crowded than the Dal Lake. However, as is the problem with other water bodies in the Kashmir Valley, the lake also suffers from encroachments which are deteriorating its water quality and also increasing the risk of floods. As such, the government of J&K is engaged in taking steps to help improve the condition of the lake and restore it to its original glory.



Brari Nambal: Brari Nambal, also known as Bab Demb, an important part of Dal Lake and Shahr-e-Khaas is a small freshwater lake located in district Srinagar of Kashmir valley. It is connected to the Dal Lake Srinagar via a channel and is therefore sometimes referred to as a lagoon of the Dal lake. According to historians, 14th century King Zainulabidin, popularly known as Budshah, was so impressed by the beauty of Brari Nambal that he built Hamams on banks of Brari Nambal. The lagoon possessed crystal clear waters and for many centuries people used to have steam and herbal bath in Hamams there. The Hamams have vanished under encroachments and heaps of garbage dumps. The lagoon was an example of engineering excellence. The waters of Dal which originated from Dachigam Rakh flowed to the Brari Nambal via Nowpora. Sultan Zain-ul-Abidin closed the lagoon's three peripheries and dug up a new canal known as Nallah Mar, stretching from Baba Demb to Aanchar— making a water way through a cluster of houses and shops alongside its banks. Lagoon, before filling up of Nallah Mar, was a part of main outflow channel of Dal lake which was helping to regulate Dal waters and save its inhabitants from floods. The lagoon was also a major route of inland water transportation system in the summer capital of J&K.



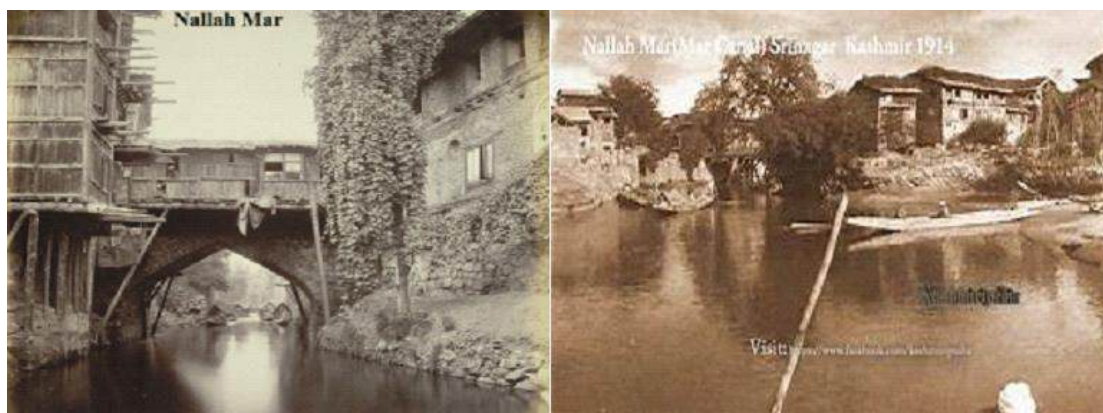
Brari Nambal until the 1970s, had a primary outflow in the form of the Mar Canal, but after the landfilling of this canal, the lake began to lose its glory. It is currently in highly deteriorated condition while efforts to revive it are on. The restoration of Brari Nambal is considered to be ecologically important as it helps to regulate hydrology of Dal lake by releasing its surplus waters into river Jhelum via a conduit at Fateh Kadal area of district Srinagar. In absence of conservation measures, the lagoon has turned into a cesspool. Piles of garbage, obnoxious weeds besides extensive encroachments have severely affected its fragile eco-system. The conservation measures like dredging of Brari Nambal and other outflow channels will help to restore natural drainage of Dal Lake and improve its water quality.

