

15

## A Comparative Analysis of Quality of Potable Water in Selected Areas of Mumbai

Dr. Moushumi Datta

Associate Professor, Department of Geography, Nagindas Khandwala College, Mumbai-64.

### Abstract

Water pollution damages the quality of water. Due to Mumbai's coastal location and limited landmass, Mumbai is always at a danger of sea water intrusion and groundwater contamination. For this study the city of Mumbai is chosen. The main **objectives** of the study are to find out the sources of drinking water in the surveyed areas, to understand the causes of water pollution in the surveyed areas, to test the quality of drinking water of the collected samples and to recommend applicable solutions. The **research methodology** is divided into three stages. In the pre-field stage literature review was undertaken and a close ended questionnaire was prepared. In the field stage a survey of 120 randomly selected samples was undertaken in selected areas in North Mumbai. A total of 15 samples of drinking water were collected in the areas surveyed. In the post-field stage the water was carried to a certified laboratory and pH values were obtained. The results have been analysed and represented using MS Office 2016. The **findings** bring out that 78% of the respondents have 5 members. 72% of respondents get water from municipal sources. 42% survive on water supplied through private tankers. 6% people use water drawn from private wells and hand pumps. This paper brings out the fact that people have to incur expenditure on purchase of portable water. It can be observed that maximum people get water for less than 2 hours followed by 2-4 hours and 24 hours. Out of the total surveyed 78 respondents have experienced problems related to the quality of water, however, only 66 respondents have so far complained about the same. Just 6 people have got the quality of water checked. It can be observed that out of 120, 96 of them boil water before consuming and 18 of them use a water purifier and 6 of them use other methods. The research brings out the reasons due to which people feel the need to treat water before consuming it. Most of the people i.e. 78 respondents store water in tanks. 48 respondents clean their storage places just once a year. It is found that the overall satisfaction with the quality of potable water is poor. From the analysis of the water samples collected it is apparent that the pH values are on the acidic side, but, are not very harmful. To conclude it can be said that the quality of water in the city is average. However it can be prevented from further deterioration and contamination with hygienic practices and preventive measures.