

UGC MINOR RESEARCH PROJECT

TITLE : ASSESMENT OF GROUND WATER QUALITY AROUND
SOLID WASTE DUMP SITE IN NASHIK MUNICIPAL,
MAHARASHTRA

File No. : 47-342/12(WRO)

Name of Teacher : Ramnath Sampat Pagar

Subject : Chemistry

Designation : Associate Professor

Working place : M.V.P. Samaj' S.V.K.T. Arts , Science and Commerce College
Deolali- Camp, Nashik (Maharashtra)

Introduction:

Municipal solid waste [MSW] is growing menace in present times population increase in many folds. Land filling is the simplest, cheapest and most cost effective method of disposing waste in both developed & developing nations of the world. Wastes placed in landfills are subject to either groundwater underflow infiltration from precipitation and as water percolates through the waste, It picks up a variety of organic & inorganic compounds. Groundwater is an important water resource in both urban & rural areas of India. This useful resource is under threat of pollution. The high rate of exploitation of ground water than its recharging, inappropriate dumping of solid & liquid waste to the deterioration of ground water quality.

The major objective of assessing the possible impact of Leachate percolation on ground water quality in the vicinity of an unlined MSW Practices at Nashik municipal in the Maharashtra. The study area is located in Nashik Municipal is one of the fast growing cities in Maharashtra, India. The total population about 20 lakhs, It is situated at a distance 200 km from Mumbai & Pune. It is mythological, historical, social & cultural import

Water is most essential commodity for life. The quality of water is getting prime importance in research. Survey of literature reveals that what kind of study in ground water remains no appropriate assessment the problem it have impact on solid waste management.

It is observed the concentration of heavy metals like Cd, Hg, Pb, As etc. lead to toxicity in living organism by their growth & production.

The heavy metals present in MSW the total dissolved solids varies more in rainy season as compared with permissible limits.

It is Concluded that solid waste disposal caused by human activities protected through awareness and orientation it reduced contaminants in ground water some strategies are used for soil remediation.

The quality of ground water by the deposits in precipitation of domestic and industrial origin suspended by inorganic & organic substances. The significant rise of total dissolved solid in ground water percolated in well and borewell water in the different depth of soil.

The contaminated ground water were analysed by different standard parameters of heavy metals compared WHO. tolerance level. Sampling procedures internationally accepted were used to temp range 2°C to 42°C.

The total hardness of all samples of water exceeded the permissible limit. The water becomes saline categories unsuitable for drinking purpose.

The analysis focus on the impact on solid waste practices on ground water depends upon climate change. The heavy metals present in MSW the total dissolved solids varies more in rainy season as compared with permissible limits.

I have observed that ground water mostly contaminated by arsenic metal in village. The study concentrate on estimation of arsenic and other heavy metal in all samples the excessive level causes serious problem in environment.

It can be intake in human being in the form of water and food it causes serious disease hence it should be planned to dispose open dumping of MSW and prepared action plan.



Mr. Pagar R.S.
Principal Investigator



Dr. V.J. Medhane

PRINCIPAL

Smt. Vimlaben Khimji Tejokaya,
Arts, Science & Commerce College,
Deolali-Camp, (Nasik)