

An Assessment of Water Quality of Godavari River Water in Nashik

**Thorat Ajinkya¹, Nimje Rajashree², Bhatule Rushikesh³, Bakare Shraddha⁴,
Prof. Gawande Y.B.⁵**

Student of Department of Civil Engineering, S.N.D College of Engineering & Research Center, Yeola¹

Student of Department of Civil Engineering, S.N.D College of Engineering & Research Center, Yeola²

Student of Department of Civil Engineering, S.N.D College of Engineering & Research Center, Yeola³

Student, Department of Civil Engineering, S.N.D College of Engineering & Research Center, Yeola⁴

Professor, Department of Civil Engineering, S.N.D College of Engineering & Research Center, Yeola⁵

Abstract: The study covers about 65 km of the river starting from Kushawart Trimbakeswar to Saikheda Village, from where it enters the city. Ten locations were selected for collection of water samples from the river and the samples were analyzed for water quality parameters in the Environmental Laboratory of the Maharashtra Pollution Control Board (MPCB), Nasik. These data as well as data from the Central Pollution Control Board (CPCB) were used to compute the National Sanitation Foundation Water Quality Index (NSFWQI), mostly applicable in the USA and India. s. These all activities resulted in degradation of water quality. These all problems are largely concentrated in and around urban areas. Keeping this view in the account systematic study has been carried out the water quality of Godavari river in Nashik city. The overall values showed good water quality status (WQI 133.44) at upper stream in the study area, but as it enters in urban area water quality becomes deteriorate (WQI 35.01). The field observations reveal that water quality is declining due to many human activities mainly industrial, domestic and religious waste. To analyze the water quality index (WQI) is the main aim of the research with remedial measures to mitigate the deterioration and related consequences in future.

INTRODUCTION

Fresh water is a scarce natural resource today, as 97% of the surface water is saline water of the oceans while 2% is locked up in ice-caps and glaciers and the remaining 1% is expensive to be exploited from the ground. Many human activities like agriculture, industrial, tourism and domestic, etc., depend upon the river. River has great potential of economic change. Many villages which are situated along river experienced rapid economic changes. Bacteria in the water consume oxygen when organic matter decays. Thus, excess organic material in rivers can cause eutrophic conditions, in which there is a deficiency of oxygen, which can cause a water body to "die." Measurement of many other parameters like BOD, Fecal coli also can help us to understand pollution of water body.

LITERATURE SURVEY

Sr.no	Paper	Author	Description
1	Water Quality Assessment of the Godavari River.	Ajay D. Chavan, M.P.Sharma and Renu Bhargava	Samples were analyzed for SS, TDS, BOD, COD, pH, total hardness, calcium hardness, total alkalinity, chlorides, sodium/potassium, sulphate, phosphate, nitrate, fecal coliform, and electrical conductivity, as per standard methods of analysis.

2	An assessment of water quality index of Godavari river water in Nashik city, Maharashtra.	Ashali Chandrakant Kharake1 Vaishali Sanjay Raut2	The analysis report of sample sites has been carried out as per BIS limits.
---	---	--	---

RESULT

howing values of measured values of various parameters. Data show that water pollution increases as the river flows through the urban area in which pH values show alkaline or acidic behavior of water, TS and TDS affecting turbidity of water. In view of the above, it is proposed to review and add the additional STPs, ETPs, Municipal Solid Waste (MSW) management, hospital/biomedical facilities in the area along with low cost sanitation. Data show that water pollution increases as the river flows through the urban area in which pH values show alkaline or acidic behavior of water, TS and TDS affecting turbidity of water.

CONCLUSION

To evaluate water quality of Godavari river 4 sampling stations were determined, and 4 parameters were selected. The physio-chemical analysis of water samples indicates that the river water sample has alkaline properties. Conclusions The water quality assessment of a 65 km stretch of Godavari River in Nasik District from Kushawart to Saikheda village in Maharashtra State indicates that the river is heavily polluted due to 125 large and 350 medium scale units and about 2,500 small scale units, in addition to massive growth of some other industries like laundry, hotels, restaurants, pathological laboratories, nursing homes, etc., which are discharging into the river.

REFERENCES

1. Coconut Shell Building Concrete(Csc), Thorat Ajinkya*1, Nimje Rajashree*2, Bhatule Rushikesh*3, Bakare Shradha*4, Prof. Gawande Y.B.*5, Students of S.N.D College Of Engineering & Research Center, Yeola 2022.
2. Water Quality Assessment of the Godavari River Ajay D. Chavan, M.P.Sharma and Renu Bhargava, July 2009
- An assessment of water quality index of Godavari river water in Nashik city, Maharashtra Ashali Chandrakant Kharake, Vaishali Sanjay Raut, 2 June 2021