

# Water Pollution: Its Causes and Effects on Human Health in Capital Srinagar.

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**Abstract:** *Water contamination happens when futile materials enter in to water, changes the state of water and unsafe to condition and human wellbeing. Dirtied water is one of the fundamental drivers of various sicknesses. Dirtied water influences the soundness of present age as well as influences the life of future ages since its impact stays for long. Waterway contamination has been one of the principle themes in nature issue of urban Srinagar, the capital city of Jammu and Kashmir. In this investigation, the inspecting was finished with the assistance of stratified arbitrary examining technique by choosing 155 respondents from the two sides of the bank of Jahlem waterway. In this examination, the respondents were purposively chosen based on proximity i.e. those respondents were chosen who are dwelling around the 1km from both side of the bank of Jahlem waterway. The examination was directed that every one of the respondents wellbeing status have been influenced in either kidney issue or even in neural confusion was made by water pollution in the investigation zone and this investigation likewise demonstrates the that lion's share of the male respondents who are influenced by dirtied water when contrasted with female.*

**Keywords:** futile materials, insanitary, water contamination, wellbeing status

## Introduction

Water is the most imperative component among the natural resources, and is basic for the survival of every single living being including human, food production, and financial advancement. Today there are numerous urban areas overall confronting an intense lack of water and about 40 percent of the world's food supply is developed under water system and a wide assortment of modern procedures relies upon water. Nature, financial development, and advancements are on the whole exceedingly affected by water-its

provincial and regular accessibility, and the nature of surface and groundwater. The nature of water is influenced by human exercises and is declining because of the rise of urbanization, population growth, mechanical creation, environmental change and different components. The subsequent water contamination is a genuine danger to the prosperity of both the Earth and its populace. Dirtied water influences the soundness of present age as well as influences the life of future ages since its impact stays for long. Bhopal gas catastrophe case can be named for instance. Bhopal Gas catastrophe is the world's most exceedingly terrible modern debacle. Concentrate by official logical offices demonstrates that ground water sulling has spread 40 meters deep and up to 3.5 km from the abandoned factory. Almost 40000 people have consumed this contaminated water in the course of the lastover the past 14 to 20 years and cancers, birth defects and sicknesses identified with skin, lungs, mind, kidneys and liver are a few times more predominant in that group than anyplace else in the nation. Release of domestic and industrial sewage wastes, spillage from water tanks, marine dumping, radioactive waste and climatic disposition are real reasons for water contamination. Substantial metals that arranged off and industrial waste can gather in lakes and waterway, providing hurtful to people and creatures. Poisons in industrial waste are the major cause of immune suppression, reproductive failure and acute poisoning. Irresistible infections, similar to cholera, typhoid fever consider by the T Juneja Chauhdary (2013). Different diseases gastroenteritis, diarrhea, vomiting, skin and kidney issue are spreading through unclean water MA Khan Chouriam (2011). Water contaminations are killing, mollusks, marine flying creatures, fishes, shellfish and other ocean life forms that give as nourishment to human. Insecticides like DDT focus is expanding along the evolved way of life. These insecticides are hurtful for people think about by FD Owa (2013).

### **Statement of the problem**

The present investigation plans to break down the effect of contaminated water of Jahlem River on human health by making a descriptive study in the capital Srinagar of Jammu and Kashmir. The wellsprings of water contamination are household and farming squanders, pollution growth, unreasonable utilization of pesticides and fertilizers and urbanization. It is basic to the specialist to research the wellsprings of water

contamination which causes bacterial, viral and parasitic illnesses are spreading through dirtied water of Jahlem River and influencing the human health of the general population of Srinagar.

## Objectives

1. To study the reasons for water pollution of Jahlem river at Srinagar.
2. To study the impacts of water pollution on human wellbeing at Srinagar by the Jhelum river.

