



IMPACT OF HUMAN ACTIVITY ON RAWANWADI LAKE

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ABSTRACT

The addition of various kind of pollutant and nutrients through a various agnancies. Especially human activities like sewage, disposal, agricultural runoff, municipal solid waste, etc. in water bodies, bring about a serious change in the quality of water. This made faster rate of deterioration of fresh water quality. This lead to carry serious disease, like chicken pox, fever, leukemia, cancer and various disease cause serious problem. From last three year author going to investigate the survival of human activity lead to disturbance lake bodies to carry water pollution. The physicochemical parameter like Total hardness (TH), Dissolve solid (TDS), Alkalinity, Phosphate, dissolve Oxygen carried by author to conclude that, these parameter was not exceeding the desirable limit for drinking of water, which make health hazard. The present study will be helpful to improve management plan for groundwater quality and control authority. Key words: Human activity, Fresh water, Rawanwadi lake, Health hazard.

INTRODUCTION

Much of the current concern regard to environmental quality is focused on water, because of its importance in maintaining the human health and health of ecosystem. Fresh water is finite resource, essential for agriculture industry and even in human existence. Without fresh water of adequate quantity and quality sustainable development will not be possible,(Kumar 1997). Rawanwadi lake is in Bhandara District near Wakeshwar village in Pauni Tahasil. This lake is situated at GSP Latitude 21 degree 43', 37.71 N and Longitude 79 degree 43'. 19.00 E, with adjoining small village and covered with agriculture land.

Which have rice is main crop. About 85% people depend upon agriculture and related jobs. This spot known to natural beauty. There is a temple of ma Durga, so people from with family come for worship to make different type of food. People gather them every day, come from long distance for enjoyment. Such a water of lake contaminated by human behavior. They pollute the surrounding environment; they change the base system of ecosystem.(Twari.19880). Ground water is believed to be comparatively much hygienic than the surface water. This multifunctional activity of human ground water gets polluted in many ways. As it socks through soil, the water can dissolve hardness material that are present on ground, water becoming polluted. Which degraded with bacteria, radon arsenic uranium and other material? Other pollutant finds their way onto the land from commercial activity like improper waste disposal road salting fuel spills. And residential activity by former use of fertilizer and pesticides.disposal of household disposal chemical can pollute ground water when done improperly. (Sethi 2001).

MATERIALS AND METHOD

All the representative water sample was collected in clean phosphate free polyethylene bottle that have been pre washed with dilute water. Physicochemical parameters weredetermined using slandered procedure, (ICMR, Manual 1977). (Trivedi and Goel.1986). Alkalinity was determined by titrating a known volume of water sample with 0.02M, HCL. Dissolve Oxygen (DO) was determine by Winkler titration. Total dissolve solid (TDS) was determining gravimetrically by evaporating known volume of water to dryness in a pre-weight crucible on a steam bath. Total

hardness was determined by titrating with EDTA using Enrichment block T. indicator.

Sampling Location;

Wet side of lake (Cattle grazing)
Near bank of lake (Fecal Contamination)
Upper land nearby lake (Agricultural Remolding)

RESULT AND DISCUSSION

From table 1.Guideline for drinking water quality is given by WHO (1996). According to this, desirable and permissible limit crossed by sample testing authority. The total hardness of water 730-741 mg/lit. Total dissolve solid

1509-1610 mg/lit. it appear that ground water of lake tested where not exceeding the desirable limit for drinking. Total alkalinity depend upon the PH of water, high alkalinity indicate pollution. Which cause mainly due to hydro-oxide, carbonate, hydrocarbon, phosphate. Alkalinity recorded about 361-371 mg/lit. and phosphate about 70-80 mg/lit. is the ability to change the PH of water. DO recorded about 6.9 to 7.9 is not desirable for drinking water and other purposes, DO can favor the anaerobic decomposition of organic waste and carbonaceous material to contaminate water.

Table No. 1, Chemical data of groundwater sampling silt, all parameter express in mg/lit.

Parameter	BSI and WHO Desirable Limit	S1	S2	S3	S4	Mean
TH	200-600	730	738	731	741	730
TDS	500-1500	1510	1598	1609	1530	1530
T. Alkalinity	200-300	361	340	371	363	361
Phosphate	50-70	71.60	79.03	80.00	79.60	79.00
DO	5.04-7.00	6.9	7.8	7.9	8.3	7.8

CONCLUSION

the hard pollutant and chemical like carbonaceous material, florin, phosphate, phenol are come from of residue like sewage disposal, fish culture, irrigation, domestic use, washing cloth and activity of grazing animal and human activity, which produce environmental degradation rapidly cause lake water pollution. (Vena.et.all 2016). The quality of drinking water is fundamental eminent of the health. Limpid and immaculate drinking water is useful for all human activity. Hence, an internationally accepted human right to reduce gathering of abundant people to asses a sustainable development.(Hem.JD.1991)Also study will be helpful to improve management plan for providing good water for crop and human drinking quality to stop health hazard.

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