ABSTRACT

Fluoride exists naturally in water sources and is derived from fluoride, the thirteenth most common element in the Earth's crust. It is well known that fluoride helps prevent and even reverse the early stages of tooth decay. The weathering of primary rocks and leading of fluoride – containing mineral in soils yield fluoride rich groundwater in India which is generally associated with low calcium content and high bicarbonate ions. The unfettered ground water tapping exacerbets the failure of drinking water sources and accelerates the entry of fluoride into groundwater.

The study area, Natham Taluk of Dindugul District is located in southern part of Tamil Nadu State. The study area Natham Taluk lies in the southern part of the Dindugul District and bounded by the Madurai District & the Theni District. The normal annual rainfall over the taluk varies from about 152 mm to 1289 mm.

The concentration of fluoride above 1.4 mg/L was observed in 15 villages in safe limit. The maximum concentration 2.9 was found at Sirugudi. The higher concentration is due to the rock water interaction. Recharging the groundwater in the higher concentration area may improve the groundwater quality.