## Impacts of water pollution on human health

There is a greater connection amongst contamination and human health. Infection causing microorganisms are known as pathogens and these pathogens are spreading disease straightforwardly among people. A few pathogens are worldwide some are found in all around characterized territory. Numerous water borne diseases are spreading man to man. Heavy rainfall and floods are related to extreme climate and making diverse illnesses for created and creating nations. 10% of the populace relies upon sustenance and vegetables that are developed in grimy water. Numerous waterborne infectious diseases are connected with fecal contamination of water sources and results in fecal-oral course of disease. Wellbeing hazard connected with contaminated water includes different diseases, for example, respiratory disease, tumor, diarrhea disease, neurological disorder and cardiovascular disease. Nitrogenous chemicals are in charge of malignancy and blue infant disorder. Demise rate because of growth is higher in country zones than urban territories in light of the fact that urban occupants utilize treated water for drinking while rustic individuals don't have office of treated water and utilize untreated water. Destitute individuals are at more serious danger of disease because of impolite sanitation, cleanliness and water supply. Tainted water has extensive destructive impacts in those ladies who are presented to chemicals amid pregnancy; it prompts the expanded rate of low birth weight subsequently fetal health is influenced. Low quality water decimates the harvest production and infects our food which is perilous for sea-going life and human life. Poisons aggravate the natural way of life and substantial metals, particularly press influences the respiratory arrangement of fishes. An iron stops up in to angle gills and it is deadly to fishes, when these fishes are eaten by human leads to the

major health problems. Metal polluted water prompts hair loss, liver cirrhosis, renal disappointment and neural issue.

## Bacterial diseases

Rough drinking water and fecal contamination of water is the real reason diarrhea. Campylobacter jejuni spread diarrhea 4% to 15% around the world. Fever, stomach torment, sickness, headache are real manifestations of diarrhea. Great hygienic practices and utilization of anti-infection agents can keep this disease. Illness cholera is caused by the contaminated water. Vibrio Cholerae is in charge of this infection. This bacterium produces poisons in stomach related tracts. The manifestations of this sickness are watery looseness of the bowels, nausea, vomiting and watery diarrhea the runs prompts dryness and renal disappointment. Hostile to microbial treatment is utilized to get free of this illness.

Shigellosis is a bacterial infection caused by Shigella microbes. It influences the stomach related tract of people and harms the intestinal covering. Watery or ridiculous bloody diarrhea, abdominal cramps, vomiting and nausea are side effects and it can be cured with anti-infection agents and great clean practice. Salmonellosis infects the intestinal area. Salmonella microbes are found in tainted water and it brings about redness of digestive system and regularly passing happens. Anti-infection agents are recommended for this disease.

## Viral diseases

Hepatitis is a viral sickness caused by polluted water and infects the liver. Jaundice, loss of appetite, fatigue, discomfort and high fever are side effects of hepatitis. In the event that it holds on for quite a while it might be lethal and brings about death. Antibody is available for hepatitis and by embracing great clean practice; one can dispose of this infection. Encephalitis is provocative illness spread by bite of tainted mosquitoes. Culex mosquito lays their eggs in dirtied water. The vast majority don't demonstrate any manifestations yet a few side effects are headache, high fever, muscle solidness, seizures however in cruel cases obviousness and loss of motion comes about. No antibody is accessible for this sickness.

## Parasitic diseases

Cryptosporidiosis is a parasitic disease caused by the cryptosporidium parvum. It is general infection and symptoms, free or watery dishes, stomach spasms and upset stomach. Cryptosporidium is impervious to sanitization and influences immune system and it is the reason of diarrhea and vomiting in people. Galloping amoeba is caused by the Entamoeba histolytica and influences stomach lining. This parasite experiences blister and non-growth frame. Disease happens when sore found in dirty water and it is gulped. Manifestations are fever, chills and watery diarrhea. As indicated by WHO, diarrheal cases are around 4 billion and results in 2.2 million passings. Giardiasis is caused by Giardia lamblia. Cells of intestinal lining may move toward becoming harm. Giardia is impervious to stormy temperature and disinfectant. Some of the time it is known as intravelers' sickness. Individuals experiencing giardiasis have indications swelling, overabundance gas, watery diarrhea and weight reduction.

## Sampling

The examination means to research the effect of dirtied water of Jahlem human wellbeing in Srinagar Jammu and Kashmir State. With a specific end goal to accomplish the focused on destinations, the specialist has chosen the purposely chose in the capital Srinagar. In this investigation, the researcher has chosen the respondents the individuals who are residing on the bank of the Jahlem River with in the 1 kilometer from the both sides. The right side of the bank of Jahlem River, where the aggregate populace is 425 inside the 1km and among them the researcher has chosen the 85 respondents which equivalent to 20% populace with the help of stratified sampling strategy. So also, same technique were additionally connected for left side of the bank of river, where the aggregate populace is 350 inside the 1km and among them the analyst has chosen 70 respondents which likewise equivalent to speaks to 20% populace with the assistance of stratified random testing strategy. In this way, the aggregate populace of universe is 775, and among them, the researcher has chosen 20% populace of the two sides of the bank of river which equals to 155 respondents with the assistance of stratified random sampling technique.

