

Indian Journal of Ecology (2019) 46(1): 23-28

Manuscript Number: 2786 NAAS Rating: 4.96

Assessment of Ground Water Quality Based on Socio Economical Activities in Cauvery River Bed of Tamil Nadu

T. Natarajan and V. Sekaran¹

Former Engineer, Commissionerate of Municipal Administration, Chennai & Research Scholar Anna University, Chennai-600 025, India ¹Department of Civil Engineering, E.G.S. Pillay Engineering College, Nagapattinam-611 002, India E-mail: natarajanenvcbe@gmail.com

Abstract: The present research work is to evaluate the correlation between socio economical activities and water quality of Cauvery river bed, Tamil Nadu. Thirty samples were collected from different locations of Cauvery river bed based on industrial development and social activities. The groundwater quality was analysed in the study area. This study indicated that the characteristics of water quality deteriorate in Erode and Karur areas when compared with other sampling points and exceeds the WHO limit. Mainly fluoride exceeds the permissible limits of 0.2 mg l⁻¹. This research proves that the impact of social and economical activities (industrial development) plays a key role in deterioration of groundwater quality.

Keywords: Water quality index, Pollution, Urbanization and industrialization, Self purification capacity, Assimilation ground water, Surface runoff