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Potability of Water among the Tribals of Vizianagaram Sub-plan Area, Andhra Pradesh: Microbiological and Physico-Chemical Analysis

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ABSTRACT The microbiological and physico-chemical parameters of drinking water sample from two village of Vizianagaram District were monitored. The microbiological analysis of Janjavathi river water showed very high faecal coliform counts and large number of colony forming units (CFU) that is, 540/100ml and 2.18*10⁸/ml as determined by MPN test and standard total plate count methods respectively. Borewell water from Sominaiduvalasa village showed 1600 coliforms per 100 ml sample and 4.3*10⁹ cfu/ml, suggesting that these waters are highly polluted with microbial pathogens and therefore are non-potable. Physico-chemical parameters such as pH, conductivity, Total Solids (TS), Total Dissolved Solids (TDS), total hardness, Calcium hardness, Magnesium thardness, chlorides, fluorides, sulphates and Iron were beyond the permissible limits in borewell water indicating that this water is non-potable.