**Table 1:** Both sides of the Banks of River, the Distribution of the selected 155 Respondents.

<b>Jahlem river</b>	<b>No of respondents</b>	<b>percentage</b>
Right side bank of river	85	54.84
Left side bank of river	70	45.16
Total	155	100.00

Table 1 represents the data on both sides of the river distribution of the respondents. It could be noted that out of the total 155 respondents, 54.84 percent of the respondents belongs to the right side of the bank of the Jahlem river and 45.16 belongs to the left side of the bank of the Jahlem river. It could be seen that mostly respondents belongs to the right side of the bank of the Jahlem river.

**Table 2:** Gender wise Distribution of the selected 155 Respondents.

<b>Gender group</b>	<b>No of respondents</b>	<b>percentage</b>
Male	88	56.77
Female	67	43.22
Total	155	100.00

Table 2 presents data on gender wise distribution of the respondents. It could be noted that out of the total 155 respondents, 56.77 percent of the respondents belongs to the male group and 43.22 percent belongs to female gender group. It is clear from the above table that the majority of the respondents belong to the male gender group.

**Table 3:** Both sides of the Bank of the River, Rating to the Impact of Water Pollution on Human Health.

<b>Variables</b>	<b>Right Side of the Bank of River</b>	<b>Left Side of the Bank of River</b>	<b>Mean</b>

Cholera	3.34	3.02	3.18
Typhoid	3.22	2.78	3.00
Vomiting	2.96	3.45	3.20
Skin problem	2.95	2.83	2.89
Kidney problem	3.70	4.12	3.91
Diarrhea	3.61	4.00	3.80
Hair loss	2.59	2.36	2.47
Liver cirrhosis	3.07	3.30	3.18
Neural disorder	1.02	2.25	1.63
Hepatitis	2.08	1.76	1.92
Average	2.85	2.98	2.92

Data presented in the table 3 shows the right side and left side wise respondents, rating to the impact of water pollution on their health status. It could be noted that out of the 10 impacts of water pollution on health status, the respondents rated the Kidney problem as their first level observed health impact caused by water pollution and it is evident from their secured mean score of 3.91 on a 5 point rating scale. Diarrhea is rated at second level health impact caused by polluted water and it is estimated from the respondents, secured mean score of 3.80 on a 5 point rating scale. The Vomiting as their third level observed health impact caused by water pollution and it is evident from their secured mean score of 3.20 on a 5 point rating scale. Cholera and Liver cirrhosis are the same forth level health impact caused by water pollution and it is the evident from their secured mean score of 3.18 on a 5 point rating scale. The respondents rated the Typhoid as their realized fifth level impact of noise pollution on their health status and it is revealed from their secured mean score of 3.00 on a 5 point rating scale. Skin problem is rated at sixth level impact health status caused by water pollution and it is observed from the respondents, secured mean score of 2.89 on a 5 point rating scale. Hair loss is rated at their observed seventh level health impact caused by polluted water and it is evident from their secured mean score of 2.47 on a 5 point rating scale. Hepatitis is related at 8<sup>th</sup>

level health impact caused by water pollution and it is evident from their respondent' secured mean score of 1.92 on a 5 point rating scale. Neural disorder is rated at last level health impact caused by water pollution and it is evident from the respondents' secured mean score of 1.68 on 5 point rating scale.

The respondents of the Left side of the bank of river Jahlem river ranked the first position in their overall rated impact of water pollution on human health status and it is reflected from their secured overall mean score of 2.98 on a 5 point rating scale. The respondents from the Right side of the bank of Jahlem river records the second position overall rated impact of water pollution on human health and it is reflected from their secured mean score of 2.85 on a 5 point rating scale.

**Table 4:** Gender wise respondents' rating to the impact of Water pollution on human health.

Variables	Male	Female	Mean
Cholera	3.36	3.00	3.18
Typhoid	2.99	3.01	3.00
Vomiting	2.98	3.43	3.20
Skin problem	3.00	2.78	2.89
Kidney problem	4.10	3.72	3.91
Diarrhea	4.21	3.40	3.80
Hair loss	2.95	1.90	2.42
Liver cirrhosis	3.16	3.21	3.18
Neural disorder	1.27	2.00	1.63
Hepatitis	2.00	1.80	1.09
Average	3.02	2.82	2.92