Nallah Amir Khan: It is a natural water channel that connects several lakes, including Nigeen Lake, Khushal Sar Lake, and Gil Sar Lake. Unlike man-made structures, Nallah Amir Khan is part of the region's natural hydrological system, playing a crucial role in maintaining the ecological balance of these lakes. The channel supports the aquatic life and ecosystem of the connected lakes. Many small streams originating from district Ganderbal and various directions used to channel their waters into Nallah Amir Khan. Unfortunately, their destiny mirrors that of Mukhta Pukhri and Dodh Pukhri, as they too have been irrevocably transformed into polluted drains. This outcome aligns with the prophecy of a fifteenth-century saint of Kashmir known as ‘Alamdar-e-Kashmir‘ (Flag Bearer of Kashmir), who foresaw the ominous prediction: “Waethe Hokhan Haener Grazan—Teli Maale Aasi Wandar Raaj” (Rivers running dry and gutters roaring would be the result when the apes are in control.)The locals of the Nalbal area told that LAWDA needs to work



more as accumulation of the garbage is proving hazardous to their health. Elders of the area told that cleaning the Khushal Sar and Gilsar is of no use unless and until the upper side of the water body is thoroughly cleaned. The elders informed during our field visit that they used to drink water from this Nallah and we used to catch fishes from this Nallah in huge quantity. They, further informed fish production decreased due to pollution, encroachment, unlimited pesticide use and overfishing. To save this water body, authorities must take appropriate measures to deal with pollution and other problems.

Nallah Mar (A Streen Buried)



The Mar, as it is locally remembered in Kashmir, was a water channel, connecting the lagoon of Baba Demb to Khushalsar lake and to Jhelum river near Waniyar, Noorbagh on the western fringe of the old city, constructed by Zain-ul-Abidin in 1500's. The old city of Srinagar actually has grown on a couple of miles on either side of the Nallah Mar. In old town Srinagar, a major road was constructed by filling up a canal, Nallah Mar, traversing the city. Srinagar, once known as Venice of East, had many streams crisscrossing the town and Nallah Mar was as important for it as a Jugular vein. Decades later, the city is striving to recuperate from the loss of Nallah Mar. The burial of Nallah Mar led to stagnation of Brari Nambal lagoon and choked the world famous Dal Lake. Brari Nambal, which had clean fresh water, over the years turned into a stinking cesspool. Nallah Mar began from Brari Nambal lagoon and had two diversions. One passed through Eidgah into Khushalsar, Gilsar and finally emptied into Anchar lake and, other through Noor Bagh into the River Jehlum. Nallah Mar, in earlier times, was always busy with activities. Dr. Abdul Majeed Kak, Islamia College of science and Commerce, Srinagar, once in discussion told that "When I was young, I have witnessed the movement of Shikaras and light houseboats carrying passengers and goods (through Nallah Mar)," . The stream was built during the reign of Sultan Zain-ul-Abidin popularly known as Budshah in 14th Century. Till 1970's Mar was living with all glory but what researchers term as the greed of people and callousness of authorities it started to get deteriorated to the level that it never was revived. It was told that "With political support the residential houses and business establishments were constructed on two flanks of Nallah Mar that led to its choking,"

The unattended Nallah Mar started to stink after which authorities decided to fill it up instead of getting it revived.



The photograph taken by Samuel Bourne in the 1860s, shows the Marqal of Srinagar surviving with the population, clean and flowing. The photograph is part of the British Library collection on Kashmir.

Zareef Ahmad Zareef, famous Kashmiri Poet and chairman valley citizens council said that, "In GM Sadiq's regime the Nallah Mar was left to stink and then in 1975 business of filling was done by Sheikh Muhammad Abdullah," The Nallah Mar was important business centre and easy way of transportation. Muslims used to go to Qamar Sahab (RA) and Pandits to Kheer bawani via the Mar and everything needed was made available through this waterway. The poet also said, "Agar Jehlum Chu Dil Srinagaruk, Nallah Mar oaus Jigar amuk (If river Jehlum was Srinagar city's heart, Nallah Mar was its soul)." We know many bridges were laid over the stream including, Nowpora Kadal, Naid Kadal, Bohri Kadal, Saraf Kadal, Kaid Kadal, Rajouri Kadal, Kaw daer Kadal, or Pachi Kadal, Dumbi Kadal, Taribal, Narwar (Buti Kadal)," The historians blamed that the Nallah Mar lost its

