
EXCESS FLOURIDE IN WELL WATER IN MAHAWELI SYSTEM -H AN ENVIRONMENTAL ISSUE

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In recent studies (1994-2000) it was shown that more than forty percent of wells has fluoride rich water in the North Central Province. The fluoride content of more than 1 mg/l was considered as fluoride rich water. The dental fluorosis had been identified as an endemic problem in dry zone areas in Sri Lanka. the unsightly brown discoloration of the teeth had led these young children affected in villages to a severe psychological impact. This problems is not confined only to Sri Lanka but also exists in other parts of the world such as India, China, South Africa, America. In addition, medical reports revealed that skeletal fluorosis patients has been identified in Kekirawa, Medirigiriya, and Jayanthipura in Sri Lanka.

Defluoridation of water could be done by different filter media such as serpentine, activated alumina, alum, charred bone meal. However, the main disadvantage of such material is that they are not locally available. This paper discusses results of a programme which introduced a low-cost defluoridator which uses freshly burnt bricks as the filter media to affected communities in the North Central Province.

Awareness programmes were conducted for students in schools, health staff, pre-school teachers, Grama Niladharis and Samurdhi Niyamakas in villages in North Central Province. There after 1000 defluoridators were distributed in stages (1994-2000) and they are in operation in different villages such as Olukarada, Maha Elgamuwa, Madatugama, Eppawela, Galnewa, Thalawa, Thapotha, Athumalpitiya and Patunagama in North Central Province,

The results clearly show that this low cost method could be easily carried out in order to get defluoridated water. The beneficiaries themselves were trained to change the filter medium in time in order to get best output from these defluoridatos. The efficiency level of these defluoridators changes from 85% removal of fluoride at the start and tapers down to 25% removal at the end of the cycle