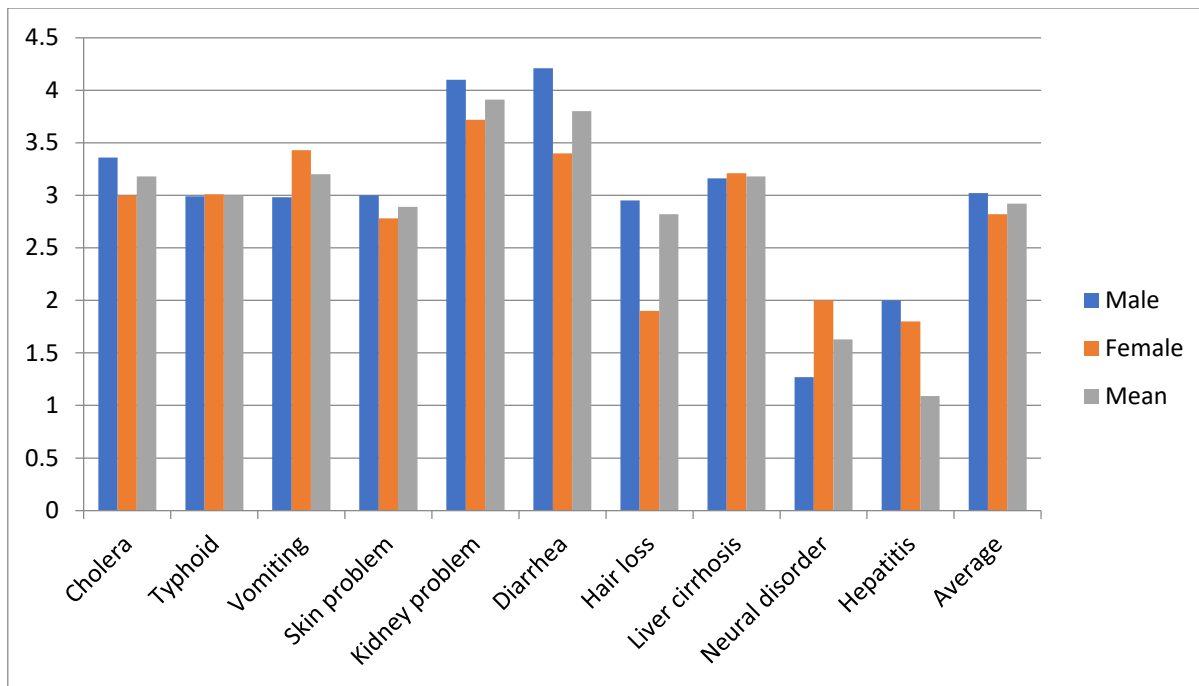


Table 4 presents the data on the gender wise respondents' rating to the impact of water pollution on their status. The male respondents' rank the first position in their overall observed impact human health caused by water pollution and it is evident from their secured mean score of 3.02 on a 5 point rating scale. The female respondents' take the second position in their overall observed impact of water pollution and it is evident from their secured mean score of 2.82 on a rating scale.

## Tools of Data Collection

The primary data were collected with the help of structured interview schedule. To avoid the prejudice and to know the exact ground realities, the researcher has also employed the observation technique in the study area. Apart from the primary data, secondary data were collected through the internet, newspapers, books, pollution control office, and state or district census reports.

## Conclusion

Water contamination is a worldwide issue and world group is confronting most noticeably awful consequences of dirtied water. Significant wellsprings of water contamination are arrival of residential and horticulture squanders, population growth, superfluous utilization of pesticides and manures and

urbanization. Bacterial, viral and parasitic disease are spreading through contaminated water and influencing human health. It is proposed that there ought to be appropriate waste transfer framework and waste ought to be dealt with before entering in to river. The above table demonstrates that the general population of Srinagar who are enduring different diseases like as; Cholera, Typhoid, Vomiting, Skin issue, Kidney issue, Diarrhea, Hair misfortune, Liver cirrhosis, Neural turmoil, and Hepatitis due to dirtied water of Jahlem waterway. It demonstrates that Kidney issue is discovered more than different infections (3.91). The exploration diary additionally demonstrates that male patient is found than the female. Dirtied water of Jahlem river isn't perilous for show age yet it will likewise influence the life of future age.

## Recommendations

It is vital that environmental instruction is presented in schools and be made necessary. Elected, State and Local Government ought to build up organizations to analyze our condition and similarly to make certain that our condition is kept spotless and free fromrefuge dumps.

Industrial homes or family ought to similarly teach a clean domain primarily in their area, as indicated by be aphorism that says commitments creatures at home.

Our industries ought to go progress in endeavoring to reuse these losses as opposed to dumping them for rain water to evacuate these reject into our waterways and streams making them undrinkable.

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