

IMPACT OF CLIMATE CHANGE

BIODIVERSITY & ENVIRONMENT

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Impact of Climate Change Biodiversity and Environment

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Chapter 3

Analysis of Physico-chemical Characteristics of Groundwater Samples of Pallikal Grama Panchayat, Thiruvananthapuram, Kerala

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Water is a key component in the quality of our lives, but society continues to contaminate this precious resource. Safe drinking water is essential to humans and other life forms. Historically, groundwater was considered to be safe to drink. However, majority of underground aquifers are now becoming contaminated with hazardous substances from various sources. The present study is carried out to estimate the groundwater quality of Pallikal Grama Panchayat. All parameters were analyzed in the laboratory by using the procedures of APHA (1995). The inhabitance of the study area consumes groundwater from open wells and bore wells for their existence. Thus, the present study is very significant to analyze the physico-chemical characteristics of groundwater especially from health point of view. It was found that the groundwater in the study area is contaminated with iron.

Introduction

Water is essential resource for life and good health and is necessary for livelihood of people; it provides media for complex metabolic activities of organisms and also a precious national asset (Rao *et al.*, 2007). Water is the principal need of life on earth. Groundwater is stored under the surface of the ground in the tiny pore spaces of geological formations. Groundwater makes up about 20 per cent of the world's