existence to the political rivalry resulting Kashmir to lose an important heritage. The elders of the area told that, the additional road space was the only benefit of filling Nallah Mar but we paid a huge price in the shape of lost heritage besides economic, social and ecological loss. We lost all the bridges and traditional houses around Nallah Mar. The Mar in absence of adequate vehicular transport in the city was used for water transport; for moving grain, goods, construction material etc to ghats (shops), as well as by people, for movement and for pleasure. Nallah Mar was also used as a floating vegetable market with the fresh produce from the Dal lake being sold from the boats floating in the Mar. The waters of the Mar were also used for drinking, bathing and ablution. The ghats along the Nallah Mar were popular gossip centres.

Chount Kul, Sonar Kul, Keiti Kul: There were a number of clean water bodies in r like Chounti Kul, Sonar Kul, Keiti Kul etc in downtown Srinagar, people around these water bodies used to drink water as well as bath in these water bodies whereas women folk used to wash clothes or utensils at the tributaries as reported by elders. At present, situation of these water bodies has changed as the tributaries here are almost on extinction and the garbage mostly polythene could be seen piled up on the embankments as well as in these water bodies. The charm and glory are no longer visible. These canals of downtown Srinagar are in a very bad shape even as previous political dispensations have assured the people living around these water bodies that they would go for beautification and cleaning of these water canals. shelter sheds and old boats were removed from these water bodies, rehabilitated but the water canals could not get back to their pristine glory. It was observed during field visits and interaction with local people near Ziyarat of Syed Mansoor Sahab (R.A), the foot bridge established over it looks like an unclean drainage system, solid waste is being deposited in all water canals which were once having clean water, thus aqua system has been completely destroyed because of filth around these water bodies. Beyond the visible degradation of these water bodies, the water’s transformation from bluish-green to hazel due to heightened turbidity. The people living around these water canals of Srinagar want either the government to close down these water tributaries or get them back in the clean shape. Environmental Expert M RD Kundangar,

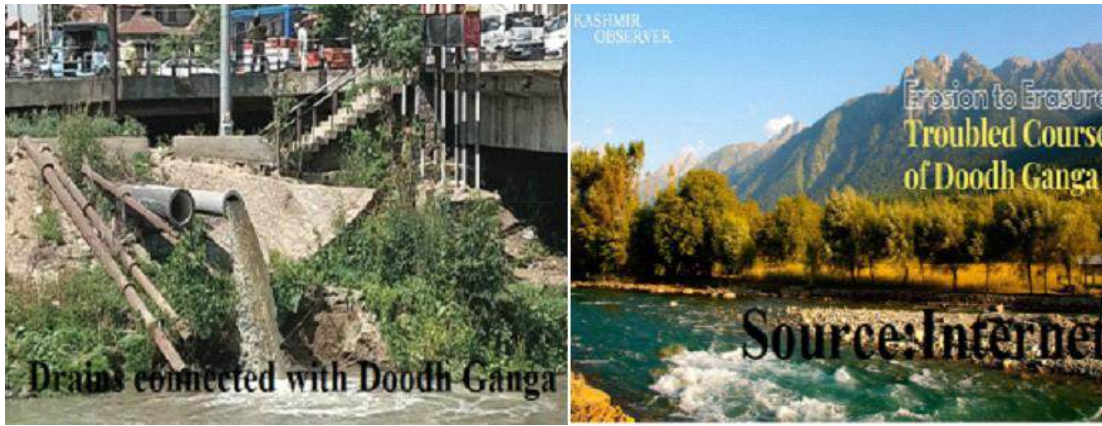


Professor Adnan Abubakar, told that major departments including Irrigation and Flood Control (I&FC) and Lakes and Waterways Development Authority (LAWDA) must play their crucial role in saving these water bodies. Professor Kundangar told that the Chounti Koul of Srinagar, basically the exit channel of Dal Lake and river Jhelum, was also being used for water transportation while Sonar Koul was a tributary of river Jhelum. The experts told that it is the responsibility of Lakes and Water Ways Development Authority, SMC etc to speed up the rehabilitation process.

