

ASSESSMENT OF PHYSICOCHEMICAL PROPERTIES OF WATER FROM LAKE CHAMO

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ABSTRACT

Water collected from Lake Chamo was examined and its physicochemical properties were studied. This study was conducted between July 2014 and April 2015. This period covered four succeeding seasons. October and April were considered as the rainy season, whereas July and January were considered as the dry season. Water samples were collected from the lake from three random sites for every season. Totally, collections were made four times, one for every season. The collected water samples were subjected to physicochemical analyses to check its properties such as pH, electrical conductivity (EC), total dissolved solids (TDS), total alkalinity (TA), and total hardness (TH). In addition, levels of certain ions such as chloride (Cl^-), nitrite (NO_2^-), nitrate (NO_3^-), phosphate (PO_4^{3-}) and sulphate (SO_4^{2-}) were also quantified. Physicochemical properties varied with every season. High salinity was reported from the waters of the lake. This could be the cause for the deteriorating environmental conditions in the lake, as well as the reduction in fish production. The quantity of nitrite ions was also several-fold higher than the admissible limits. To conclude, the waters of Lake Chamo did not show much variation in its physicochemical properties for different seasons, except in its salinity and nitrite levels.

KEYWORDS: Lake Chamo, Water Quality, Physicochemical Properties