

C-06: Acceptance of low cost fluoride removal filters at village level in Kekirawa

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The social and psychological impact on children with unsightly discolouration due to mottling of teeth secondary to high fluoride levels in their drinking water was well documented. Most of those affected, tried hard not to expose their front teeth while smiling. Furthermore, suicidal tendencies have been reported by some of these affected individuals. This problem now has risen to endemic levels in Sri Lanka specially in the North Central Province and certain other dry zone areas.

Therefore, a low cost household filter for fluoride removal, to required levels, was developed in the laboratory. A pilot scale study is being carried out presently with 25 filters in Kekirawa area in the Anuradhapura district. This low cost household filter was simply designed and it could achieve the village level operation and maintenance (VLOM) status. The filter medium, low temperature burnt clay was locally available.

The filter medium has to be changed every 3 months depending on the fluoride level of the well water. Additional contaminants are not present in the filter media.

Presently, 15 filters are in operation in Kekirawa and the reduction of fluoride is around 70 - 80% and is acceptable among villagers.