Rakh-e-Arth. Once a wetland at Bemina, Rakh-e-Arth has been turned into a site for rehabilitation of Dal dwellers shifted from the water body for its preservation. In 2007, the government of J&K announced to relocate Dal dwellers and rehabilitate them at Rakh-e-Arth which was supposed to be developed on modern lines with all facilities like hospitals, schools and other amenities. However, as reported by locals lack of health, education and transportation facilities is causing immense hardships for residents. The elders of the area shared that Bemina wetland was changed into residential colony in early 1990s by a powerful group of people at that time. The wetland was sold at very low cost at that time as told by some people. The field visit revealed that Bemina wetland is turned into residential colony now. The pictures of Bemina Nambal once known still tells its story that once it was a big water body in Srinagar.



Doodh Ganga: Doodh Ganga river, meaning “milk river” in hindi, originates from the Pir Panjal glaciers, a major tributary of Jhelum river in Kashmir valley, is flowing through Srinagar. It is a crucial source of drinking water for Budgam and Srinagar’s uptown areas, once a gushing river with crystal clear waters is facing significant challenges including pollution, encroachment and illegal mining. At present it looks like a sewage canal as in absence of Sewage Treatment Plants, all the drains in the twin districts empty into Doodh Ganga. Doodh Ganga passed through district Srinagar via Aloochoi Bagh and Batamaloo. It was found that till few years ago, one of its canals passed through Batamaloo, shockingly this was gradually buried under concrete structures, parks and bus stands from Batamaloo to Shalteng in the full glare



of authorities. What remains of the river in district Srinagar is just a name—Doodh Ganga Road. It is encouraging that Govt. has initiated a project to restore and clean Doodh Ganga in Srinagar, with the National Green Tribunal (NGT).

Jhelum River: The Jhelum River, also called as Vyath in Kashmir, is the main river flowing through Srinagar. It originates from the Verinag Spring, located at the foot of the Pir Panjal range district Anantnag of Kashmir valley, India. Starting from Verinag, a famous tourist place in Kashmir, Jhelum flows nearly 203 kilometers in Jammu Kashmir region out of its total length of 725 km. Jhelum river flows northwest through through the valley, passing through Srinagar and Wular Lake, before entering Pakistan-administered Kashmir and eventually merging with the Chenab River. Jhelum showcases spectacular views while coursing through the valleys and terrains of this region.



CONCLUSION

In Kashmir, the elaborate network of water channels, ranging in size, interconnect all the major water bodies in Kashmir, such as Anchar Lake, Dal Lake, and the Jhelum River. The continuous flow of water guarantees that its quality remain consistently clean and suitable for drinking at all times. Water bodies of Kashmir are, in true sense, unison of nature and soul. The sounds of water falling and the solace a human soul feels is truly divine. Dal lake,

Anchar, Hokersur etc of district Srinagar were well known for their role since long. The researchers reported that quality of water has worsened since 1970 because liquid and solid waste enters in water bodies from the catchment areas. The majority of the people during discussion reported that role of policy makers in not satisfactory as water bodies are deteriorating day by day. We need to protect our water bodies as they have importance in our lives and people should take a lead in this otherwise we are doomed. It is concluded that it is the responsibility of Lakes and Water Ways Development Authority, SMC, NGO's, Religious leaders etc to speed up the rehabilitation process.

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