ABSTRACT

Pure water is the world' s first and foremost medicine; it goes exactly what it says on the tin. Water is the driving force of nature. Water scarcity is considered one of the leading challenges of the 21st century that is growing worse with each passing day. For the examination of water quality and its acceptability for drinking and other purposes WQI is used which is basically mathematical in nature. The weight of each parameter is find out using the its own standard and the given weight denotes the parameter's importance and impact on the index. Total 30 Sample of water from four villages of Tehsil Phandar were collected in July 2021. Random sampling was carried out and the protocols of EPA 2001 have followed during the sampling of water. The water samples were carried in bottles made of polyethylene the capacity of 1.5 liter which were double rinsed by distilled water. Their caps were firmly potted in order to avoid leakage. Majority of the parameters were within the permissible value of WHO but few of the parameters were surpassing the WHO threshold limit in few villages. The temperature of water ranged from 13 to 18 degree Celsius, turbidity ranges from 1 NTU to 55 NTU, pH ranged between 6.8 to 7.5, TDS 85 to 600 mg/L, TH 80 mg/L to 600 mg/L,TFC ranged from 8 CFU/100ml to 125 CFU/100ml, Nitrites (0.4mg/L to 3 mg/L), Nitrates (2 to 56 mg/L) DO (2 mg/L to 5 mg/L), Ca (15 to 253 mg/L), Mg (16mg/L to 57mg/L), Cl (25 to 235 mg/L), EC(200 to 400 µS/cm). WQI of Phandar was >100 hence making it unfit for drinking where the WQI of Taru was 45 and was "good" for drinking. The health data showed the prevalence of the dieses in the study which are waterborne and of major concern. In Pakistan, the main problem of drinking water contamination is due to the presence of different bacteriological groups, and diarrhea is one of the most prevalent water borne disease. The data obtained from this study is vital for further researchers and policy makers. A comprehensive study is further needed to include the analysis of heavy metals and other agrochemical for a holistic study.